



@server

iSeries

Performance data files

*Version 5 Release 3*







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*Version 5 Release 3*

**Note**

Before using this information and the product it supports, read the information in "Notices," on page 139.

**Fifth Edition (August 2005)**

This edition applies to version 5, release 3, modification 0 of IBM Operating System/400 (product number 5722-SS1) and to all subsequent releases and modifications until otherwise indicated in new editions. This version does not run on all reduced instruction set computer (RISC) models nor does it run on CISC models.

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## Performance data files

Performance data is a set of information about the operation of a system (or network of systems) that can be used to understand response time and throughput. You can use performance data to make adjustments to programs, system attributes, and operations. These adjustments can improve response times and throughputs. Adjustments can also help you to predict the effects of certain changes to the system, operation, or program.

Collection Services collects performance data into a management collection object (\*MGTCOL). The Create Performance Data (CRTPFRDTA) command processes data from that collection object and stores the result into performance database files. The database files are divided into the following categories:

### Performance data files containing time interval data

These files contain performance data that is collected each interval. See "Performance data files containing time interval data" data for a list of these files, with a brief description and a link to complete information about each file. To understand where the data in these files comes from, refer to "Performance data files: Collection Services system category and file relationships" on page 4. When viewing these files, you might also find the "Performance data files: File abbreviations" on page 6 useful.

### Configuration data files

Configuration data is collected once per session. To understand where the data in these files comes from, refer to "Performance data files: Collection Services system category and file relationships" on page 4. You can find the QAPMCONF, QAPMHDWR, and QAPMSBSD files in the "Performance data files: Field data for configuration database files" on page 4

### Trace data files

Trace data is collected only when you choose to do so. You can find the QAPMDMPT file in the "Performance database files: Field data for trace database files" on page 4

Additional field information such as number of bytes and buffer position is available by using the Display File Field Description (DSPFFD) command available on the system. For example, type the following on any command line:

```
DSPFFD file(QSYS/QAPMCONF)
```

For more information about iSeries<sup>(TM)</sup> performance, see Performance.

---

## Performance data files containing time interval data

To view complete information about a performance data file, select the file you want to view from the list below (shown in alphabetical order).

File	Description
"Performance data files: QAPMAPPN" on page 11	APPN data
"Performance data files: QAPMASYN" on page 22	Asynchronous statistics (one per link)
"Performance data files: QAPMBSC" on page 23	Binary synchronous statistics (one per link)
"Performance data files: QAPMBUS" on page 24	Bus counters (one per bus)

File	Description
"Performance data files: QAPMCIOP" on page 25	Communications IOP data (one per IOP)
"Performance data files: QAPMDDI" on page 27	Distributed Digital Interface (DDI) data (one per link)
"Performance data files: QAPMDIOP" on page 29	Storage device IOP data (one per IOP)
"Performance data files: QAPMDISK" on page 32	Disk storage data (one per read/write head)
"Performance data files: QAPMDOMINO" on page 37	Domino <sup>(TM)</sup> for iSeries <sup>(TM)</sup> data (one record per domino server)
» "Performance data files: QAPMDPS" on page 40	Data port services «
"Performance data files: QAPMECL" on page 42	Token-ring file entries (one per link)
"Performance data files: QAPMETH" on page 45	Ethernet statistics (one per link)
"Performance data files: QAPMFRLY" on page 47	Frame relay data (one per link)
"Performance data files: QAPMHDLC" on page 48	HDLC statistics (one per link)
"Performance data files: QAPMHTTPB" on page 50	Basic data for IBM <sup>(R)</sup> HTTP server (powered by Apache) (one per server)
"Performance data files: QAPMHTTPD" on page 50	Detailed data for IBM HTTP server (powered by Apache) (one per server component)
"Performance data files: QAPMIDLC" on page 51	Integrated services digital network data link control file entries (one per link)
"Performance data files: QAPMIOPD" on page 52	Extended IOP data » (network server and virtual I/O data) «
"Performance data files: QAPMJOBMI" on page 56	MI job data (one record per job, task, or thread). You might find information about "Performance data files: Task type extender" on page 71 useful when using this document
"Performance data files: QAPMJOBOS" on page 60	Job operating system data (one record per job)
"Performance data files: QAPMJOBS and QAPMJOBL" on page 64	Job data (one record per job, task, or thread)
"Performance data files: QAPMJOBWT" on page 74	Job, task, and thread wait conditions
"Performance data files: QAPMJOBWTD" on page 75	A description of the counter sets found in file QAPMJOBWT.
"Performance data files: QAPMJSUM" on page 76	Job summary data by job group (one record per job group)
"Performance data files: QAPMLAPD" on page 78	Integrated services digital network LAPD file entries (one per link)
"Performance data files: QAPMLIOP" on page 80	Twinaxial workstation controller data (one per physical controller)
» "Performance data files: QAPMLPAR" on page 82	Logical partition (one record per logical partition) «



<b>File</b>	<b>Description</b>
"Performance data files: QAPMMIOP" on page 83	Multifunction IOP (one per IOP)
"Performance data files: QAPMPOOL and QAPMPOOLL" on page 86	Main storage data (one per system storage pool)
"Performance data files: QAPMPOOLB" on page 88	Storage pool data (one per pool)
"Performance data files: QAPMPOOLT" on page 89	Storage pool tuning data (one per pool)
"Performance data files: QAPMPPP" on page 90	Point-to-Point Protocol data (one per link)
"Performance data files: QAPMRESP" on page 91	Local workstation response time (one per workstation)
"Performance data files: QAPMRWS" on page 91	Remote workstation response time
"Performance data files: QAPMSAP" on page 92	TRLAN, Ethernet, DDI, and Frame Relay SAP file entries (one per SAP entry)
"Performance data files: QAPMSNA" on page 93	SNA data
"Performance data files: QAPMSNADS" on page 102	SNADS data (one per SNADS job)
"Performance data files: QAPMSTND" on page 103	DDI station data
"Performance data files: QAPMSTNE" on page 104	Ethernet station file entries
"Performance data files: QAPMSTNL" on page 105	Token-ring station file entries
"Performance data files: QAPMSTNY" on page 106	Frame relay station file entries
"Performance data files: QAPMSYS and QAPMSYSL" on page 107	System performance data
"Performance data files: QAPMSYSCPU" on page 126	System CPU usage data
"Performance data files: QAPMSYSTEM" on page 127	System-level performance data
"Performance data files: QAPMTCP" on page 132	TCP/IP data
"Performance data files: QAPMTCPIFC" on page 133	TCP/IP data for individual TCP/IP interfaces
"Performance data files: QAPMUSRTNS" on page 134	User-defined transaction data (Each job has one record for each type of transaction)
"Performance data files: QAPMX25" on page 136	X.25 statistics (one per link)

---

## Performance data files: Field data for configuration database files

Configuration data is collected once per session. The following performance data files show the file names, brief descriptions, and references to field data detail (when provided) for the system configuration data, subsystem data, and hardware configuration data. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships.”

Field Name	Description
“Performance data files: QAPMCONF” on page 7	System configuration data.
“Performance data files: QAPMHDWR” on page 11	System hardware configuration.
QAPMSBSD	Subsystem data. No field and byte data.

To find more information about this topic, refer to the “Performance data files,” on page 1 overview.

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## Performance database files: Field data for trace database files

Trace data includes internal system trace data. This is detailed data that you collect to gain additional information about specific jobs and transactions. This type of data should not be collected unless you use the Performance Tools licensed program to analyze it. The following are performance data files that the system supports when using the Start Performance Trace (STRPFRTRC) command.

File Name	Description
QAPMDMPT	System trace data (no field or byte detail).

To find more information about this topic, refer to the “Performance data files,” on page 1 overview.

---

## Performance data files: Collection Services system category and file relationships

When you collect performance data using Collection Services, the data is stored in a management collection (\*MGTCOL) object. The CRTPFRTDA command exports data from that management collection object and then writes the data to the “Performance data files,” on page 1. Each type of data that can be independently controlled and collected by Collection Services is represented by a data category. Each data category contains or provides data that is written to one or more performance data files. For a database file or member to be created, the category (or group of categories) that the file or member is dependent on must exist and be processed by CRTPFRTDA. The table below identifies the category-to-file relationships. There are three types of relationships:



Relationship	Description
Primary files	These files are related to and generated from the category.
Compatibility files	These files are logical files that join primary files to provide performance database compatibility with the previous file structure. If the system generates all participating files (primary categories), compatibility files are also generated.

Relationship	Description
Secondary files	These files are related to and contain some data that is derived from data contained in the category or in the primary file. However, they are not controlled by that category.

Users should note the following:

1. The CRTPFRTDA command generates a database file only when that file is a primary file for the selected category.
2. If a primary file is listed for multiple categories, you must select each of those categories to generate the file.
3. If a primary file for one category is listed as a secondary file for another category, you must select the second category to ensure complete information in your generated database file. For example, as shown in the table below, to generate a complete database file for QAPMECL, you must select both \*CMNBASE and \*CMNSTN.
4. The system generates compatibility files only when it generates all associated primary files.

The table below illustrates the relationships between system categories and performance database files.

Category	Primary files	Compatibility files	Secondary files
*SYSBUS	QAPMBUS		
*POOL	QAPMPOOLB	QAPMPOOLL	
*POOLTUNE	QAPMPOOLT	QAPMPOOLL	
*HDWCFG	QAPMHDWR		
*SUBSYSTEM	QAPMSBSD		
*SYSCPU	QAPMSYSCPU	QAPMSYSL	
*SYSVLV	QAPMSYSTEM	QAPMSYSL	
*JOBMI	QAPMJOBMI QAPMJOBWT QAPMJOBWTD QAPMJSUM	QAPMJOBL QAPMSYSL	QAPMSYSTEM
*JOBOS	QAPMJOBOS QAPMJSUM	QAPMJOBL QAPMSYSL	QAPMSYSTEM
*SNADS	QAPMSNADS		
*DISK	QAPMDISK		QAPMSYSTEM
*IOPBASE	 QAPMIOPD   QAPMLIOP QAPMDIOP QAPMCIOP QAPMMIOP		
*IPCS	QAPMIOPD QAPMTSK		

*CMNBASE	QAPMASYN QAPMBSC QAPMDDI QAPMECL QAPMETH QAPMFRLY QAPMHDLC QAPMIDLC QAPMLAPD QAPMPPP QAPMX25		
*CMNSTN	QAPMSTND QAPMSTNE QAPMSTNL QAPMSTNY none		QAPMDDI QAPMETH QAPMECL QAPMFRLY QAPMX25
*CMNSAP	QAPMSAP		
*LCLRSP	QAPMRESP		
*APPN	QAPMAPPN		
*SNA	QAPMSNA		
*EACACHE	none		QAPMDISK (see note)
*TCPBASE	QAPMTCP		
*TCPIFC	QAPMTCPIFC		
*DOMINO	QAPMDOMINO		
*HTTP	QAPMHTTPB QAPMHTTPD		
*USRTNS	QAPMUSRTNS		
» *DPS	QAPMDPS		
*LPAR	QAPMLPAR «		
<b>Note:</b>			
This category is not selectable by CRTPFRTDA. However, it causes additional data to be reported by the *DISK category.			

## Performance data files: File abbreviations

The "Performance data files," on page 1 use abbreviations in the field and byte data tables. These abbreviations include:

Abbreviation	Description
<b>Primary files</b>	These files are related to and generated from the category.
<b>C</b>	Character in the Attributes column.
» <b>H</b>	Hexadecimal in the Attributes column. «
<b>PD</b>	Packed decimal in the Attributes column.
<b>Z</b>	Zoned decimal in the Attributes column.
<b>IOP</b>	Input/output processor or I/O processor. The processors that control the activity between the host system and other devices, such as disks, display stations, and communication lines.
<b>DCE</b>	Data circuit-terminating equipment.
<b>MAC</b>	Medium-access control. An entity in the communications IOP.

LLC	Logical link control. An entity in the communications IOP.
Beacon frame	A frame that is sent when the ring is inoperable.
Type II frame	A connection-oriented frame (information frame) used by Systems Network Architecture (SNA).
I-frame	An information frame.
▶▶ B	The DDS binary data type of 4 digits, which is 2 bytes, in the Attributes column. ◀◀

## Performance data files: QAPMCONF

This file contains general information about the collection. It includes information about collection options, characteristics of the database files generated and information about the system on which the data was collected. One record is written to this file for each item reported (see the GKEY field). This file is not optional. Data in this file is generated for every database collection. This data is reported only at the beginning of the collection. Although most of the data in this file does not change during the collection, some data could change. Changes are not reported.

To find more information about this topic, refer to the "Performance data files," on page 1 overview.

File name	Description	Attributes
GRES	Reserved.	C (4)
GKEY	Identifier to indicate what data is contained in the GDES field. See descriptions in the table below.	C (2)
GDES	Data for the associated GKEY value. See values in the table below. Unless otherwise noted, all system values pertain to the partition for which the data was collected. Unless otherwise indicated all the data is left justified in this field	C (10)

### GKEY

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

### GDES

Performance monitor or data start date. Data is reported as a C(7) value with the following format: (yymmddc).

Performance monitor or data start time. Time is reported as a C(6) value with the following format: (hhmmss).

4-character model number followed by 4-character system type.

Memory for the partition in KB (zoned (10,0)).

Communications data collected: will be set to Y only if any communication files were created.

Machine serial number (character 10).

First response time boundary (zoned (10,0)) in milliseconds. The first response time monitor bracket is from 0 up to and including the first response time boundary.

Second response time boundary (zoned (10,0)) in milliseconds. The second response time monitor bracket is from the first response time boundary up to and including the second response time boundary.

Third response time boundary (zoned (10,0)) in milliseconds. The third response time monitor bracket is from the second response time boundary up to and including the third response time boundary.

**GKEY**

10

11

12

13

14

15

16

17

AP

AT

CD

CI

CL

CN

**GDES**

Fourth response time boundary (zoned (10,0)) in milliseconds. The fourth response time monitor bracket is from the third response time boundary up to and including the fourth response time boundary. Responses greater than the fourth response time boundary fall under the fifth response time monitor bracket.

System ASP capacity in KB (zoned (10,0)). Total number of bytes of auxiliary storage allocated to the system ASP for the storage of data.

Checksum protection on (Y/N).

Number of logical processors assigned to the partition (PD (3,0)).

First remote response time boundary (zoned (10,0)) in milliseconds. The first response time monitor bracket is from 0 up to and including the first response time boundary. This data only appears when requested with the Start Performance Monitor (STRPFRMON) command.

Second remote response time boundary (zoned (10,0)) in milliseconds. The second response time monitor bracket is from the first response time boundary up to and including the second response time boundary. This data only appears when requested with the STRPFRMON command.

Third remote response time boundary (zoned (10,0)) in milliseconds. The third response time monitor bracket is from the second response time boundary up to and including the third response time boundary. This data only appears when requested with the STRPFRMON command.

Fourth remote response time boundary (zoned (10,0)) in milliseconds. The fourth response time monitor bracket is from the third response time boundary up to and including the fourth response time boundary. Responses greater than the fourth response time boundary fall under the fifth response time monitor bracket. This data only appears when requested with the STRPFRMON command.

Permanent 16-MB addresses that remain for the machine. This address is reported as an unsigned 8-byte binary value.

Temporary 16-MB addresses that remain for the machine. This address is reported as an unsigned 8-byte binary value.

Collection data. This record is provided by Collection Services only. Possible values are:

- 0 - This collection is consistent with files that are created by the traditional performance monitor \*SYS collection.
- 1 - Collection data is not \*SYS. The database files that are generated from the collection may not be sufficient for applications (such as Performance Tools reports or PM iSeries<sup>™</sup>) that depend on traditional performance monitor data.

Collect Internal Data (Y/N).

Collection Library. The name of the library in which the management collection object resides.

Collection Name. The name of the management collection object.

## GKEY

DB

DL

» DM

» DP

DT

ED

ET

F

FC

FI

FP

## GDES

Database consistency. This record is provided by Collection Services only. Possible values are:

- 0 - No problem detected in database files.
- 1 - Due to interval size selected or to inconsistent collection intervals, the database files that are generated may contain missing intervals or other inconsistencies that might cause problems for applications that depend on traditional performance monitor data.

Database limit is a B(4,1) value that is the percent of the total system CPU. For example, 125 means 12.5%.

On demand memory information. The total amount of on demand memory in GB that exists on the machine (4-byte binary) followed by the amount of on demand memory in GB still available to be allocated (4-byte binary).

Memory that is activated by permanent, temporary, or metered capacity upgrades is not considered available. This record appears only on systems with on demand memory. <<

On demand process information. The total number of on demand processors existing on the machine (2-byte binary) followed by the number of on demand processors still available to be allocated (2-byte binary). Processors that are activated by permanent, temporary, or metered capacity upgrades are not considered available. This record appears only on systems with on demand processors. <<

Database threshold is a B(4,1) value that is the percent of the total system CPU. For example, 125 means 12.5%.

End date. The date associated with the last interval in the collection. This date is reported as a left adjusted CHAR(7) field. It appears in the following format: "CYYMMDD".

End time. The time associated with the last interval in the collection. This time is reported as a left adjusted CHAR(6) field. It appears in the following format: "HHMMSS".

**Note:** The following is a description of the contents of the 'End date' and 'End time' fields for both active and non-active collections.

- For a non-active Collection, the date/time will come from the last interval which exists in the management collection object.
- For a \*ACTIVE Collection, the date/time will come from the last interval which was processed by CRTPFRTDA.

File level (PD(2,0)). Specifies the level of the performance database files. The value in this field is 21, and will be changed each time the format of any of the performance database files change.

Processor Feature Code (character 4).

Interactive Feature (character 4). » The Interactive Feature field is blank for servers that have no interactive features. <<

Processor Feature (character 4).

GKEY  
» HM

I

IL

IS

IT

OS

PC

PN

PP

PU

R

S

SJ

## GDES

Hypervisor<sup>(TM)</sup> memory. This is the total amount of memory, in megabytes, used by the hypervisor. This is physical machine memory and is not associated with the partition's memory allocation. The amount of memory is determined by the number of partitions and attributes of each partition. The value is reported as an unsigned 4-byte binary. «

Interval (PD(2,0)). The time interval (in minutes) between each collection of system performance data.

Interactive limit » as a percent of the configured processor units (see GKEY PU). The value is reported in two different formats: a 2-byte binary B(4,1) value followed by a 4-byte binary B(5,2) value. For example, in the second format, a value of 1250 means 12.50%. For the most accurate data, the second value should be used. «

Interval seconds (PD(4,0)). This record is provided by Collection Services only. The time interval (in seconds) between each collection of system performance data.

Interactive threshold » as a percent of the configured processor units (see GKEY PU). The value is reported in two different formats: a 2-byte binary B(4,1) value followed by a 4-byte binary B(5,2) value. For example, in the second format, a value of 1250 means 12.50%. For the most accurate data, the second value should be used. «

Output file system (character 8). This record is provided by Collection Services only. This value represents the system where the database files are generated.

Partition count. » The value is reported in two different formats: a zoned (2,0) value that is capped at 99 followed by an unsigned 4-byte binary value. For the most accurate data, the second value should be used. « This record is provided by Collection Services only.

Partition identifier (character 1). This record is provided by Collection Services only.

Primary partition (character 1). This record is provided by Collection Services only.

Processor units allocated to the partition. The value is reported as a 4-byte binary B(5,2). For example: 175 means 1.75 processor units.

Version number (PD(2,0)), followed by release number (PD(3,1)).

System name (character 8).

The Select Job (SLTJOB) parameter value (character 10). This value may be \*ALL or \*ACTIVE. This parameter applies to the performance monitor. Collection Services does not use the SJ parameter.



**GKEY**  
 >> SP

**GDES**

Shared processor/pool attributes. This record contains partition attributes related to shared processor pools. The first item identifies if the partition uses a shared pool. The rest of the data applies if sharing is in effect:

Byte 1: CHAR(1) - Processor sharing,  
 '0' = Partition does not share physical processors.

'1' = Partition shares physical processors.

Byte 2: CHAR(1) - capped/uncapped  
 '0' = Partition is capped.

'1' = Partition is uncapped.



Value (character 1) of the QPFRADJ system value.

Value (character 1) of the QDYNPTYSCD system value.

Value (character 1) of the QDYNPTYADJ system value.

Trace type (character 5). Specifies the type of internal trace that was started with the Start Performance Monitor command (\*ALL or \*NONE). Collection Services will always report \*NONE.

S1  
 S2  
 S3  
 T

---

## Performance data files: QAPMHDWR

This file is an output file that is produced by the Display Hardware Resources (DSPHDWRSC) command. The format of the output file is the same as that of the physical file model, QARZALLF, and its associated record format model, QRZALL. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

When Collect Services starts, it will issue the DSPHDWRSC command with the following parameters:

```
DSPHDWRSC TYPE(*AHW) OUTPUT(*OUTFILE)
OUTFILE("performance_lib"/QAPMHDWR)
OUTMBR("performance_mbr" *REPLACE)
OUTFILFMT (*type2)
```

---

## Performance data files: QAPMAPPN

This table defines the fields in the Advanced Peer-to-Peer Networking (APPN) data file record. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval	PD (7,0)
ANTGU	Total number of transmission group (TG) updates processed	PD(11,0)
ATTGU	Cumulative time (in milliseconds) to process the TG updates	PD(11,0)
ANTGUM	Number of TG updates that require one or more resources to be added to the topology database update (TDU) buffer	PD(11,0)

Field Name	Description	Attribute
ANRATG	Number of resources added to TDU buffers due to TG update processing	PD(11,0)
ANTSTG	Number of TDUs sent as a result of initially creating a TDU buffer on behalf of TG updates	PD(11,0)
ANNTTG	Number of network nodes that had TDUs sent to them due to TDUs being created for TG update processing	PD(11,0)
ANNCTC	Total number of node congestion transition changes processed	PD(11,0)
ATNCTC	Cumulative elapsed time for processing congestion transition changes	PD(11,0)
ATRSNC	Number of times that topology routing services (TRS) entered into non-congested state	PD (11,0)
ATRSC	Number of times that TRS entered into congested state	PD (11,0)
ATNCS	Cumulative elapsed time (in milliseconds) that the system was in non-congested state	PD(11,0)
ATCS	Cumulative elapsed time (in milliseconds) that the system was in congested state	PD (11,0)
ATSCP	Number of TDUs sent as a result of initially creating a TDU buffer on behalf of node congestion processing	PD (11,0)
ANTSCP	Number of network nodes that had TDUs sent to them due to TDUs being created for node congestion processing	PD (11,0)
ANTDUP	Total number of received TDUs processed by this node	PD (11,0)
ATTDUP	Cumulative elapsed time for processing the received TDUs	PD (11,0)
ANNRTD	Number of new resources received in TDUs that cause resources to be added to the TDU buffer	PD (11,0)
ANORTN	Number of old resources received in TDUs that do not require a resource to be added to the TDU buffer	PD (11,0)
ANORTA	Number of old resources received in TDUs that do require resources to be added to the TDU buffer	PD (11,0)
ANTSRT	Number of TDUs sent as a result of initially creating a TDU buffer on behalf of processing a received TDU	PD (11,0)
ANNTST	Number of network nodes that had TDUs sent to them due to TDUs being created for processing received TDUs	PD (11,0)
ACNTID	Network ID of the node that received the most TDUs within the interval	C (8)
ACCPNM	Control point (CP) name of the node that received the most TDUs within the interval	C (8)
ANTRFN	Number of TDUs received this interval by the node that received the most TDUs in the interval	PD (11,0)
ANITEP	Total number of initial topology exchanges processed by this node	PD (11,0)
ATPIE	Cumulative elapsed time for processing the initial exchange	PD (11,0)
ANTECT	Number of times the initial topology exchange caused the complete network node topology to be sent	PD (11,0)
ANTDE	Total number of entries in the entire topology database (this value is not a delta)	PD (11,0)
ANTERS	Number of resources (nodes and TGs) added to the TDU buffer due to initial topology exchange	PD (11,0)
ANTETS	Number of TDUs sent as a result of initial topology exchange	PD (11,0)
ANGCP	Number of times that obsolete topology entries were removed	PD (11,0)
ATGCP	Cumulative elapsed time for removing the obsolete topology entries	PD (11,0)

Field Name	Description	Attribute
ANTEDG	Number of topology entries that were deleted	PD (11,0)
ANTGC	Number of TDUs that were sent when obsolete topology entries were deleted	PD (11,0)
ANNTGC	Number of network nodes that had TDUs sent to them when obsolete topology entries were removed	PD (11,0)
ANRRP	Total number of registration requests processed	PD (11,0)
ANLRR	Total number of locations processed with the registration requests	PD (11,0)
ATPRR	Cumulative elapsed time to process registration requests	PD (11,0)
ANDRP	Total number of deletion requests processed	PD (11,0)
ANLDDR	Total number of locations deleted with deletion requests	PD (11,0)
ATPDR	Cumulative elapsed time to process deletion requests	PD (11,0)
ANCNAP	Total number of requests to change network attributes processed	PD (11,0)
ATCNA	Cumulative elapsed time to process requests to change network attributes	PD (11,0)
ANDDRC	Number of times the directory database was deleted and re-created due to processing the requests to change network attributes	PD (11,0)
ANLRSC	Number of location registration requests sent due to processing the requests to change network attributes	PD (11,0)
ANLDSC	Number of location deletion requests sent due to processing the requests to change network attributes	PD (11,0)
ANTDRC	Number of times the topology database was deleted and re-created due to processing the requests to change network attributes	PD (11,0)
ANCART	Number of times the requests to change network attributes caused a node entry resource to be added to the TDU buffer	PD (11,0)
ANTSTC	Number of TDUs sent as a result of initially creating a TDU buffer on behalf of requests to change network attributes	PD (11,0)
ANNTSC	Number of network nodes that had TDUs sent to them due to TDUs being created for processing requests to change network attributes	PD (11,0)
ANDAI	Number of times APPN information was displayed (DSPAPPNINF command)	PD (11,0)
ANLLUP	Total number of local location list updates processed	PD (11,0)
ATLLUP	Cumulative elapsed time to process the local location list updates	PD (11,0)
ANLRSL	Number of location registration requests sent due to local location list updates	PD (11,0)
ANLDLL	Number of location deletion requests sent due to local location list updates	PD (11,0)
ANRLUP	Total number of remote location list updates processed	PD (11,0)
ATRLUP	Cumulative elapsed time to process the remote location list updates	PD (11,0)
ANMDUP	Total number of mode description updates processed by APPN	PD (11,0)
ATMDUP	Cumulative elapsed time to process the mode description updates	PD (11,0)
ANCSUP	Total number of class-of-service updates processed by APPN	PD (11,0)
ATCSUT	Cumulative elapsed time to process the class-of-service (COS) update by TRS	PD (11,0)
ATCSUC	Cumulative elapsed time to process the COS update by the CPMGR task	PD (11,0)
ANCSSA	Number of contention CP-CP session setups attempted	PD (11,0)
ANCSSS	Number of contention CP-CP session setups successful	PD (11,0)
ANRRS	Total number of registration requests sent	PD (11,0)
ANLRRR	Total number of locations registered with registration requests	PD (11,0)
ATSRR	Cumulative elapsed time to send registration requests	PD (11,0)

Field Name	Description	Attribute
ANSTC	Number of single-hop route requests made to TRS for contention CP session setup	PD (11,0)
ANSTCS	Number of single-hop route requests made to topology routing services (TRS) for contention CP session setup that were successful	PD (11,0)
ATSTCS	Cumulative elapsed time for processing single-hop route requests on behalf of contention CP session setups	PD (11,0)
ANARMC	Number of activate-route requests made to MSCP for contention CP session setups	PD (11,0)
ANSARM	Number of successful activate-route requests processed by MSCP for contention CP session setups	PD (11,0)
ATARMC	Cumulative elapsed time for activate-route requests on behalf of contention CP session setups	PD (11,0)
ANTDSC	Number of requests made to the T2 SIOM to perform device selection on behalf of contention CP session setups	PD (11,0)
ATTDSC	Cumulative elapsed time for device selection processing to complete on behalf of contention CP session setups	PD (11,0)
ANDSS	Number of device selection requests that were successful on behalf of contention CP session setups	PD (11,0)
ATCCSA	Cumulative elapsed time for processing contention CP session activation requests	PD (11,0)
ANLSAP	Number of contention CP session activations processed	PD (11,0)
ANCST	Number of contention CP-CP session ends	PD (11,0)
ATCST	Cumulative elapsed time for processing contention CP-CP session ends	PD (11,0)
ANLST	Number of contention CP-CP session ends	PD (11,0)
ATLST	Cumulative elapsed time for processing contention CP-CP session ends	PD (11,0)
ANCWSA	Number of winning CP-CP sessions currently active (this is not a delta)	PD (11,0)
ANCLSA	Number of losing CP-CP sessions currently active (this is not a delta)	PD (11,0)
ANCDRR	Number of data-received requests processed (CP capabilities)	PD (11,0)
ANCBDR	Number of bytes of data received (CP capabilities)	PD (11,0)
ATCDRR	Cumulative elapsed time for processing the data-received requests (CP capabilities)	PD (11,0)
ANCSDR	Number of send-data requests processed (CP capabilities)	PD (11,0)
ANCBDS	Number of bytes of data sent through the send-data requests (CP capabilities)	PD (11,0)
ATCSDR	Cumulative elapsed time for processing the send-data requests (CP capabilities)	PD (11,0)
ANTDRR	Number of data-received requests processed (topology database update)	PD (11,0)
ANTBDR	Number of bytes of data received (topology database update)	PD (11,0)
ATTDRR	Cumulative elapsed time for processing the data-received requests (topology database update)	PD (11,0)
ANTSDR	Number of send-data requests processed (topology database update)	PD (11,0)
ANTBDS	Number of bytes of data sent through the send-data requests (topology database update)	PD (11,0)
ATTSDR	Cumulative elapsed time for processing the send-data requests (topology database update)	PD (11,0)
ANDDRR	Number of data-received requests processed (directory search)	PD (11,0)
ANDBDR	Number of bytes of data received (directory search)	PD (11,0)

Field Name	Description	Attribute
ATDDRR	Cumulative elapsed time for processing the data-received requests (directory search)	PD (11,0)
ANDSDR	Number of send-data requests processed (directory search)	PD (11,0)
ANDBDS	Number of bytes of data sent by send-data requests (directory search)	PD (11,0)
ATDSDR	Cumulative elapsed time for processing send-data requests (directory search)	PD (11,0)
ANRDRR	Number of data-received requests processed (registration/deletion)	PD (11,0)
ANRBDR	Number of bytes of data received (registration/deletion)	PD (11,0)
ATRDRR	Cumulative elapsed time for processing data-received requests (registration/deletion)	PD (11,0)
ANRSDR	Number of send-data requests processed (registration/deletion)	PD (11,0)
ANRBDS	Number of bytes of data sent through send-data requests (registration/deletion)	PD (11,0)
ATRSDR	Cumulative elapsed time for processing send-data requests (registration/deletion)	PD (11,0)
Local system initiated sessions		
ANWAP1	Total number of work activities of this type processed	PD (11,0)
ATWAP1	Cumulative elapsed time to complete work activities of this type	PD (11,0)
ATWAS1	Total number of work activities of this type that yielded a successful result	PD (11,0)
ASSA1	Number of session setup attempts satisfied through an existing APPN session	PD (11,0)
AASNA1	Number of APPC session requests satisfied by using non-APPN device descriptions	PD (11,0)
ASPAC1	Number of session setup requests that require APPN control point services for directory, route selection, and device selection processing	PD (11,0)
ASPSP1	Number of session setup requests that are placed in pending due to another session setup being in progress for the same local location, remote location, and mode	PD (11,0)
ASLNS1	Number of searches that the local end node satisfied locally (that is, without sending a search to its network node (NN) server)	PD (11,0)
AS1HS1	Number of one-hop search requests sent by the end node (EN)	PD (11,0)
AIHSS1	Number of searches satisfied by the end node by sending one-hop search requests	PD (11,0)
ASSBN1	Number of searches satisfied by sending a bind directly to an attached network node server (because the end node has no CP-CP session to a server)	PD (11,0)
ASFNS1	Number of searches that failed because of no network services being available for the local end node	PD (11,0)
ATILP1	Cumulative elapsed time required for the locate phase initiated by the end node to complete	PD (11,0)
ANSSL1	Number of searches satisfied locally (using the topology database or the directory services (DS) database and finding an entry for an end node that does not support CP sessions)	PD (11,0)
ANIHS1	Number of one-hop search requests sent by the network node	PD (11,0)
ANSS11	Number of searches satisfied by the network node by sending one-hop search requests	PD (11,0)
ANDSS1	Number of directed searches sent	PD (11,0)
ASSDS1	Number of searches that were satisfied by sending directed searches	PD (11,0)
ATDSR1	Cumulative elapsed time for directed search responses to be received	PD (11,0)

Field Name	Description	Attribute
ANDBE1	Number of domain broadcasts that have been run	PD (11,0)
ANNDB1	Number of nodes that these domain broadcasts have been sent to	PD (11,0)
ATRDB1	Cumulative elapsed time for the first positive response to be returned on domain broadcasts	PD (11,0)
ATLRD1	Cumulative elapsed time for the last response to be returned on domain broadcasts	PD (11,0)
ASSDB1	Number of searches that were satisfied by sending a domain broadcast	PD (11,0)
ANBSE1	Number of broadcast searches that have been run	PD (11,0)
ANNBS1	Number of adjacent nodes that these broadcast searches have been sent to	PD (11,0)
ATRBS1	Cumulative elapsed time for the first positive response to be returned on broadcast searches	PD (11,0)
ATLRB1	Cumulative elapsed time for the last response to be returned on broadcast searches	PD (11,0)
ANSBS1	Number of searches that were satisfied by sending a broadcast search	PD (11,0)
ATSPR1	Cumulative elapsed time from the start of search processing on the local node until a positive response has been returned to the local user	PD (11,0)
ATSPC1	Cumulative elapsed time from the start of search processing until the local directory services task has completed all processing for the request. This measurement takes into account the time required to process domain broadcast or broadcast search responses even though a positive response has already been sent back to the local user	PD (11,0)
AN1HT1	Number of single-hop route requests made to topology routing services (TRS)	PD (11,0)
AS1HT1	Number of single-hop route requests made to TRS that were successful	PD (11,0)
AT1HC1	Cumulative elapsed time for processing single-hop route requests	PD (11,0)
ANRRT1	Number of request-route requests made to TRS	PD (11,0)
ASRRT1	Number of request-route requests made to TRS that were successful	PD (11,0)
ATRRT1	Cumulative elapsed time for processing request-route requests	PD (11,0)
AARRM1	Number of activate-route requests made to machine services control point (MSCP)	PD (11,0)
AARCV1	Number of activate-route requests that require a controller description to be automatically created and/or varied on by the system	PD (11,0)
ATRCV1	Cumulative elapsed time for automatic creation and/or vary on of the controller to be processed	PD (11,0)
ASARR1	Number of successful activate-route requests processed by MSCP	PD (11,0)
ATARP1	Cumulative elapsed time for processing activate-route requests by MSCP	PD (11,0)
ARDS1	Number of requests made to the T2 SIOM to perform device selection	PD (11,0)
ATDS1	Cumulative elapsed time for device selection processing to complete	PD (11,0)
ADSS1	Number of device selection requests that were successful	PD (11,0)
Receiver of search requests as an end node		
ANWAP2	Total number of work activities of this type processed	PD (11,0)
ATWAP2	Cumulative elapsed time to complete work activities of this type	PD (11,0)
ATWAS2	Total number of work activities of this type that yielded a successful result	PD (11,0)
Network node performing search requests on behalf of an end node		
ANWAP3	Total number of work activities of this type processed	PD (11,0)

Field Name	Description	Attribute
ATWAP3	Cumulative elapsed time to complete work activities of this type	PD (11,0)
ATWAS3	Total number of work activities of this type that yielded a successful result	PD (11,0)
ANSSL3	Number of searches satisfied locally (by referring to the topology database or by using the directory services database and finding an entry for an end node that does not support control point sessions)	PD (11,0)
ANIHS3	Number of one-hop search requests sent by the network node	PD (11,0)
ANSS13	Number of searches satisfied by the network node by sending one-hop search requests	PD (11,0)
ANDSS3	Number of directed searches sent	PD (11,0)
ASSDS3	Number of searches that were satisfied by sending directed searches	PD (11,0)
ATDSR3	Cumulative elapsed time for directed search responses to be received	PD (11,0)
ANDBE3	Number of domain broadcasts that have been run	PD (11,0)
ANNDB3	Number of nodes that these domain broadcasts have been sent to	PD (11,0)
ATRDB3	Cumulative elapsed time for the first positive response to be returned on domain broadcasts	PD (11,0)
ATLRD3	Cumulative elapsed time for the last response to be returned on domain broadcasts	PD (11,0)
ASSDB3	Number of searches that were satisfied by sending a domain broadcast	PD (11,0)
ANBSE3	Number of broadcast searches that have been run	PD (11,0)
ANNBS3	Number of adjacent nodes that these broadcast searches have been sent to	PD (11,0)
ATRBS3	Cumulative elapsed time for the first positive response to be returned on broadcast searches	PD (11,0)
ATLRB3	Cumulative elapsed time for the last response to be returned on broadcast searches	PD (11,0)
ANSBS3	Number of searches that were satisfied by sending a broadcast search	PD (11,0)
ATSPR3	Cumulative elapsed time from the start of search processing on the local node until a response has been returned to the local user or remote system that initiated the search process on the local system	PD (11,0)
ATSPC3	Cumulative elapsed time from the start of search processing until the local directory services task has completed all processing for the request. This measurement takes into account the time required to process domain broadcast or broadcast search responses even though a positive response has already been sent back to the local user or remote system that initiated a search	PD (11,0)
ANRRT3	Number of request-route requests made to TRS	PD (11,0)
ASRRT3	Number of request-route requests made to TRS that were successful	PD (11,0)
ATRRT3	Cumulative elapsed time for processing request-route requests	PD (11,0)
Intermediate node on a directed search request		
ANWAP4	Total number of work activities of this type processed	PD (11,0)
ATWAP4	Cumulative elapsed time to complete work activities of this type	PD (11,0)
ATWAS4	Total number of work activities of this type that yielded a successful result	PD (11,0)
Network node that is the destination node of a directed search request		
ANWAP5	Total number of work activities of this type processed	PD (11,0)
ATWAP5	Cumulative elapsed time to complete work activities of this type	PD (11,0)
ATWAS5	Total number of work activities of this type that yielded a successful result	PD (11,0)

Field Name	Description	Attribute
ANSSL5	Number of searches satisfied locally (by referring to the topology database or by using the directory services database and finding an entry for an end node that does not support control point sessions)	PD (11,0)
ANIHS5	Number of one-hop search requests sent by the network node	PD (11,0)
ANSS15	Number of searches satisfied by the network node by sending one-hop search requests	PD (11,0)
ANDBE5	Number of domain broadcasts that have been run	PD (11,0)
ANNDB5	Number of nodes that these domain broadcasts have been sent to	PD (11,0)
ATRDB5	Cumulative elapsed time for the first positive response to be returned on domain broadcasts	PD (11,0)
ATLRD5	Cumulative elapsed time for the last response to be returned on domain broadcasts	PD (11,0)
ASSDB5	Number of searches that were satisfied by sending a domain broadcast	PD (11,0)
Network node processing a received-broadcast-search request		
ANWAP6	Total number of work activities of this type processed	PD (11,0)
ATWAP6	Cumulative elapsed time to complete work activities of this type	PD (11,0)
ATWAS6	Total number of work activities of this type that yielded a successful result	PD (11,0)
ANSSL6	Number of searches satisfied locally (by referring to the topology database or by using the directory services database and finding an entry for an end node that does not support control point sessions)	PD (11,0)
ANIHS6	Number of one-hop search requests sent by the network node	PD (11,0)
ANSS16	Number of searches satisfied by the network node by sending one-hop search requests	PD (11,0)
ANDBE6	Number of domain broadcasts that have been run	PD (11,0)
ANNDB6	Number of nodes that these domain broadcasts have been sent to	PD (11,0)
ATRDB6	Cumulative elapsed time for the first positive response to be returned on domain broadcasts	PD (11,0)
ATLRD6	Cumulative elapsed time for the last response to be returned on domain broadcasts	PD (11,0)
ASSDB6	Number of searches that were satisfied by sending a domain broadcast	PD (11,0)
Network node processing a received-search request from a node in a non-iSeries <sup>(TM)</sup> network		
ANWAP7	Total number of work activities of this type processed	PD (11,0)
ATWAP7	Cumulative elapsed time to complete work activities of this type	PD (11,0)
ATWAS7	Total number of work activities of this type that yielded a successful result	PD (11,0)
ANSSL7	Number of searches satisfied locally (by referring to the topology database or by using the directory services database and finding an entry for an end node that does not support control point sessions)	PD (11,0)
ANIHS7	Number of one-hop search requests sent by the network node	PD (11,0)
ANSS17	Number of searches satisfied by the network node by sending one-hop search requests	PD (11,0)
ANDSS7	Number of directed searches sent	PD (11,0)
ASSDS7	Number of searches that were satisfied by sending directed searches	PD (11,0)
ATDSR7	Cumulative elapsed time for directed search responses to be used	PD (11,0)
ANDBE7	Number of domain broadcasts that have been run	PD (11,0)
ANNDB7	Number of nodes that these domain broadcasts have been sent to	PD (11,0)



Field Name	Description	Attribute
ATRDB7	Cumulative elapsed time for the first positive response to be returned on domain broadcasts	PD (11,0)
ATLRD7	Cumulative elapsed time for the last response to be returned on domain broadcasts	PD (11,0)
ASSDB7	Number of searches that were satisfied by sending a domain broadcast	PD (11,0)
ANBSE7	Number of broadcast searches that have been run	PD (11,0)
ANNBS7	Number of adjacent nodes that these broadcast searches have been sent to	PD (11,0)
ATRBS7	Cumulative elapsed time for the first positive response to be returned on broadcast searches	PD (11,0)
ATLRB7	Cumulative elapsed time for the last response to be returned on broadcast searches	PD (11,0)
ANSBS7	Number of searches that were satisfied by sending a broadcast search	PD (11,0)
ATSPR7	Cumulative elapsed time from the start of search processing on the local node until a response has been returned to the remote system that initiated the search process on the local system	PD (11,0)
ATSPC7	Cumulative elapsed time from the start of search processing until the local directory services task has completed all processing for the request. This measurement takes into account the time required to process domain broadcast or broadcast search responses even though a positive response has already been sent back to the remote system that initiated a search	PD (11,0)
ANRRT7	Number of request-route requests made to topology routing services (TRS)	PD (11,0)
ASRRT7	Number of request-route requests made to topology routing services (TRS) that were successful	PD (11,0)
ATRRT7	Cumulative elapsed time for processing request-route requests	PD (11,0)
Network node processing a received-bind request from a node in the iSeries network without routing information		
ANWAP8	Total number of work activities of this type processed	PD (11,0)
ATWAP8	Cumulative elapsed time to complete work activities of this type	PD (11,0)
ATWAS8	Total number of work activities of this type that yielded a successful result	PD (11,0)
ASPSP8	Number of session setup requests that are placed in pending status due to another session setup being in progress for the same local location, remote location, and mode	PD (11,0)
ANSSL8	Number of searches satisfied locally (by referring to the topology database or by using the directory services database and finding an entry for an end node that does not support control point sessions)	PD (11,0)
ANIHS8	Number of one-hop search requests sent by the network node	PD (11,0)
ANSS18	Number of searches satisfied by the network node by sending one-hop search requests	PD (11,0)
ANDSS8	Number of directed searches sent	PD (11,0)
ASSDS8	Number of searches that were satisfied by sending directed searches	PD (11,0)
ATDSR8	Cumulative elapsed time for directed search responses to be used	PD (11,0)
ANDBE8	Number of domain broadcasts that have been run	PD (11,0)
ANNDB8	Number of nodes that these domain broadcasts have been sent to	PD (11,0)
ATRDB8	Cumulative elapsed time for the first positive response to be returned on domain broadcasts	PD (11,0)
ATLRD8	Cumulative elapsed time for the last response to be returned on domain broadcasts	PD (11,0)

Field Name	Description	Attribute
ASSDB8	Number of searches that were satisfied by sending a domain broadcast	PD (11,0)
ANBSE8	Number of broadcast searches that have been run	PD (11,0)
ANNBS8	Number of adjacent nodes that these broadcast searches have been sent to	PD (11,0)
ATRBS8	Cumulative elapsed time for the first positive response to be returned on broadcast searches	PD (11,0)
ATLRB8	Cumulative elapsed time for the last response to be returned on broadcast searches	PD (11,0)
ANSBS8	Number of searches that were satisfied by sending a broadcast search	PD (11,0)
ATSPR8	Cumulative elapsed time from the start of search processing on the local node until a response has been returned to the local system to allow the bind processing to continue	PD (11,0)
ATSPC8	Cumulative elapsed time from the start of search processing until the local directory services task has completed all processing for the request. This measurement takes into account the time required to process domain broadcast or broadcast search responses even though a positive response has already been sent back to the local system to allow the bind processing to continue	PD (11,0)
ANRRT8	Number of request-route requests made to topology routing services (TRS)	PD (11,0)
ASRRT8	Number of request-route requests made to TRS that were successful	PD (11,0)
ATRRT8	Cumulative elapsed time for processing request-route requests	PD (11,0)
AARRM8	Number of activate-route requests made to machine services control point (MSCP)	PD (11,0)
AARCV8	Number of activate-route requests that require a controller description to be automatically created and/or varied on by the system	PD (11,0)
ATRCV8	Cumulative elapsed time for automatic creation and/or vary on of the controller to be processed	PD (11,0)
ASARR8	Number of successful activate-route requests processed by MSCP	PD (11,0)
ATARP8	Cumulative elapsed time for processing activate-route requests by MSCP	PD (11,0)
Network node processing a received-bind request from a node in a non-iSeries network without routing information		
ANWAP9	Total number of work activities of this type processed	PD (11,0)
ATWAP9	Cumulative elapsed time to complete work activities of this type	PD (11,0)
ATWAS9	Total number of work activities of this type that yielded a successful result	PD (11,0)
ASPSP9	Number of session setup requests that are placed in pending status due to another session setup being in progress for the same local location, remote location, and mode	PD (11,0)
ANSSL9	Number of searches satisfied locally (by referring to the topology database or by using the directory services database and finding an entry for an end node that does not support control point sessions)	PD (11,0)
ANIHS9	Number of one-hop search requests sent by the network node	PD (11,0)
ANSS19	Number of searches satisfied by the network node by sending one-hop search requests	PD (11,0)
ANDSS9	Number of directed searches sent	PD (11,0)
ASSDS9	Number of searches that were satisfied by sending directed searches	PD (11,0)
ATDSR9	Cumulative elapsed time for directed search responses to be received	PD (11,0)
ANDBE9	Number of domain broadcasts that have been run	PD (11,0)
ANNDB9	Number of nodes that these domain broadcasts have been sent to	PD (11,0)

Field Name	Description	Attribute
ATRDB9	Cumulative elapsed time for the first positive response to be returned on domain broadcasts	PD (11,0)
ATLRD9	Cumulative elapsed time for the last response to be returned on domain broadcasts	PD (11,0)
ASSDB9	Number of searches that were satisfied by sending a domain broadcast	PD (11,0)
ANBSE9	Number of broadcast searches that have been run	PD (11,0)
ANNBS9	Number of adjacent nodes that these broadcast searches have been sent to	PD (11,0)
ATRBS9	Cumulative elapsed time for the first positive response to be returned on broadcast searches	PD (11,0)
ATLRB9	Cumulative elapsed time for the last response to be returned on broadcast searches	PD (11,0)
ANSBS9	Number of searches that were satisfied by sending a broadcast search	PD (11,0)
ATSPR9	Cumulative elapsed time from the start of search processing on the local node until a response has been returned to the local system to allow bind processing to continue	PD (11,0)
ATSPC9	Cumulative elapsed time from the start of search processing until the local directory services task has completed all processing for the request. This measurement takes into account the time required to process domain broadcast or broadcast search responses even though a positive response has already been sent back to the local system to allow bind processing to continue	PD (11,0)
ANRRT9	Number of request-route requests made to topology routing services (TRS)	PD (11,0)
ASRRT9	Number of request-route requests made to TRS that were successful	PD (11,0)
ATRRT9	Cumulative elapsed time for processing request-route requests	PD (11,0)
AARRM9	Number of activate-route requests made to machine services control point (MSCP)	PD (11,0)
AARCV9	Number of activate-route requests that require a controller description to be automatically created and/or varied on by the system	PD (11,0)
ATRCV9	Cumulative elapsed time for automatic creation and/or vary on of the controller to be processed	PD (11,0)
ASARR9	Number of successful activate-route requests processed by MSCP	PD (11,0)
ATARP9	Cumulative elapsed time for processing activate-route requests by MSCP	PD (11,0)
Network node processing a received-bind request from a node in the iSeries network with routing information		
ANWAPA	Total number of work activities of this type processed	PD (11,0)
ATWAPA	Cumulative elapsed time to complete work activities of this type	PD (11,0)
ATWASA	Total number of work activities of this type that yielded a successful result	PD (11,0)
ASPSPA	Number of session setup requests that are placed in pending status due to another session setup being in progress for the same local location, remote location, and mode triplet	PD (11,0)
AARRMA	Number of activate-route requests made to machine services control point (MSCP)	PD (11,0)
AARCVA	Number of activate-route requests that require a controller description to be automatically created and/or varied on by the system	PD (11,0)
ATRCVA	Cumulative elapsed time for automatic creation and/or vary on of the controller to be processed	PD (11,0)
ASARRA	Number of successful activate-route requests processed by MSCP	PD (11,0)
ATARPA	Cumulative elapsed time for processing activate-route requests by MSCP	PD (11,0)

Field Name	Description	Attribute
Network node processing a received-bind request from a node in a non-iSeries network with routing information		
ANWAPB	Total number of work activities of this type processed	PD (11,0)
ATWAPB	Cumulative elapsed time to complete work activities of this type	PD (11,0)
ATWASB	Total number of work activities of this type that yielded a successful result	PD (11,0)
ASPSPB	Number of session setup requests that are placed in pending status due to another session setup being in progress for the same local location, remote location, and mode triplet	PD (11,0)
AARRMB	Number of activate-route requests made to machine services control point (MSCP)	PD (11,0)
AARCVB	Number of activate-route requests that require a controller description to be automatically created and/or varied on by the system	PD (11,0)
ATRCVB	Cumulative elapsed time for automatic creation and/or vary on of the controller to be processed	PD (11,0)
ASARRB	Number of successful activate-route requests processed by MSCP	PD (11,0)
ATARPB	Cumulative elapsed time for processing activate-route requests by MSCP	PD (11,0)

## Performance data files: QAPMASYN

This data includes asynchronous file entries and lists the fields in the asynchronous file. For information about how Collection Services generates this file and where the data comes from, refer to "Performance data files: Collection Services system category and file relationships" on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name.	C (10)
AIOPID	Reserved	C (1)
ASTYPE	The resource type of the IOP or adapter represented by this record.	C (4)
ASLND	Line description: The name of the description for this line.	C (10)
ASLSP	Line speed: The speed of this line in bits per second (bps.)	PD (11,0)
ASBTRN	Number of bytes transmitted (data and control characters) including bytes transmitted again because of errors.	PD (11,0)
ASBRCV	Number of bytes received (data and control characters), including characters received in error.	PD (11,0)
ASPRCL	Protocol type: A for asynchronous.	C (1)
ASPDUR	The total number of protocol data units received.	PD (11,0)
ASPDUE	The total number of protocol data units received with parity and stop bit errors.	PD (11,0)
ASPDUT	The total number of protocol data units successfully transmitted and the data-circuit ending equipment (DCE) acknowledged.	PD (11,0)

## Performance data files: QAPMBSC

This data includes binary synchronous file entries and lists the fields in the binary synchronous file. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name.	C(10)
BIOPID	Reserved	C (1)
BSTYPE	The resource type of the IOP or adapter represented by this record.	C (4)
BSLND	Line description: The name of the description for this line.	C (10)
BSLSP	Line speed: The speed of the line in bits per second (bps).	PD (11,0)
BSBTRN	Bytes transmitted: The number of bytes (data and control characters) transmitted, including bytes transmitted again.	PD (11,0)
BSBRCV	Bytes received: The number of bytes (data and control characters) received including bytes received in error.	PD (11,0)
BSPRCL	Protocol type: B for binary synchronous.	C (1)
BSDCRV	Data characters received: The number of data characters received successfully (excluding synchronous characters) while in data mode. For feature types 2507 and 6150, this value is equal to field BSBRCV.	PD (11,0)
BSDCRE	Data characters received in error: The number of data characters received with a block-check character error while in data mode. For feature types 2507 and 6150, this value is equal to field BSCRER.	PD (11,0)
BSDCTR	Data characters transmitted: The number of data characters transmitted successfully while in data mode. For feature types 2507 and 6150, this value is equal to field BSBTRN.	PD (11,0)
BSCRER	Characters received in error: The number of characters received with a block-check character error.	PD (11,0)
BSLNK	Negative acknowledgment character received to text sent (see note). The number of times the remote station or device did not understand the command sent from the host system.	PD (11,0)
BSLWA	Wrong acknowledgment character to text sent (see note). The host system received an acknowledgment from the remote device that was not expected. For example, the system expected an ACK0 and received an ACK1.	PD (11,0)
BSLQTS	Enqueue to text sent (see note): Text was sent by a station and an ENQ character was returned. The receiving station expected some form of acknowledgment, such as an ACK0, ACK1, or NAK.	PD (11,0)
BSLINV	Invalid (unrecognized format): One of the delimiter characters that encloses the data in brackets being sent/received is not valid (see note).	PD (11,0)
BSLQAK	Enqueue to acknowledged character: The remote station returned an acknowledgment (for example, ACK0) and the host system sent an ENQ character. This indicates that the host station did not recognize the acknowledgment as a valid acknowledgment (see note).	PD (11,0)
BSLTNK	Negative acknowledgment character received to text sent (total): The number of times the remote station did not understand the command sent from the host system (see note).	PD (11,0)

Field Name	Description	Attribute
BSLTWA	Wrong acknowledgment character to text sent (total): The host system received an acknowledgment from the remote device that was not expected. For example, the host system expected an ACK0 and received an ACK1 (see note).	PD (11,0)
BSLTQT	Enqueue to text sent (total): Text was sent by a station and an ENQ character was returned. The receiving station expected some form of acknowledgment such as an ACK0, ACK1, or NAK (see note).	PD (11,0)
BSLTIV	Invalid (unrecognized format) (total): One of the delimiter characters that enclose the data in brackets being sent/received is not valid (see note).	PD (11,0)
BSLTQA	Enqueue to acknowledged character (total): The remote station returned an acknowledgment (for example, ACK0) and the host station sent an ENQ character. This indicates that the host station did not recognize the acknowledgment as a valid acknowledgment (see note).	PD (11,0)
BSLDRA	Disconnect received: The remote station issued a disconnect with abnormal end. This could occur when error recovery did not succeed or the binary synchronous job was ended.	PD (11,0)
BSLEAB	End of transmission (EOT) received (abnormal end): Similar to a disconnect.	PD (11,0)
BSLDFA	Disconnect received (forward abnormal end): The host station issued a disconnect with abnormal end. This could occur when the error recovery did not succeed, or the binary synchronous job was ended.	PD (11,0)
BSLEFA	EOT received (forward abnormal end): Similar to a disconnect.	PD (11,0)
BSLDBT	Number of data blocks transmitted.	PD (11,0)
BSLDBR	Number of data blocks received.	PD (11,0)
BSLBKR	Number of data blocks transmitted again.	PD (11,0)
BSLBKE	Number of data blocks received in error.	PD (11,0)
BSLTRT	Total number of characters transmitted again, including control characters.	PD (11,0)
BSLDRT	Total number of data characters transmitted again.	PD (11,0)

**Note:**

1. The counters BSLNK through BSLQAK are error recovery counters and are increased the first time the error is detected. The counters BSLTNK and BSLTQA are error recovery counters and are increased every time the error occurs. The same errors are being counted in each set of counters, so the first set indicates how many times an error was detected and the second set indicates how many retries it took to recover from the errors.

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## Performance data files: QAPMBUS

This data includes Licensed Internal Code bus counters and lists the fields in the bus counters file. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
BUIOPB	System bus number. Bus numbering begins with one. Prior to V4R5, bus numbering began at zero.	PD (3,0)

Field Name	Description	Attribute
BUOPSR	Number of OPSTARTs received: RRCB in server storage.	PD (11,0)
BUSGLR	Signals received.	PD (11,0)
BUOPSS	Number of OPSTARTs sent.	PD (11,0)
BUSGLS	Signals sent.	PD (11,0)
BURSTQ	Restart queues sent.	PD (11,0)
BUBNAR	Occurrences of BNA received.	PD (11,0)
BUTPKT	Total packets (sent or received).	PD (11,0)
BUKBYO	Reserved	PD (11,0)
BUKBYI	Reserved	PD (11,0)
BUNOSR	Normal flow OPSTARTs received	PD (11,0)
BUNRDR	A Not ready state received	PD (11,0)
BUORQS	OPSTART requests sent	PD (11,0)
BUTIMO	Bus time outs	PD (11,0)
BUBNAS	BNAs sent	PD (11,0)
BUQSAS	Queue space available sent	PD (11,0)
BUTYPE	Bus type. Supported values include S (SPD Bus) and P (PCI bus).	C (1)

## Performance data files: QAPMCIOP

This data includes communications IOP file entries and lists the fields in the communications IOP file. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name	C (10)
CIOP	Reserved	C (1)
CITYPE	The type of IOP described by this record.	C (4)
CTIPKT	Total packets transferred.	PD (11,0)
CIKBYO	Total KB transmitted from an IOP to the system across the bus.	PD (11,0)
CIKBYI	Total KB transmitted to the IOP from the system across the bus.	PD (11,0)
CIOPSR	OPSTART bus unit message received from another bus unit using normal flow.	PD (11,0)
CIOPSS	OPSTART bus unit message received from another bus unit using reverse flow method 2 (always 0).	PD (11,0)
CISGLR	Signals received.	PD (11,0)
CIOPST	OPSTARTs sent.	PD (11,0)
CISLGS	Signals sent.	PD (11,0)
CIRSTQ	Restart queues sent.	PD (11,0)

Field Name	Description	Attribute
CIRQDO	DMA requests sent for output of data: The number of requests the IOP sends to the system for data to be sent from the IOP to the system across the bus.	PD (11,0)
CIRQDI	DMA requests sent for input of data: The number of requests the IOP sends to the system for data to be sent to the IOP from the system across the bus.	PD (11,0)
CIBNAR	Occurrences of BNA received.	PD (11,0)
CIPRCU	Processor utilization: The number of fixed-time intervals that this communications IOP spent in the idle state.	PD (11,0)
CIIDLC	Idle loop count (see notes): The number of times the communications IOP ran an idle loop. This is done when the IOP has no work to perform. This count is used with the idle loop time to calculate the primary IOP processor utilization in seconds.	PD (11,0)
CIIDLT	Idle loop time (see notes): The time (in hundredths of microseconds) for the primary IOP processor to run the idle loop once.	PD (11,0)
CIRAMU	Available local storage (in bytes): The number of bytes of free local storage in the IOP. The free local storage will probably be non-contiguous because of fragmentation.	PD (11,0)
CISYSF	The total time (in milliseconds) used by the IOP for basic system function that is running in the primary IOP processor.	PD (11,0)
CICOMM	Combined processing time (in milliseconds) accounted for by all of the communication protocol tasks that are running in the primary IOP processor.	PD (11,0)
CISDLC	Processing time (in milliseconds) used by SDLC communications tasks that are running in the primary IOP processor.	PD (11,0)
CIASYN	Processing time (in milliseconds) used by asynchronous communications tasks that are running in the primary IOP processor.	PD (11,0)
CIBSC	Processing time (in milliseconds) used for bisynchronous protocol tasks that are running in the primary IOP processor.	PD (11,0)
CIX25L	Processing time (in milliseconds) used by X.25 LLC tasks that are running in the primary IOP processor.	PD (11,0)
CIX25P	Processing time (in milliseconds) used by X.25 PLC tasks that are running in the primary IOP processor.	PD (11,0)
CIX25D	Time (in milliseconds) accounted for by X.25 DLC tasks that are running in the primary IOP processor.	PD (11,0)
CILAN	LAN communications time: Total processing unit time (in milliseconds) used by token-ring network, Ethernet, frame relay, and fiber distributed data interface (FDDI) communications tasks that are running in the primary IOP processor.	PD (11,0)
CILAP	Processing time (in milliseconds) used by ISDN LAPD, LAPE, and PMI tasks that are running in the primary IOP processor.	PD (11,0)
CIQ931	Processing time (in milliseconds) used by ISDN Q.931 tasks that are running in the primary IOP processor.	PD (11,0)
CIF1ID	Subfunction 1 ID: The identifier for addition functions that may be running in the primary IOP processor.	C (2)
CIF1TM	Subfunction 1 time: The total processing unit time (in milliseconds) used by the IOP function that is running in the primary IOP processor.	PD (11,0)
CICPU2	Processor time in milliseconds for the second IO processor, which handles specialized functions. This field applies to Integrated xSeries <sup>(R)</sup> Servers (excluding I/O adapter versions) and wireless IOPs. This field is zero for other IOPs. Collection Services will not report values for Integrated xSeries Servers.	PD (11,0)



**Notes:**

The idle loop count and time are used to calculate the communications IOP utilization as follows:

1. Convert the product of the idle loop count times the idle loop time from hundredths of microseconds to seconds. Subtract this from the interval time, and divide the results by the interval time. For example:

$$\text{IOP Utilization} = (\text{INTSEC} - (\text{CIIDLC} * \text{CIIDL T}) / 10^{**}8) / \text{INTSEC}$$

2. The performance monitor reports I/O processor (IOP) statistics different beginning with Version 3 Release 7. Therefore, performance statistics for IOPs introduced in Version 3 Release 7 or later releases are reported in the QAPMMIOP file. Performance statistics are reported in the QAPMMIOP file even if the IOP supports only one of the three IOP functions (communications, disk, or local workstation). Performance statistics for IOPs that were introduced before Version 3 Release 7 will continue to be reported in the appropriate IOP file (QAPMCIOP, QAPMDIOP, QAPMLIOP, and QAPMMIOP).
3. The function 1 identifier is for additional functions that may be running in the primary IOP. Each function identifier has an associated function time value. The function identifier may have the following value:

Value	Description
00	No time value supplied
11	Integrated xSeries Server pipe task (Integrated xSeries Server was previously known as file server I/O processor and FSIOP)
42	Localtalk task
43	Wireless task

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## Performance data files: QAPMDDI

This table defines the fields in a distributed data interface (DDI) file record. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds.	PD (7,0)
IOPRN	IOP resource name.	C(10)
DDIOPI	Reserved	C (1)
DITYPE	The resource type of the IOP or adapter represented by this record.	C (4)
DDLND	Line description: The name of the description for this line.	C (10)
DDLSP	Line speed: The line speed expressed in bits per second (bps).	PD (11,0)
DLTFT	Total number of Type II frames transmitted.	PD (11,0)
DLTFR	Total number of Type II frames received.	PD (11,0)
DLIFT	Total number of I-frames transmitted.	PD (11,0)
DLIFR	Total number of I-frames received.	PD (11,0)
DLICT	Total number of I-frame character transmitted.	PD (11,0)
DLICR	Total number of I-frame characters received.	PD (11,0)

Field Name	Description	Attribute
DLPRCL	Protocol type: C for DDI	C (1)
DLRFT	Total number of receive-not-ready frames transmitted.	PD (11,0)
DLRFR	Total number of receive-not-ready frames received.	PD (11,0)
DLFFT	Total number of frame-reject (FRMR) frames transmitted.	PD (11,0)
DLFFR	Total number of frame-reject (FRMR) frames received.	PD (11,0)
DLRJFR	Number of reject frames received.	PD (11,0)
DLRJFT	Number of reject frames transmitted.	PD (11,0)
DLSFT	Number of set asynchronous balanced mode extended frames transmitted.	PD (11,0)
DLSFR	Number of set asynchronous balanced mode extended frames received.	PD (11,0)
DLDFR	Number of disconnect (DISC) frames transmitted.	PD (11,0)
DLDFR	Number of disconnect (DISC) frames received.	PD (11,0)
DLDMT	Number of disconnect mode (DM) frames transmitted.	PD (11,0)
DLDMR	Number of disconnect mode (DM) frames received.	PD (11,0)
DLN2R	N2 retries end count: This count is updated when the host has attempted to contact a station n times, and the T1 timer ended n times before the station responded.	PD (11,0)
DLT1T	T1 timer end count: Number of times the T1 ended. This count is updated when the host has attempted to contact a station n times, and the T1 timer ended n times before the station responded.	PD (11,0)
DMFRV	Number of MAC frames received.	PD (11,0)
DMFCC	Number of MAC frames copied.	PD (11,0)
DMFTR	Number of MAC frames transmitted.	PD (11,0)
DMTKN	Number of MAC tokens received.	PD (11,0)
DMERR	MAC error count.	PD (11,0)
DMLFC	Lost frame count.	PD (11,0)
DMTVX	TVX expiration count.	PD (11,0)
DMNCC	Not copied count.	PD (11,0)
DMLAT	MAC late count.	PD (11,0)
DLROP	Ring operation count.	PD (11,0)
DMABE	PortA elasticity buffer (EB) errors.	PD (11,0)
DMATF	PortA LCT count: count of consecutive times the confidence test (LCT) has failed.	PD (11,0)
DMALR	PortA reject count.	PD (11,0)
DMAEC	PortA link error monitor (LEM) count.	PD (11,0)
DMBBE	PortB elasticity buffer (EB) errors.	PD (11,0)
DMBTF	PortB LCT count: count of consecutive times the confidence test (LCT) has failed.	PD (11,0)
DMBLR	PortB reject count.	PD (11,0)
DMBEC	PortB link error monitor (LEM) count.	PD (11,0)
DMANR	Address not recognized.	PD (11,0)
DMFNC	Frame not copied.	PD (11,0)
DMTKE	Reserved	PD (11,0)

Field Name	Description	Attribute
DMDUP	Duplicate address count.	PD (11,0)
DMDFR	Discarded frame count.	PD (11,0)
DMTXU	Transmit underruns.	PD (11,0)
DMRER	Recoverable errors.	PD (11,0)
DMNER	Nonrecoverable errors.	PD (11,0)
DMSIN	Spurious interruptions.	PD (11,0)

## Performance data files: QAPMDIOP

This data file contains storage device (Disk) IOP file entries. It lists the fields in the storage device IOP file. Consider the following information in these fields:

- Device means disk.
- The idle loop count and time are used to calculate the storage device controller IOP utilization as follows:

Convert the product of the idle loop count times the idle loop time from hundredths of microseconds to seconds. Subtract this from the interval time, and divide the result by the interval time. For example:

$$\text{IOP Utilization} = (\text{INTSEC} - (\text{DIIDLC} * \text{DIIDLT})/10^{**}8)/\text{INTSEC}$$

See “Performance data files: Collection Services system category and file relationships” on page 4 for more information about the sources of this data.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name.	C (10)
DIIOF	Reserved	C (1)
DITYPE	IOP type.	C (4)
DIIDLC	Idle loop count: The number of times the disk controller IOP ran an idle loop. This is done when the IOP has no work to perform. This count is used with the idle loop time.	PD (11,0)
DIIDLT	Idle loop time: The time (in hundredths of microseconds) to run the idle loop once.	PD (11,0)
DITPK	Total packets transferred.	PD (11,0)
DIKBYO	Total KB transmitted from the IOP to the system across the bus.	PD (11,0)
DIKBYI	Total KB transmitted to the IOP from the system across the bus.	PD (11,0)
DIOPSR	OPSTART bus unit message received from another bus unit using normal flow.	PD (11,0)
DIOPSS	OPSTART bus unit message received from another bus unit using reverse flow method 2 (always 0).	PD (11,0)
DISGLR	Signals received.	PD (11,0)
DIOPST	OPSTARTs sent.	PD (11,0)

Field Name	Description	Attribute
DISGLS	Signals sent.	PD (11,0)
DIRSTQ	Restart queues sent.	PD (11,0)
DIRQDO	DMA requests sent for output of data: The number of requests the IOP sends to the system for data to be sent from the IOP to the system across the bus.	PD (11,0)
DIRQDI	DMA requests sent for input of data: The number of requests the IOP sends to the system for data to be sent to the IOP from the system across the bus.	PD (11,0)
DIBNAR	Occurrences of BNA received.	PD (11,0)
DIRID0	Reserved	C (8)
DISMP0	Reserved	PD (11,0)
DIQLN0	Reserved	PD (11,0)
DINRQ0	Reserved	PD (11,0)
DIRID1	Reserved	C (8)
DISMP1	Reserved	PD (11,0)
DIQLN1	Reserved	PD (11,0)
DINRQ1	Reserved	PD (11,0)
DIRID2	Reserved	C (8)
DISMP2	Reserved	PD (11,0)
DIQLN2	Reserved	PD (11,0)
DINRQ2	Reserved	PD (11,0)
DIRID3	Reserved	C (8)
DISMP3	Reserved	PD (11,0)
DIQLN3	Reserved	PD (11,0)
DINRQ3	Reserved	PD (11,0)
DIRID4	Reserved	C (8)
DISMP4	Reserved	PD (11,0)
DIQLN4	Reserved	PD (11,0)
DINRQ4	Reserved	PD (11,0)
DIRID5	Reserved	C (8)
DISMP5	Reserved	PD (11,0)
DIQLN5	Reserved	PD (11,0)
DINRQ5	Reserved	PD (11,0)
DIRID6	Reserved	C (8)
DISMP6	Reserved	PD (11,0)
DIQLN6	Reserved	PD (11,0)
DINRQ6	Reserved	PD (11,0)
DIRID7	Reserved	C (8)
DISMP7	Reserved	PD (11,0)
DIQLN7	Reserved	PD (11,0)
DINRQ7	Reserved	PD (11,0)
DIRID8	Reserved	C (8)
DISMP8	Reserved	PD (11,0)

Field Name	Description	Attribute
DIQLN8	Reserved	PD (11,0)
DINRQ8	Reserved	PD (11,0)
DIRID9	Reserved	C (8)
DISMP9	Reserved	PD (11,0)
DIQLN9	Reserved	PD (11,0)
DINRQ9	Reserved	PD (11,0)
DIRIDA	Reserved	C (8)
DISMPA	Reserved	PD (11,0)
DIQLNA	Reserved	PD (11,0)
DINRQA	Reserved	PD (11,0)
DIRIDB	Reserved	C (8)
DISMPB	Reserved	PD (11,0)
DIQLNB	Reserved	PD (11,0)
DINRQB	Reserved	PD (11,0)
DIRIDC	Reserved	C (8)
DISMPC	Reserved	PD (11,0)
DIQLNC	Reserved	PD (11,0)
DINRQC	Reserved	PD (11,0)
DIRIDD	Reserved	C (8)
DISMPD	Reserved	PD (11,0)
DIQLND	Reserved	PD (11,0)
DINRQD	Reserved	PD (11,0)
DIRIDE	Reserved	C (8)
DISMPE	Reserved	PD (11,0)
DIQLNE	Reserved	PD (11,0)
DINRQE	Reserved	PD (11,0)
DIRIDF	Reserved	C (8)
DISMPF	Reserved	PD (11,0)
DIQLNF	Reserved	PD (11,0)
DINRQF	Reserved	PD (11,0)



**Note:**

The performance monitor reports I/O processor (IOP) statistics different beginning with Version 3 Release 7. Therefore, performance statistics for IOPs introduced in Version 3 Release 7 or later releases are reported in the QAPMMIOP file. Performance statistics are reported in the QAPMMIOP file even if the IOP supports only one of the three IOP functions (communications, disk, or local workstation). Performance statistics for IOPs that were introduced before Version 3 Release 7 will continue to be reported in the appropriate IOP file (QAPMCIOP, QAPMDIOP, QAPMLIOP, and QAPMMIOP).

## Performance data files: QAPMDISK

This data includes disk file entries and contains one record for each » disk resource. Typically, there is one disk resource per disk unit except for a multipath disk unit that has multiple disk resources associated with it. « For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.


Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name	C (10)
DIOPID	Reserved	C (1)
DSARM	Disk arm number: Specifies the unique identifier of the unit. Each actuator arm on the disk drives available to the machine represents a unit of auxiliary storage. The value of the unit number is assigned by the system when the unit is allocated to an ASP.	C (4)
DSTYPE	Disk drive type such as 9332, 9335, or 6100.	C (4)
DSDRN	Device resource name. » Typically, there is one disk (device) resource per disk unit except for a multipath disk unit that has multiple disk resources associated with it (see Note 5). «	C (10)
DSSCAN	Number of search string commands: This count is always zero, because search string commands are not supported for the 9332, 9335, or 6100.	PD (5,0)
DSBLKR	Number of blocks read: The block length is 520 bytes, which includes 8 bytes of system control information.	PD (11,0)
DSBLKW	Number of blocks written: The block length is 520 bytes, which includes 8 bytes of system control information.	PD (11,0)
DSIDLC	Processor idle loop counter (see Note 1): The number of times the disk controller passed through the idle loop. This count is increased differently for the 9332 and the 9335. For the 9332, this counter is increased only if the disk controller is totally idle (for example, no I/O operations are active.) For the 9335, even though the disk controller may be idle and the counter gets increased, an I/O operation can be active (for example, seek is being performed.) This field is non-zero for drive types that support a dedicated disk processor and zero for other drive types.  DSIDLC and DSIDLT are duplicated across all arms for the same disk controller.	PD (11,0)
DSIDLT	Processor idle loop time (see Note 3): The time (in hundredths of microseconds) to make one pass through the idle loop. This field is non-zero for drive types that support a dedicated disk processor and zero for other drive types. The value reported could be a multiple of the actual idle loop time. In that case, the value reported for the processor idle loop count field (DSIDLC) is reduced accordingly so that the calculated processor utilization is correct.  DSIDLC and DSIDLT are duplicated across all arms for the same disk controller.	PD (11,0)
DSSK1	Number of seeks > 2/3: The number of times the arm traveled more than 2/3 of the disk on a seek.	PD (11,0)

Field Name	Description	Attribute
DSSK2	Number of seeks > 1/3 and < 2/3 (see Note 2): The number of times the arm traveled more than 1/3 but less than 2/3 of the disk on a seek.	PD (11,0)
DSSK3	Number of seeks > 1/6 and < 1/3 (see Note 2): The number of times the arm traveled more than 1/6 but less than 1/3 of the disk on a seek.	PD (11,0)
DSSK4	Number of seeks > 1/12 and < 1/6 (see Note 2): The number of times the arm traveled more than 1/12 but less than 1/6 of the disk on a seek.	PD (11,0)
DSSK5	Number of seeks < 1/12 (see Note 2): The number of times the arm traveled from its current position but less than 1/12 of the disk on a seek.	PD (11,0)
DSSK6	Number of zero seeks (see Note 2): The number of times the access arm did not physically move on a seek request. The operation may have resulted in a head switch. This field is 0 for disk drive type 6100. The number of zero seeks will be accumulated in DSSK5.	PD (11,0)
DSQUEL	Total queue elements: The number of I/O operations waiting service at sample time. This number includes the I/O operation that is in progress. Divide this by DSSMPL to get the average queue length.	PD (11,0)
DSNBSY	Number of times arm not busy: The number of times there were no outstanding I/O operations active at sample time.	PD (11,0)
DSSMPL	Number of samples taken at two per second: The number of samples taken at approximately two per second for the DSQUEL and DSNBSY fields.	PD (11,0)
DSCAP	Drive capacity (in bytes): Total number of bytes of auxiliary storage provided on the unit for the storage of objects and internal machine functions when the ASP containing it is not under checksum protection. The unit reserved system space value is subtracted from the unit capacity to calculate this capacity.	PD (15,0)
DSAVL	Drive available space (in bytes): Total number of bytes of auxiliary storage space that is not currently assigned to objects or internal machine functions, and therefore is available on the unit.	PD (15,0)
DSASP	ASP number: Specifies the ASP to which this unit is currently allocated. A value of 1 specifies the system ASP. A value from 2 through 32 specifies a basic ASP. A value from 33 to 255 specifies an independent ASP. A value of 0 indicates that this unit is currently not allocated.	PD (5,0)
DSCSS	Reserved	C (2)
DSPCAP	Reserved	PD (11,0)
DSPAVAL	Reserved	PD (11,0)
DMFLAG	' ' means this arm is not  locally mirrored. 'A' means this is the designated first arm of a locally mirrored pair. 'B' means this is the designated second arm of a locally mirrored pair.	C (1)
DMSTS	Local mirroring status. 1 = active, 2 = resuming, 3 = suspended	PD (1,0)
DMIRN	Locally mirrored IOP resource name	C (10)
DMDRN	Locally  mirrored device resource name	C (10)
DSRDS	Number of read data commands.	PD (11,0)
DSWRTS	Number of write data commands.	PD (11,0)
DSBUFO	Number of buffer overruns: The number of times that data was available to be read into the disk controller buffer from the disk, but the disk controller buffer still contained valid data that was not retrieved by the storage device controller. Consequently, the disk had to take an additional revolution until the buffer was available to accept data. This field is 0 for disk drive type 6100.	PD (11,0)

Field Name	Description	Attribute
DSBUFU	Number of buffer underruns: The number of times that the disk controller was ready to transfer data to the disk on a write, but the disk controller buffer was empty. The data was not transferred in time by the disk IOP to the disk controller buffer. The disk was forced to take an extra revolution awaiting the data. This field is 0 for disk drive type 6100.	PD (11,0)
DSMDLN	Model Number: The model number of the disk drive.	C (4)
DSDCRH	Device cache read hits: The number of times that all of the data requested by the read operation was obtained from the device read or write cache.	PD (11,0)
DSDCPH	Device cache partial read hits: The number of times that a portion, but not all, of the data requested by the read operation was obtained by the device read or write cache. A physical operation to the device media was required to obtain the remaining data.	PD (11,0)
DSDCWH	Device cache write hits: The number of times that the data associated with a write operation replaces, or is combined with, existing data in the device write cache, thereby eliminating a write operation.	PD (11,0)
DSDCFW	Device cache fast writers: The number of times that space was available in the device write cache for the data associated with a write operation and a response was returned immediately.	PD (11,0)
DSDROP	Device read operations: The number of read operations issued to the device by the controller. This includes operations generated for redundant system data areas. It does not include operations generated for diagnostics or access to the controller reserved area that occur during this idle time.	PD (11,0)
DSDWOP	Device write operations: The number of write operations issued to the device by the controller. This includes operations generated for redundant system data areas. It does not include operations generated for diagnostics or access to the controller reserved area that occur during this idle time.	PD (11,0)
DSCCRH	Controller cache read hits: The number of times that all of the data requested by the read operation was obtained from the controller read or write cache.	PD (11,0)
DSPCPH	Controller cache partial read hits: The number of times that a portion of the data requested by the read operation was obtained from the controller read and write cache. An operation to the device was required to obtain the remaining data.	PD (11,0)
DSCCWH	Controller cache writes hits: The number of times that the data associated with the write operation replaces or is combined with existing data in the controller write cache. This eliminates a write operation.	PD (11,0)
DSCCFW	Controller cache fast writes: The number of times that space was available in the controller write cache for the data associated with a write operation and a response was returned immediately.	PD (11,0)
DSCOMP	Compressed Unit indicator. '0' if disk data is not compressed and '1' if disk data is compressed.	C (1)
DSPBU	Physical blocks used. For compressed units, this field contains the total number of physical blocks used (written) in the device user data area. For non-compressed units, this field contains 0.	PD (11,0)
DSPBA	Physical blocks allocated. For compressed units, this field contains the total number of physical blocks committed (reserved) in the device user data area for DASD extents. This value includes all of the Physical Blocks Used. For non-compressed units, this field contains 0.	PD (11,0)
DSLBW	Logical blocks written. For compressed units, this field contains the total number of logical blocks written in the device user data area. This value represents the total amount of data written to allocated extents. For non-compressed units, this field contains 0.	PD (11,0)



Field Name	Description	Attribute
DSLBA	Logical blocks allocated. For compressed units, this field contains the total number of logical blocks contained in allocated compression groups. This value represents the total sum of all allocated compression groups in the device user data area. For non-compressed units, this field contains 0.	PD (11,0)
DSPBCO	Physical blocks for compression overhead. For compressed units, this field contains the total number of physical blocks that are used for compression directory structures and reserved areas that are unavailable for storing user data. For non-compressed units, this field contains 0.	PD (11,0)
DSFGDR	Foreground directory reads. For compressed units, this field is the number of device read operations that have been performed to read directory structures required to complete host system commands. For non-compressed units, this field contains 0.	PD (11,0)
DSFGDW	Foreground directory writes. For compressed units this is the number of device write operations that have been performed to write directory structures required to complete host system commands. For non-compressed units, this field contains 0.	PD (11,0)
DSBGDR	Background directory reads. For compressed units, this is the number of device read operations that have been performed in the management of compression directory structures, but were not immediately required to complete host system commands. For non-compressed units, this field contains 0.	PD (11,0)
DSBGDW	Background directory writes. For compressed units, this is the number of device write operations. For non-compressed units, this field contains 0.	PD (11,0)
DSFGRE	Foreground read exceptions. For compressed units, this is the number of times an additional device read operation was issued to read data that had been stored in the exception area on a compressed device (this count applies only to multi-page operations). This count reflects only those operations immediately required to complete host system commands.	PD (11,0)
DSFGWE	Foreground write exceptions. For compressed units, this field is the number of times an additional device write operation was issued to write data into the exception area on a compressed device (this count applies only to multi-page operations). This count reflects only those operations immediately required to complete host system commands. For non-compressed units, this field contains 0.	PD (11,0)
DSFGS	Foreground sweeps. For compressed units, a sweep is the process used to store a 1-MB compression group in the correct number of sectors so there are no unused areas in the data region and no used areas in the exception region of the compression group. The number of foreground sweeps is the number of times an entire 1-MB compression group was required to be swept to complete host system commands. The sweep is needed because the data for a host system write operation does not fit into the physical space reserved. The new data does not compress as well as the data that was previously in the space. For non-compressed units, this field contains 0.	PD (11,0)
DSBGS	Background sweeps. For compressed units, a sweep is the process used to store a 1-MB compression group in the correct number of sectors so there are no unused areas in the data region and no used areas in the exception region of the compression group. The number of background sweeps is the number of times an entire 1-MB compression group was swept to maintain the compressed data storage efficiency. This count reflects only those sweeps that were not immediately required to complete host system commands. Background sweeps are intended to increase performance or increase usable capacity of drive. For non-compressed units, this field contains 0.	PD (11,0)

Field Name	Description	Attribute
DSCERC	Controller simulated read cache hits: The number of times that all of the data requested by the read operation could have been, but was not, obtained from a controller read cache (not the controller write cache). This field is updated only when Extended Adaptive Cache Simulator is enabled.	PD (11,0)
DSASPN	ASP resource name. Specifies the resource name of the ASP to which this unit is currently allocated. A value of blanks specifies the system ASP or a basic ASP.	C (10)
DSPTS	Parity set. The value of this field is 1 when the disk unit is in a parity set; otherwise, it is 0.	C (1)
DSHAPS	High availability parity set. The value of this field is 1 when the disk unit is in a high availability parity set; otherwise, it is 0.	C (1)
DSMU	Multipath unit. The value of this field is 1 when the disk resource represents a multipath disk unit (see Note 5); otherwise, it is 0.	C (1)
DSIP	Initial path of multipath unit. The value of this field is 1 when the disk resource represents the initial path of a multipath disk unit; otherwise it is 0. The initial path is the first path observed by the system. It can change after restarting the system (IPL). The resource name of the initial path can be used for reporting a multipath disk unit under a single resource name.	C (1)
DSPC	Production copy of remotely mirrored independent ASP. The value of this field is 1 when the disk unit is in a production copy of a remotely mirrored independent ASP; otherwise, it is 0.	C (1)
DSMC	Mirror copy of remotely mirrored independent ASP. The value of this field is 1 when the disk unit is in a mirror copy of a remotely mirrored independent ASP; otherwise, it is 0.	C (1) 

**Notes:**

1. 9332/9335 inconsistencies:

- 9335 updates the idle count only when the processing unit (A) is not busy. Disk operations such as seek could be in progress. 9332 updates the idle count when there is no activity in any of its processors.
- If there is no movement and no head switch, the 9332 does not count this operation as a zero seek; the 9335 does.
- If an operation causes a head switch (starts a read or write on one track and ends up on another track), the 9332 counts this as a zero seek; the 9335 does not.

2.

9335: > 2/3	9332: >= 2/3
> 1/3 and <= 2/3	>= 1/3 and < 2/3
> 1/6 and <= 1/3	>= 1/6 and < 1/3
> 1/12 and <= 1/6	>= 1/12 and < 1/6
<= 1/12	< 1/12

3. The idle loop count and time are used to calculate the storage device controller utilization as follows:

Convert the product of the idle loop count times the idle loop time from hundredths of microseconds to seconds. Subtract this from the interval time, and divide the result by the interval time. For example:

$$\text{Disk processor utilization} = (\text{INTSEC} - (\text{DSIDLC} * \text{DSIDLT})/10^{**8}) / \text{INTSEC}$$

4. The following formulas describe how several of the fields in the previous table can be used to calculate utilization and service time for each arm. » For a multipath disk unit, these formulas will give the utilization and service time for each path (resource).«

- Arm utilization (DSUTL): The part of the total interval that the arm was being used for I/O operations.

$$DSUTL = \text{Arm Busy} = (DSSMPL - DSNBSY) / DSSMPL$$

- Arm accesses per second (DSAS): The number of reads and writes per second for this arm during the interval.

$$DSAS = (DSRDS + DSWRTS) / INTSEC$$

- Service time (DSSRVCT): The average time for an arm I/O operation. This includes disk controller time.

$$DSSRVCT = DSUTL / DSAS$$

» Use the following formula to calculate the service time (DSSTM) for a multipath disk unit, where Xi is the calculated value of X for the i-th path and sum(Xi) is the sum of Xi over all paths:

$$DSSTM = \text{sum}(DSSRVCT_i * (DSRDS_i + DSWRTS_i)) / \text{sum}(DSRDS_i + DSWRTS_i)$$

«

At low IOP utilizations (less than 5%), the service time should be ignored. This is a calculated value based on statistical sampling. When the number of samples is very low, the calculated value may not be accurate.

5. » Performance data is reported for each disk resource that is associated with a multipath disk unit. For a multipath disk unit, the following counters come from the device, which means that their values are duplicated for each disk resource that is reported:

- DSIDL - Processor idle loop count
- DSIDLT - Processor idle loop time
- DSSK1-6 - Number of seeks
- DSBUFO - Number of buffer overruns
- DSBUFU - Number of buffer underruns
- DSDCRH - Device cache read hits
- DSDCPH - Device cache partial read hits
- DSDCWH - Device cache write hits
- DSDCFW - Device cache fast writers
- DSDROP - Device read operations
- DSDWOP - Device write operations

Other field values that are duplicated include drive capacity (DSCAP) and drive available space (DSAVL).

The arm number (DSARM) and mirror flag (DMFLAG) of a particular multipath disk unit can be used to identify the records associated with that unit. «

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## Performance data files: QAPMDOMINO

This file contains data collected by the Domino<sup>(R)</sup> for iSeries<sup>(TM)</sup> category. It will contain 1 record per interval for each Domino server active on the system. For information about how Collection Services generates this file and where the data comes from, refer to "Performance data files: Collection Services system category and file relationships" on page 4.

**Note:** These descriptions include the name of the metric as it would be found in the Domino "show stat" function.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
DTECEN	Century digit: where 0 indicates 19XX and 1 indicates 20XX.	C (1)
DMSUBS	Server subsystem.	C (10)
DMJNAM	Server job name.	C (10)
DMJUSR	Server job user.	C (10)
DMJNBR	Server job number.	C (6)
DMSRVN	Server name (first 25 characters if the name is longer than this field).	C (25)
DMSSDT	Server start date time, (yyyymmddhhmmss).	C (14)
DMDBPM	Database.BufferPool.Maximum.Megabytes: The configured maximum size for database control pools that may be used.	B (9,0)
DMDBPP	Database.BufferPool.Peak.Megabytes: Maximum amount of the buffer pool that has been used by Domino over the life of the server.	B (9,0)
DMDBPR	Database.Database.BufferPool.PerCentReadsInBuffer: Percentage of database reads present in buffer pool.	B (5,2)
DMDBCH	Database.DbCache.Hits: Number of hits to the database cache.	B (18,0)
DMDBCL	Database.DbCache.Lookups: Number of lookups to the database cache.	B (18,0)
DMNLCH	Database.NAMELookupCacheHits: Number of cache hits when doing name lookups in the server's name and address book.	B (18,0)
DMNLCL	Database.NAMELookupCacheLookups: Number of lookups in the server's name and address book.	B (18,0)
DMASPN	Platform.LogicalDisk.1.AuxStoragePool: The number of the auxiliary storage pool (ASP) that includes the Domino data directory.	B (4,0)
DMASPU	Platform.LogicalDisk.1.PctUsed: Percent of total disk space used in the ASP that includes the Domino data directory. <b>Note:</b> This metric is calculated by the server and is based on an internal sample interval as configured for the server.	B (5,2)
DMASPB	Platform.LogicalDisk.1.PctUtil: Percent of time the drives are busy reading or writing in the ASP that includes the Domino data directory. <b>Note:</b> This metric is calculated by the server and is based on an internal sample interval as configured for the server.	B (5,2)
DMTRNS	Server.Trans.Total: Number of transactions.	B (18,0)
DMUSRO	Server.Users: Number of users with open sessions on the server. (This is the current value at time data was sampled.)	B (9,0)
DMUSRP	Server.Users.Peak: Peak number of concurrent users since the server was started.	B (9,0)
DMUSRT	Server.Users.Peak.Time: Time that last peak users occurred (YYYYMMDDHHMMSS).	C (14)
DMMLCP	Mail.TotalPending: Number of outbound mail messages in this server's MAIL.BOX waiting to be processed by the Domino Router job. Mail will be pending until the Router job wakes up and moves outgoing mail from MAIL.BOX to the destination mail servers. If a mail server cannot be contacted, the message will remain pending in MAIL.BOX. (This is the current value at the time data was sampled.)	B (9,0)

Field Name	Description	Attribute
DMMLWR	Mail.WaitingRecipients: Number of inbound mail messages in this server's MAIL.BOX waiting to be processed by the Domino Router job. Mail will be waiting until the Router job wakes up and moves incoming mail from MAIL.BOX into user mail files. (This is the current value at time data was sampled.)	B (9,0)
DMMLBX	Mail.Delivered: Combined number of inbound and outbound mail messages placed into this server's MAIL.BOX.	B (18,0)
DMCMCD	Domino.Command.CreateDocument: Count of 'CreateDocument' URLs that have come into the server.	B (18,0)
DMCMDD	Domino.Command.DeleteDocument: Count of 'DeleteDocument' URLs that have come into the server.	B (18,0)
DMCMED	Domino.Command.EditDocument: Count of 'EditDocument' URLs that have come into the server.	B (18,0)
DMCMOA	Domino.Command.OpenAgent: Count of 'OpenAgent' URLs that have come into the server.	B (18,0)
DMCMOB	Domino.Command.OpenDatabase: Count of 'OpenDatabase' URLs that have come into the server.	B (18,0)
DMCMOD	Domino.Command.OpenDocument: Count of 'OpenDocument' URLs that have come into the server.	B (18,0)
DMCMOF	Domino.Command.OpenForm: Count of 'OpenForm' URLs that have come into the server.	B (18,0)
DMCMOI	Domino.Command.OpenImageResource: Count of 'OpenImageResource' URLs that have come into the server.	B (18,0)
DMCMOV	Domino.Command.OpenView: Count of 'OpenView' URLs that have come into the server.	B (18,0)
DMCMSD	Domino.Command.SaveDocument: Count of 'SaveDocument' URLs that have come into the server.	B (18,0)
DMCMTU	Domino.Command.Total: Count of all URLs that have come into the server.	B (18,0)
DMRQ1M	Domino.Requests.Per1Minute.Total: Total requests over the past minute. (This is the current value at the time data was sampled.)	B (9,0)
DMNPT1	NET.*: Domino port (1 of 4) for which data is being reported. <b>Note:</b> The asterisk (*) in the node name indicates the name of the port.	C (32)
DMNBR1	NET.*.BytesReceived: Number of network bytes received for this port. <b>Note:</b> The asterisk (*) in the node name indicates the name of the port.	B (18,0)
DMNBS1	NET.*.BytesSent: Number of network bytes sent for this port. <b>Note:</b> The asterisk (*) in the node name indicates the name of the port.	B (18,0)
DMNSI1	NET.*.Sessions.Established.Incoming: Number of Incoming sessions established for this port. <b>Note:</b> The asterisk (*) in the node name indicates the name of the port.	B (9,0)
DMNSO1	NET.*.Sessions.Established.Outgoing: Number of Outgoing sessions established for this port. <b>Note:</b> The asterisk (*) in the node name indicates the name of the port.	B (9,0)
DMN*	<b>Note:</b> The above 5 fields are repeated for ports 2, 3, and 4.	

## Performance data files: QAPMDPS

» This file contains data port services performance data. Data port services is Licensed Internal Code (LIC) that supports the transfer of large volumes of data between a source system and one of *N* specified (switchable) target systems in an iSeries<sup>(TM)</sup> cluster. Data port services is used by LIC clients, such as, remote independent ASP mirroring. There will be one record per IP address per client per collection interval. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
DTECEN	Century digit. 0 indicates 19xx, and 1 indicates 20xx.	C (1)
DPTYPE	Client type. The type of client that is registered to data port services: <ul style="list-style-type: none"> <li>• 1 — Remote independent ASP mirroring.</li> </ul>	B (4,0)
DPNAME	Client name. The name of the client registered to data port services. This name is unique for a particular client type but might not be unique across all client types. This name is defined as follows by client type: <ul style="list-style-type: none"> <li>• 1 — ASP resource name of remotely mirrored primary independent ASP.</li> </ul>	C (10)
DPIPV	IP version. This field defines the IP version (4 or 6) for the target IP address.	B (4,0)
DPIPAD	Target IP address. The IP address of the target system. This record reports statistics for the client’s communication on the connection associated with this IP address. An IP version 4 address, which is 4 bytes wide, is right-justified and padded with zeroes.	H (16)
DPIPAS	Target IP address status. The value of this field is 1 if the target IP address is currently being used for messaging; otherwise, it is 0.	C (1)
DPNID	Target node ID. The node ID of the target system in the iSeries cluster.	C (8)
DPDTA1	Client data 1. Optional data provided by the client. This data is defined as follows by client type: <ul style="list-style-type: none"> <li>• 1 — ASP number of remotely mirrored primary independent ASP.</li> </ul>	B (9,0)
DPDTA2	Client data 2. Optional data provided by the client. This data is defined as follows by client type: <ul style="list-style-type: none"> <li>• 1 — Not defined.</li> </ul>	B (9,0)
DPDTA3	Client data 3. Optional data provided by the client. This data is defined as follows by client type: <ul style="list-style-type: none"> <li>• 1 — Not defined.</li> </ul>	C (10)
DPDTA4	Client data 4. Optional data provided by the client. This data is defined as follows by client type: <ul style="list-style-type: none"> <li>• 1 — Not defined.</li> </ul>	C (40)
DPASYN	Asynchronous mode. The value of this field is 1 for asynchronous mode; otherwise, this field is 0 for synchronous mode. For asynchronous mode, the client sends a message and receives an ACK back when the message is received but before it is processed by the remote client. For synchronous mode, the client sends a message and receives an ACK back after the message is received and processed by the remote client.	C (1)

Field Name	Description	Attribute
DPMS	Messages sent. The number of messages sent by the client. This value is incremented when the client requests a send; it does not depend on whether the send is successful.	B (18,0)
DPAS	Acknowledgments sent. The number of acknowledgments (ACKs) sent by the client.	B (18,0)
DPNS	Negative acknowledgments sent. The number of negative acknowledgments (NACKs) sent by the client.	B (18,0)
DPMR	Messages received. The number of messages received by the client.	B (18,0)
DPAR	Acknowledgments received. The number of acknowledgments (ACKs) received by the client.	B (18,0)
DPNR	Negative acknowledgments received. The number of negative acknowledgments (NACKs) received by the client.	B (18,0)
DPMRO	Messages retried once. The number of client messages retried only once. The messages counted are those associated with a data port services initiated retry and not a TCP-initiated retry.	B (18,0)
DPMRM	Messages retried more than once. The number of client messages retried more than once. The messages counted are those associated with data port services initiated retries and not TCP-initiated retries. If a message is retried two or more times, then this value is incremented by 1.	B (18,0)
DPTMR	Total message retries. The total number of client message retries. The retries counted are data port services initiated retries and not TCP-initiated retries. If a message is retried <i>n</i> times, then this value is incremented by <i>n</i> .	B (18,0)
DPMRR	Messages rerouted to alternate address. The number of messages rerouted to an alternate IP address because the attempt to transmit the message timed out too many times.	B (18,0)
DPMNA	Messages not acknowledged. The number of client messages sent that did not receive an ACK or NACK in response.	B (18,0)
DPMBR	Message bytes received. The number of bytes associated with messages received by the client. This does not include bytes associated with retries or ACK and NACK responses.	B (18,0)
DPMBS	Message bytes sent. The number of bytes associated with messages sent by the client. This does not include bytes associated with retries or ACK and NACK responses. This value is incremented when the client requests a send; it does not depend on whether the send is successful.	B (18,0)
DPSMS	Small messages sent. Number of messages of size less than or equal to 4K sent by the client.	B (18,0)
DPMMS	Medium messages sent. Number of messages of size greater than 4K but less than or equal to 64K sent by the client.	B (18,0)
DPLMS	Large messages sent. Number of messages of size greater than 64K sent by the client.	B (18,0)
DPSRTT	Smoothed round trip time in microseconds. Current estimate of the average round trip time up to the time the data was collected (see DTETIM field). This estimate is maintained by data port services. The round trip time is the time it takes for a client message to be sent and acknowledged successfully.	B (18,0)
DPTRTT	Total round trip time in microseconds. The sum of all of the round trip times. The round trip time is the time it takes for a client message to be sent and acknowledged successfully. Divide this value by round trips to get the average round trip time.	B (18,0)
DPRT	Round trips. The number of round trips. Divide total round trip time by this value to get average round trip time.	B (18,0) 

## Performance data files: QAPMECL

This data includes token-ring network file entries and lists the fields in the token-ring local area network (LAN) file. Token-ring protocol statistics are reported for active token-ring line descriptions that are associated with token-ring ports and with ATM ports that support token-ring LAN emulation. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name.	C(10)
EIOPI	Reserved	C (1)
ELITYPE	The resource type of the IOP or adapter represented by this record.	C (4)
ELLND	Line description: The name of the description for this line.	C (10)
ELLSP	Line speed: The line speed expressed in bits per second (bps).	PD (11,0)
ELTFT	Total number of Type II frames transmitted.	PD (11,0)
ELTFR	Total number of Type II frames received.	PD (11,0)
ELIFT	Total number of I-frames transmitted.	PD (11,0)
ELIFR	Total number of I-frames received.	PD (11,0)
ELICT	Total number of characters transmitted in all I-frames.	PD (11,0)
ELICR	Total number of characters received in all I-frames.	PD (11,0)
ELPRCL	Protocol type: E for token-ring network.	C (1)
ELRFT	Number of receive-not-ready frames transmitted.	PD (5,0)
ELRFR	Number of receive-not-ready frames received.	PD (5,0)
ELFFT	Number of frame-reject frames transmitted.	PD (5,0)
ELFFR	Number of frame-reject frames received.	PD (5,0)
ELRJFR	Number of reject frames received.	PD (5,0)
ELRJFT	Number of reject frames transmitted.	PD (5,0)
ELSFT	Number of set asynchronous balanced mode extended frames transmitted.	PD (5,0)
ELSFR	Number of set asynchronous balanced mode extended frames received.	PD (5,0)
ELDFT	Number of disconnect frames transmitted.	PD (5,0)
ELDFR	Number of disconnect frames received.	PD (5,0)
ELDMT	Number of disconnect mode frames transmitted.	PD (5,0)
ELDMR	Number of disconnect mode frames received.	PD (5,0)
ELN2R	N2 retries end count: This count is updated when the host has attempted to contact a station n times and n times the T1 timer ended before the station responded.	PD (5,0)
ELT1T	T1 timer end count: Number of times the T1 timer ended. This count is updated when the host has attempted to contact a station n times and n times the T1 timer ended before the station responded.	PD (5,0)
EMFTR	Total frames transmitted: Total number of frames (LLC and MAC) transmitted. This field does not apply to LAN emulation over ATM.	PD (11,0)



Field Name	Description	Attribute
EMFRV	Total frames received: Total number of frames (LLC and MAC) received. This field does not apply to LAN emulation over ATM.	PD (11,0)
EMMFT	MAC frames transmitted: Total number of MAC frames transmitted. This field does not apply to LAN emulation over ATM.	PD (11,0)
EMMFR	MAC frames received: Total number of MAC frames received. This field does not apply to LAN emulation over ATM.	PD (11,0)
EMRIT	Routing information frames transmitted: Total number of frames (LLC and MAC) with a routing-information field transmitted. This field does not apply to LAN emulation over ATM.	PD (11,0)
EMRIR	Routing information frames received: Total number of frames (LLC and MAC) with a routing-information field received. This field does not apply to LAN emulation over ATM.	PD (11,0)
EMLNE	Line error: Code violation of frame-check sequence error. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMINE	Internal error: Adapter internal error. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMBRE	Burst error: Burst of same polarity is detected by the physical unit after the starting delimiter of a frame or token. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMAFE	Address-recognized indicator or frame-copied indicator error: Physical control field-extension field error. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMABT	Abnormal ending delimiter: Abnormal ending delimiter transmitted because of internal error. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMLST	Lost frame: Physical trailer timer ended while IOA is in transmit stripping state. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMRXC	Receive congestion: Frame not copied because no buffer was available for the IOA to receive. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMFCE	Frame-copied error: The frame with a specific destination address was copied by another adapter. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMFQE	Frequency error on the adapter. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMTKE	Token error: The adapter that was ended by any token timer without detecting any frame or token. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMDBE	Direct memory access bus error: IOP/IOA bus DMA error. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMDPE	Direct memory access parity error: IOP/IOA DMA parity error. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMANR	Total number of frames with address not recognized error. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMFNC	Total number of frames with frame not copied error. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMTSE	Total number of adapter frame transmit or frame strip process errors. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMUAP	Unauthorized access priority: The access priority requested is not authorized. This field does not apply to LAN emulation over ATM.	PD (5,0)

Field Name	Description	Attribute
EMUMF	Unauthorized MAC frame: The adapter is not authorized to send a MAC frame with the source class specified, or the MAC frame has a source class of zero, or the MAC frame physical control field attention field is > 1. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMSFT	Soft error: Total number of soft errors as reported by the adapter. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMTBC	Total number of beacon frames transmitted. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMIOA	IOA status overrun: Adapter interrupt status queue overrun, earliest status discarded. This field does not apply to LAN emulation over ATM.	PD (5,0)
EMFDC	Total number of frames discarded. This field does not apply to LAN emulation over ATM.	PD (11,0)
EMSIN	Total number of interrupts that MAC could not decode. This field does not apply to LAN emulation over ATM.	PD (11,0)
EMBRV	Total MAC bytes received ok: This contains a count of bytes in frames that are successfully received. It includes bytes from received multicast and broadcast frames. This number includes everything starting from destination address up to but excluding FCS. Source address, destination address, length or type, and pad are included.	PD(11,0)
EMBTR	Total MAC bytes transmitted ok: Total number of bytes transmitted successfully. This number includes everything starting from destination address up to but excluding FCS. Source address, destination address, length or type, and pad are included.	PD(11,0)
EMFNTR	Total frames not transmitted: This contains a count of frames that could not be transmitted due to the hardware not signaling transmission completion for an excessive period of time. This field does not apply to LAN emulation over ATM.	PD(11,0)
EMRGUC	Ring use count. This field does not apply to LAN emulation over ATM. Percentage LAN utilization = EMRG*C.	PD(11,0)
EMRGSC	Ring sample count. This field does not apply to LAN emulation over ATM. Percentage LAN utilization = EMRG*C.	PD(11,0)
EMCVRF	FCS or code violations detected in repeated frames: This counter is incremented for every repeated frame that has a code violation or fails the frame check sequence (FCS) cyclic redundancy check. This field does not apply to LAN emulation over ATM.	PD(5,0)
EMFNR	Frames transmitted that failed to return: This counter is incremented when a transmitted frame fails to return from around the ring due to time out or the reception of another frame. This field does not apply to LAN emulation over ATM.	PD(5,0)
EMUNDR	Number of underruns: This counter is incremented each time a DMA underrun is detected. This field does not apply to LAN emulation over ATM.	PD(5,0)
EMDUP	The duplex state of the line. For some lines, this value might change over time. This field can have the following values: <ul style="list-style-type: none"> <li>Blank — The duplex state is not known</li> <li>F — Full duplex: the line can simultaneously transmit and receive data</li> <li>H — Half duplex: the line can either transmit data or receive data, but the line cannot simultaneously transmit and receive data.</li> </ul>	C (1)
EMUPF	Unsupported protocol frames: Number of frames that were discarded because they specified an unsupported protocol. This count is included in the frames discarded counter. This field does not apply to LAN emulation over ATM.	PD (11,0)

## Performance data files: QAPMETH

This data includes Ethernet file entries and lists the fields in the Ethernet file. Ethernet LAN protocol statistics are reported for the active Ethernet line descriptions that are associated with Ethernet ports and with ATM ports that support Ethernet LAN emulation. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name.	C(10)
ETIOPI	Reserved	C (1)
ETTYPE	The resource type of the IOP or adapter represented by this record.	C (4)
ETLLND	Line description: The name of the description for this line.	C (10)
ETLLSP	Line speed: The line speed expressed in bits per second (bps). For some lines, this value might change as time progresses.	PD (11,0)
ETLTFT	Total number of Type II frames transmitted.	PD (11,0)
ETLTRFR	Total number of Type II frames received.	PD (11,0)
ETLIFT	Total number of I-frames transmitted.	PD (11,0)
ETLIFR	Total number of I-frames received.	PD (11,0)
ETLICT	Total number of characters transmitted in all I-frames.	PD (11,0)
ETLICR	Total number of characters received in all I-frames.	PD (11,0)
ETLPRCL	Protocol type: T for Ethernet.	C (1)
ETLRFT	Number of receive-not-ready frames transmitted.	PD (5,0)
ETLRFR	Number of receive-not-ready frames received.	PD (5,0)
ETLFFT	Number of frame-reject frames transmitted.	PD (5,0)
ETLFFR	Number of frame-reject frames received.	PD (5,0)
ETLRJR	Number of reject frames received.	PD (5,0)
ETLRJT	Number of reject frames transmitted.	PD (5,0)
ETLSFT	Number of set asynchronous balanced mode extended frames transmitted.	PD (5,0)
ETLSFR	Number of set asynchronous balanced mode extended frames received.	PD (5,0)
ETLDFT	Number of disconnect frames transmitted.	PD (5,0)
ETLDFR	Number of disconnect frames received.	PD (5,0)
ETLDMT	Number of disconnect mode frames transmitted.	PD (5,0)
ETLDMR	Number of disconnect mode frames received.	PD (5,0)
ETLN2R	N2 retries end count: This count is updated when the host has attempted to contact a station n times and n times the T1 timer ended before the station responded.	PD (5,0)
ETLT1T	T1 timer end count: Number of times the T1 timer ended. This count is updated when the host has attempted to contact a station n times and n times the T1 timer ended before the station responded.	PD (5,0)

Field Name	Description	Attribute
ETLTIT	Number of times the TI timer (Inactivity Timer) expired. This count is updated when the host has attempted to contact a station n times and n times the T1 timer ended before the station responded.	PD (5,0)
ETLFRT	Number of times I-frame retransmission occurred.	PD (11,0)
ETLBRT	I frame bytes transmitted again.	PD (11,0)
ETLLBC	Local busy count: Number of times station entered local busy substate.	PD (5,0)
ETMFTG	Frames transmitted without error. This field does not apply to LAN emulation over ATM.	PD (11,0)
ETMFRG	Frames received without error. This field does not apply to LAN emulation over ATM.	PD (11,0)
ETMIFM	Inbound frames missed: A receiver buffer error or a missed frame was detected by the IOA. This field does not apply to LAN emulation over ATM.	PD (5,0)
ETMCRE	CRC error: Checksum errors detected by the receiver. This field does not apply to LAN emulation over ATM.	PD (5,0)
ETMEXR	More than 16 retries: Frame unsuccessfully transmitted due to excessive retries. This field does not apply to LAN emulation over ATM.	PD (11,0)
ETMOWC	Out of window collisions: Collision occurred after slot time of channel elapsed. This field does not apply to LAN emulation over ATM.	PD (5,0)
ETMALE	Alignment error: Inbound frame contained non-integer number of bytes and a CRC error. This field does not apply to LAN emulation over ATM.	PD (5,0)
ETMCRL	Carrier loss: Carrier input to the chipset on the IO adapters is false during transmission. This field does not apply to LAN emulation over ATM.	PD (5,0)
ETMTDR	Time-domain reflectometry: Counter used to approximate distance to a cable fault. This value is associated with the last occurrence of more than 16 retries. This field does not apply to LAN emulation over ATM.	PD (5,0)
ETMRBE	Receive buffer errors: A silo overflow occurred on receiving a frame. This field does not apply to LAN emulation over ATM.	PD (5,0)
ETMSPI	Spurious interrupts: An interrupt was received but could not be decoded into a recognizable interrupt. This field does not apply to LAN emulation over ATM.	PD (5,0)
ETMDIF	Discarded inbound frames: Receiver discarded frame due to lack of AIF entries. This field does not apply to LAN emulation over ATM.	PD (11,0)
ETMROV	Receive overruns: Receiver has lost all or part of an incoming frame due to buffer shortage. This field does not apply to LAN emulation over ATM.	PD (5,0)
ETMMEE	Memory error: The chipset on the IO adapters is the bus master and did not receive ready signal within 25.6 usecs of asserting the address on the DAL** lines. This field does not apply to LAN emulation over ATM.	PD (5,0)
ETMIOV	Interrupt overrun: Interrupt not processed due to lack of status queue entries. This field does not apply to LAN emulation over ATM.	PD (5,0)
ETMTUN	Transmit underflow: Transmitter has truncated a message due to data late from memory. This field does not apply to LAN emulation over ATM.	PD (5,0)
ETMBBE	Babble errors: Transmitter exceeded maximum allowable time on channel. This field does not apply to LAN emulation over ATM.	PD (5,0)
ETMSQE	Signal quality error: Signal indicating the transmit is successfully complete did not arrive within 2 usecs of successful transmission. This field does not apply to LAN emulation over ATM.	PD (5,0)
ETMM1R	More than 1 retry to transmit: Frame required more than one retry for successful transmission. This field does not apply to LAN emulation over ATM.	PD (11,0)

Field Name	Description	Attribute
ETM1R	Exactly one retry to transmit: Frame required 1 retry for successful transmission. This field does not apply to LAN emulation over ATM.	PD (11,0)
ETMDCN	Deferred conditions: The chipset on the IO adapters deferred transmission due to busy channel. This field does not apply to LAN emulation over ATM.	PD (11,0)
ETMBRV	Total MAC bytes received ok: This contains a count of bytes in frames that are successfully received. It includes bytes from received multicast and broadcast frames. This number includes everything starting from destination address up to but excluding FCS. Source address, destination address, length or type, and pad are included.	PD(15,0)
ETMBTR	Total MAC bytes transmitted ok: Total number of bytes transmitted successfully. This number includes everything starting from destination address up to but excluding FCS. Source address, destination address, length or type, and pad are included.	PD(15,0)
ETMFNT	Total frames not transmitted: This contains a count of frames that could not be transmitted due to the hardware not signaling transmission completion for an excessive period of time. This field does not apply to LAN emulation over ATM.	PD(11,0)
ETMMFD	Total mail frames discarded. This field does not apply to LAN emulation over ATM.	PD(5,0)
ETMTFD	Transmit frames discarded. This field does not apply to LAN emulation over ATM.	PD(5,0)
ETMDUP	The duplex state of the line. For some lines, this value might change over time. This field can have the following values: <ul style="list-style-type: none"> <li>• Blank — The duplex state is not known</li> <li>• F — Full duplex: the line can simultaneously transmit and receive data</li> <li>• H — Half duplex: the line can either transmit data or receive data, but the line cannot simultaneously transmit and receive data.</li> </ul>	C (1)
ETMUPF	Unsupported protocol frames: Number of frames that were discarded because they specified an unsupported protocol. This count is included in the discarded inbound frames counter. This field does not apply to LAN emulation over ATM.	PD (11)

## Performance data files: QAPMFRLY

This data includes frame relay counter entries. QAPMFRLY is a database file for the frame relay counter. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5 0)
DTETIM	Interval date (yyymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds.	PD (7 0)
IOPRN	IOP resource name.	C(10)
YIOPI	Reserved	C (1)
YITYPE	The resource type of the IOP or adapter represented by this record.	C (4)
YLND	Network interface (NWI) description: The name of the description for this network interface.	C (10)

Field Name	Description	Attribute
YLSP	Line speed: The line speed expressed in bits per second (bps).	PD (11,0)
YLTFT	Total number of frames transmitted.	PD (11,0)
YLTFR	Total number of frames received.	PD (11,0)
YLIFT	Total number of I-frames transmitted.	PD (11,0)
YLIFR	Total number of I-frames received.	PD (11,0)
YLICT	Total number of I-frames characters transmitted.	PD (11,0)
YLICR	Total number of I-frames characters received.	PD (11,0)
YLPCL	Protocol type: Y for frame relay.	C (1)
YLRFT	Number of receive-not-ready (RNR) frames transmitted.	PD (11,0)
YLRFR	Number of receive-not-ready (RNR) frames received.	PD (11,0)
YLFFT	Number of frame-reject frames transmitted.	PD (11,0)
YLFFR	Total number of frame-reject frames received.	PD (11,0)
YLRJFR	Number of reject frames received.	PD (11,0)
YLRJFT	Number of reject frames transmitted.	PD (11,0)
YLSFT	Number of set asynchronous balanced mode extended (SABME) frames transmitted.	PD (11,0)
YLSFR	Number of set asynchronous balanced mode extended (SABME) frames received.	PD (11,0)
YLDFT	Number of disconnect (DISC) frames transmitted.	PD (11,0)
YLDFR	Number of disconnect (DISC) frames received.	PD (11,0)
YLDMT	Number of disconnect mode (DM) frames transmitted.	PD (11,0)
YLDMR	Number of disconnect mode (DM) frames received.	PD (11,0)
YLN2R	N2 retries end count: This count is updated when the host has attempted to contact a station n times, and the T1 timer ended n times before the station responded.	PD (11,0)
YLT1T	T1 timer end count: Number of times the T1 timer ended. This count is updated when the host has attempted to contact a station n times, and the T1 timer ended n times before the station responded.	PD (11,0)
YMLTI	Local management interface (LMI) time-outs.	PD (11,0)
YMLSE	Local management interface (LMI) sequence errors.	PD (11,0)
YMLPE	Local management interface (LMI) protocol errors.	PD (11,0)
YMPDE	Port monitor data set ready (DSR) errors.	PD (11,0)
YMPCE	Port monitor clear to send (CTS) errors.	PD (11,0)
YMMER	MAC errors.	PD (11,0)

## Performance data files: QAPMHDLC

This data includes high-level data link control (HDLC) file entries. Statistics are kept on a line basis for the fields in the HDLC file. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: the nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name.	C (10)
SHIOP	Reserved	C (1)
SHTYPE	The resource type of the IOP or adapter represented by this record.	C (4)
SHLND	Line description: The name of the description for this line.	C (10)
SHLSP	Line speed: The speed of the line in bits per second (bps.)	PD (11,0)
SHBTRN	Bytes transmitted: The number of bytes transmitted including bytes transmitted again.	PD (11,0)
SHBRCV	Bytes received: The number of bytes received including all bytes in frames that had any kind of error.	PD (11,0)
SHPRCL	Protocol type: S for SDLC.	C (1)
SHFTRN	Number of frames transmitted (I, supervisory, and frames not numbered) excluding frames transmitted again.	PD (11,0)
SHIFTR	Number of I-frames transmitted excluding I-frames transmitted again.	PD (11,0)
SHIFRT	Number of I-frames transmitted again.	PD (11,0)
SHFRT	Number of I, supervisory, and frames not numbered transmitted again.	PD (11,0)
SHEFFR	Error-free frames received: The number of I, supervisory, and frames not numbered received without error (whether or not they were transmitted again from the remote side.)	PD (11,0)
SHEFIR	Error-free I-frames received: The number of I-frames received without error (whether or not they were transmitted again from the remote side.)	PD (11,0)
SHFRIE	Frames received in error: The number of I, supervisory, and frames not numbered received in error. There are three error possibilities: (1) a supervisory or I-frame was received with an Nr count that is requesting retransmission of a frame, (2) an I-frame was received with an Ns count that indicates that frames were missed, (3) a frame is received with one of the following errors: a frame check sequence error, an abnormal end, a receive overrun, or a frame truncated error.	PD (11,0)
SHIFR	Frames received that are not valid: The number of not valid frames received. These are frames received with either: (1) short frame error-frame is less than 32 bits or (2) residue error-frame is not on a byte boundary.	PD (11,0)
SHRRFT	Number of receive ready supervisory frames transmitted.	PD (11,0)
SHRRFR	Number of receive ready supervisory frames received.	PD (11,0)
SHRNRT	Number of receive not ready supervisory frames transmitted.	PD (11,0)
SHRNRR	Number of receive not ready supervisory frames received.	PD (11,0)
SHLNKR	Data link resets: The number of times a set normal response mode (SNRM) was received when the station was already in normal response mode.	PD (11,0)
SHCPT	The length of time (in tenths of seconds) that the system waits for the response to a poll while in normal disconnect mode before polling the next station.	PD (3,0)

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## Performance data files: QAPMHTTPB

This file contains data collected by the IBM<sup>(R)</sup> HTTP Server (powered by Apache) for iSeries<sup>(TM)</sup> category. It represents basic data associated with each instance of the server. This file will contain one record per interval per server instance. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
DTECEN	Century digit: where 0 indicates 19XX and 1 indicates 20XX.	C (1)
HTJNAM	Server job name (server name) This field and next two server job fields identify the child job for the server.	C (10)
HTJUSR	Server job user.	C (10)
HTJNBR	Server job number.	C (6)
HTSSDT	Server start date/time (yyyymmddhhmmss): most recent start or restart time.	C (14)
HTTHDA	Threads active: The number of threads doing work when the data was sampled.	B (9,0)
HTTHDI	Threads idle: The number of idle threads when the data was sampled.	B (9,0)
HTNINC	Inbound connections (not SSL): The number of non-SSL inbound connections accepted by the server.	B(18,0)
HTSINC	Inbound connections (SSL): The number of SSL inbound connections accepted by the server.	B (18,0)
HTRRCV	Requests received: The number of requests of all types received by the server.	B (18,0)
HTRSND	Responses sent: The number of responses of all types sent by the server.	B (18,0)
HTBRQR	Requests rejected: The number of requests received that were not valid.	B (18,0)

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## Performance data files: QAPMHTTPD

This file contains detail data collected by the HTTP Server (powered by Apache) category. It contains data that is repeated for different request types which are processed by the server. One record will be written to this file for each configured request type in each active server instance each interval. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

**Note:** Request types will be reported as long as they are configured for the server regardless of whether or not any data was processed by them.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
DTECEN	Century digit: where 0 indicates 19XX and 1 indicates 20XX.	C (1)



Field Name	Description	Attribute
HTJNAM	Server job name (server name): This and next two server job fields identify the child job for the server.	C (10)
HTJUSR	Server job user.	C (10)
HTJNBR	Server job number.	C (6)
HTRTYP	Request type: This identifies the type of request being reported by this record. Typical values are: <ul style="list-style-type: none"> <li>• SR - Requests handled internally by server</li> <li>• SL - Requests of all types received via SSL (SSL is not actually a request type. This record reports activity that occurred over an SSL connection even though that activity is also reported with other applicable request types.)</li> <li>• PX - Proxy requests</li> <li>• CG - CGI requests</li> <li>• WS - WebSphere<sup>(R)</sup> requests</li> <li>• JV - IBM<sup>(R)</sup> Java<sup>(TM)</sup> Servlet Engine requests</li> <li>• UM - Requests handled by user modules</li> <li>• FS - Static requests handled by FRCA (Fast Response Cache Accelerator)</li> <li>• FX - Requests proxied by FRCA</li> </ul>	C (2)
HTRQSR	Requests received.	B (18,0)
HTRQSS	Responses sent.	B (18,0)
HTBRQS	Error responses sent.	B (18,0)
HTNOCR	Non-cached requests processed. <b>Note:</b> Cache is not used and therefore this field is reserved for the following request types: SL, CG, WS, JV, and UM.	B (18,0)
HTBRCV	Bytes received.	B (18,0)
HTBSND	Bytes sent.	B (18,0)
HTNRTM	Processing time for non-cached requests in milliseconds.	B (9,0)
HTCRTM	Processing time for cached requests in milliseconds. <b>Note:</b> cache is not used and therefore this field is reserved for the following request types: SL, CG, WS, JV, and UM.	B (9,0)



## Performance data files: QAPMIDLC

This data includes integrated services digital network (ISDN) data link control file entries and lists the fields in the ISDN data link control (IDLC) file. For information about how Collection Services generates this file and where the data comes from, refer to "Performance data files: Collection Services system category and file relationships" on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name.	C(10)
ISIOP	Reserved	C (1)
ISTYPE	The resource type of the IOP or adapter represented by this record.	C (4)
ISLND	Line description: The name of the line description.	C (10)

Field Name	Description	Attribute
ISNWI	Network interface description: The name of the network interface description.	C (10)
ISLSP	Link speed: The speed of this channel in bits per second.	PD (11,0)
ISPRCL	Protocol type: I for IDLC.	C (1)
ILCRCE	Receive CRC errors: The number of received frames that contain a cycle redundancy check (CRC) error.	PD (11,0)
ILSFE	Short frame errors: The number of short frames received. A short frame is a frame that has fewer octets between its start flag and end flag than is permitted.	PD (11,0)
ILORUN	Receive overrun: The number of times the ISDN subsystem could not keep pace with incoming data because of local controller overload.	PD (11,0)
ILURUN	Transmit underrun: The number of times the ISDN subsystem could not keep pace with outgoing data because of local controller overload.	PD (11,0)
ILABRT	Aborts received: The number of frames received that contained HDLC abort indicators.	PD (11,0)
ILFRIE	Frames received in error: The sum of receive CRC errors, short frame errors, receive overrun, transmit underrun, aborts received, and frame sequence errors (ILCRCE, ILSFE, ILORUN, ILURUN, ILABRT, ISSEQE).	PD (11,0)
ISFRT	Retransmitted frames.	PD (11,0)
ISSEQE	Sequence errors: The number of received frames that contained sequence numbers indicating frames were lost.	PD (11,0)
ISFTRN	Total number of frames transmitted: This includes information (I), unnumbered information (UI), and supervisory (S) frames sent to a remote link station. This includes frames retransmitted and frames sent on transmissions stopped by transmit underruns, in addition to successful transmissions.	PD (11,0)
ISFRCV	Total number of frames received: This includes information (I), unnumbered information (UI), and supervisory (S) frames received from the remote link station. This includes no errors.	PD (11,0)
ISBTRN	Total bytes transmitted: The total number of bytes transmitted to a remote link station. This includes bytes retransmitted and bytes sent on transmissions stopped by a transmit underrun, in addition to successful transmissions.	PD (11,0)
ISBRVC	Total bytes received: The total number of bytes received from the remote link station. This includes no errors.	PD (11,0)
ISB1	B1 channel: Set to one if the B1 channel was used.	PD (1,0)
ISB2	B2 channel: Set to one if the B2 channel was used.	PD (1,0)
ISCHAN	B channel used: The B channel used is associated with a bit in this field being set to 1. Bit 0 (most significant bit) and 31 (least significant bit) are reserved. Bits 1 to 30 are associated with B channels 30 to 1, respectively.	C (4)

## Performance data files: QAPMIOPD

This table lists the fields in the IOP extended data file. Data is reported for the  Network Server (\*IPCS category) and I/O adapters (\*IOPBASE category). Network server data includes Integrated xSeries<sup>(R)</sup> Server data and virtual I/O data. Virtual I/O data consists of one record for each virtual device in use. If concurrent maintenance is done (adding or removing hardware under an IOP), the user should cycle the collector to insure that I/O adapter data is reported correctly.  For information about how Collection Services generates this file and where the data comes from, refer to "Performance data files: Collection Services system category and file relationships" on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTDA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): the date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: the number of seconds since the last sample interval. For operating system data (data type 2), this value might not be the same as the change in the interval date and time (DTETIM) for the interval because the elapsed interval time comes directly from the Integrated xSeries Server.	PD (7,0)
IOPRN	IOP resource name.	C(10)
XIIOP	Reserved	C (1)
XITYPE	The type of IOP represented by this record.	C (4)
XIDTYP	Data type: <ul style="list-style-type: none"> <li>• 1 — Reserved</li> <li>• 2 — OS/2<sup>(R)</sup> or other operating system (*IPCS category)</li> <li>• 3 — HPF386 (*IPCS category)</li> <li>• 4 — LAN Server (*IPCS category)</li> <li>• 5 — Virtual I/O (*IPCS category)</li> <li>• A — I/O adapter (*IOPBASE category)</li> </ul>	C (1)
XIDTA1	Data field 1	C (2)
XIDTA2	Data field 2	C (12)
XICT01	Counter 1	PD (11)
XICT02	Counter 2	PD (11)
XICT03	Counter 3	PD (11)
XICT04	Counter 4	PD (11)
XICT05	Counter 5	PD (11)
XICT06	Counter 6	PD (11)
XICT07	Counter 7	PD (11)
XICT08	Counter 8	PD (11)
XICT09	Counter 9	PD (11)
XICT10	Counter 10	PD (11)
XICT11	Counter 11	PD (11)
XICT12	Counter 12	PD (11)
XICT13	Counter 13	PD (11)
XICT14	Counter 14	PD (11)
XICT15	Counter 15	PD (11)
XICT16	Counter 16	PD (11)
XICT17	Counter 17	PD (11)
XICT18	Counter 18	PD (11)
XICT19	Counter 19	PD (11)
XICT20	Counter 20	PD (11)
XICT21	Counter 21	PD (11)
XICT22	Counter 22	PD (11)
XICT23	Counter 23	PD (11)

Field Name	Description	Attribute
XICT24	Counter 24	PD (11)
XICT25	Counter 25	PD (11)
XICT26	Counter 26	PD (11)
XICT27	Counter 27	PD (11)
XICT28	Counter 28	PD (11)
XICT29	Counter 29	PD (11)
XICT30	Counter 30	PD (11)
XICT31	Counter 31	PD (11)
XICT32	Counter 32	PD (11)
XICT33	Counter 33	PD (11)
XICT34	Counter 34	PD (11)
XICT35	Counter 35	PD (11)
XICT36	Counter 36	PD (11)
XICT37	Counter 37	PD (11)
XICT38	Counter 38	PD (11)
XICT39	Counter 39	PD (11)
XICT40	Counter 40	PD (11)
XICT41	Counter 41	PD (11)
XICT42	Counter 42	PD (11)
XICT43	Counter 43	PD (11)
XICT44	Counter 44	PD (11)
XICT45	Counter 45	PD (11)
XICT46	Counter 46	PD (11)
XICT47	Counter 47	PD (11)
XICT48	Counter 48	PD (11)
XICT49	Counter 49	PD (11)
XICT50	Counter 50	PD (11)
XIADRN	Adapter resource name: If the resource reported is an adapter, then this field will contain the resource name of that adapter. If the resource reported is an IOP, then this field will contain the resource name of that IOP.	C (10)
❖ XINWSD	Network server description name (blanks are reported if a network server (NWSD) name is not applicable).	C (10) ❖



**Note:**

The following chart shows the types of counters used.

**D (Delta counter):** Number of occurrences in the interval (what most performance counters are).

**S (State counter):** The value at the time of collection or the maximum value during the interval.

XIDTYP = '1' (Reserved)	
XIDTYP = '2' (OS/2 or other operating system)	
Counter	Description

(CTO1) D	CPU time (milliseconds). This value is normalized to the range of a single processor for adapters that have multiple processors.
(CTO2) D	Number of times threads rescheduled
(CTO3) D	Number of interrupts
(CTO4) D	CPU time servicing interrupts (milliseconds)
(CTO5) D	Number of page faults
(CTO6) D	Number of pages swapped in
(CTO7) D	Number of pages demand-loaded
(CTO8) D	Number of pages swapped out
(CTO9) D	Number of pages discarded
(CT10) D	Number of idle pages recovered
(CT11) D	Number of pages idled
(CT12) D	Number of idle pages reassigned
(CT13) S	Number of elements in free queue
(CT14) S	Length of time elements in free queue (milliseconds)
(CT15) S	Number of elements in used queue
(CT16) S	Length of time elements in used queue (milliseconds)
<b>XIDTYP = '3' (HPFS386)</b>	
<b>XIDTYP = '4' (LAN server)</b>	
Record types 3 (HPFS386) and 4 (LAN server) refer to functions that are no longer supported. To view information for record types 3 and 4, refer to the V4R4 Work Management  book (SC41-5306-03) on the V5R1 Supplemental Manuals Web site.	
<b>XIDTYP = '5' (Virtual I/O)</b>	
<b>Counter</b>	<b>Description</b>
(DTA1) S	Type of a virtual device: <ul style="list-style-type: none"> <li>' 1' = Adapter</li> <li>' 2' = Disk</li> <li>' 3' = Optical</li> <li>' 4' = Tape</li> </ul>
(DTA2) S	<ul style="list-style-type: none"> <li>Characters 1-10: Virtual device name. Note: For tape and optical devices this is the device resource name. For disk devices, this is the name of the network server storage space.</li> <li>Characters 11-12: Reserved (blank).</li> </ul>
(CTO1) D	Read operations
(CTO2) D	Write operations
(CTO3) D	Other operations
(CTO4) D	Operations resulting in an error
(CTO5) D	Kilobytes read from virtual device
(CTO6) D	Kilobytes written to virtual device
(CTO7) S	Reserved
(CTO8) S	Reserved 
<b>XIDTYP = 'A' (I/O adapter data)</b>	

(DTA1) S:	Reserved (blank)
(DTA2) S:	<ul style="list-style-type: none"> <li>• Characters 1-4: I/O adapter type</li> <li>• Characters 5-7: I/O adapter model</li> <li>• Characters 8-12: Reserved (blank)</li> </ul>
(CT01) D:	Adapter time: Total processing time used by adapter tasks that are running in the primary IOP processor. Adapter tasks support the adapter and its attached hardware. For some old IOPs such as the 6112, adapter times are not reported.

## Performance data files: QAPMJOBMI

These database file entries contain task, primary, and secondary thread data that are collected with the \*JOBMI category. "Job" implies job, task, or thread. Collection Services provides data only for jobs that consume CPU during an interval. For information about how Collection Services generates this file and where the data comes from, refer to "Performance data files: Collection Services system category and file relationships" on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) for job interval entry and job completion date, and time (hhmmss) for job completion entry.	C (12)
INTSEC	Elapsed interval seconds.	PD (7,0)
DTECEN	Century digit.	C (1)
JBNAME	Job name/workstation name.	C (16)
JBUSER	Job user.	C (10)
JBNBR	Job number.	C (6)
JBTYPE	Job type. <ul style="list-style-type: none"> <li>• A:Autostart</li> <li>• B:Batch</li> <li>• I:Interactive</li> <li>• M:Subsystem monitor</li> <li>• R:Spool reader</li> <li>• S:System</li> <li>• V:SLIC task</li> <li>• W:Spool writer</li> <li>• X:SCPF job</li> </ul>	C (1)
JBSTYP	Job subtype. <ul style="list-style-type: none"> <li>• T:MRT (System/36<sup>TM</sup>) environment only</li> <li>• E:Evoke (communications batch)</li> <li>• P:Print driver job</li> <li>• J:Prestart job</li> <li>• F:M36 (Advanced/36 server job)</li> <li>• D:Batch immediate job</li> <li>• U:Alternative spool user</li> </ul>	C (1)

Field Name	Description	Attribute
JBSTSF	Status flag: indicates job status relative to this interval. The values are: <ul style="list-style-type: none"> <li>• 0 — normal interval collection</li> <li>• 1 — job started in interval</li> <li>• 2 — job ended in interval</li> <li>• 3 — job started and ended.</li> </ul> <b>Note:</b> Jobs that are rerouted or transferred will result in a termination record (JBSTSF = 2) and a new job record (JBSTSF = 1).	PD (1,0)
JBTYP	Task type (01:Resident task, 02:Supervisor task, 03:MI process task, 04:S36 emulation task).	C (2)
JBTYE	“Performance data files: Task type extender” on page 71.	C (2)
JBPOOL	Job pool.	C (2)
JBPTY	Job priority.	C (3)
JBCPU	Processing unit time used (in milliseconds).	PD (15,3)
JBRSP	Total transaction time (in seconds).	PD (15,3)
JBSLC	Time-slice value (in milliseconds).	PD (11,0)
JBNTTR	Number of transactions.	PD (11,0)
JBDBR	Number of synchronous database reads: Total number of physical synchronous database read operations for database functions.	PD (11,0)
JBNDDB	Number of synchronous nondatabase reads: Total number of physical synchronous nondatabase read operations for nondatabase functions.	PD (11,0)
JBWRT	Number of writes: Total number of physical database and nondatabase write operations.	PD (11,0)
JBAW	Total number of transitions from active state to wait state for this job.	PD (11,0)
JBWI	Total number of transitions from wait state to ineligible state for this job.	PD (11,0)
JBAI	Total number of transitions from active state to ineligible state for this job.	PD (11,0)
JBNDW	Number of synchronous nondatabase writes: Total number of synchronous physical nondatabase write operations for nondatabase functions.	PD (11,0)
JBDBW	Number of synchronous database writes: Total number of synchronous physical database write operations for database functions.	PD (11,0)
JBANDW	Number of asynchronous nondatabase writes: Total number of asynchronous physical nondatabase write operations for nondatabase functions.	PD (11,0)
JBADBW	Number of asynchronous database writes: Total number of asynchronous physical database write operations for database functions.	PD (11,0)
JBANDR	Number of asynchronous nondatabase reads: Total number of asynchronous physical nondatabase read operations for nondatabase functions.	PD (11,0)
JBADBR	Number of asynchronous database reads: Total number of asynchronous physical database read operations for database functions.	PD (11,0)
JBPW	Number of synchronous permanent writes.	PD (11,0)
JBPAGF	Number of PAG faults. Total number of times the program access group (PAG) was referred to, but was not in main storage. The Licensed Internal Code no longer uses process access groups for caching data. Because of this implementation, this field will always be 0 for more current releases.	PD (11,0)
JBOBIN	Number of binary overflows.	PD (11,0)
JBODEC	Number of decimal overflows.	PD (11,0)
JBOFLP	Number of floating point overflows.	PD (11,0)

Field Name	Description	Attribute
JBIPF	Number of times a page fault occurred on an address that was currently part of an auxiliary storage I/O operation.	PD (11,0)
JBWIO	Number of times the process explicitly waited for outstanding asynchronous I/O operations to complete.	PD (11,0)
JBSZWT	Total seize wait time (in milliseconds).	PD (15,3)
JBSKSC	Number of socket sends.	PD (11,0)
JBSKBS	Number of socket bytes sent.	PD (11,0)
JBSKRC	Number of socket receives.	PD (11,0)
JBSKBR	Number of socket bytes received.	PD (11,0)
JBXRFR	Stream file reads.	PD (11,0)
JBXRFW	Stream file writes.	PD (11,0)
JBTCPU	Total job CPU time in milliseconds. Total CPU time used by all threads of a multi-threaded job. This may not equal the sum of JBCPU for all threads due to timing differences in the collection and reporting of these values.	PD (15,3)
JBTHDF	Secondary thread flag. Identifies secondary threads of a multi-threaded job. The values are: 0 — tasks and primary threads, 1 — secondary threads.	PD (1,0)
JBTHID	Thread Identifier. A 4-byte displayable thread identifier. A hex string that is unique for threads within a process. It will be blank for tasks and prior release data.	C (8)
JBTHAC	Active threads. Current number of active threads in the process when the data was sampled. An active thread may be actively running, suspended, or waiting on a resource. Includes the primary thread.	PD (11,0)
JBTHCT	Threads created. Number of threads initiated within this job. Includes both active and terminated threads.	PD (11,0)
JBMTXT	Mutex wait time in milliseconds. Cumulative time the thread waited for a mutex.	PD (15,3)
JBIBM1	Reserved	PD (11,0)
JBINSX	Reserved.	PD (11,0)
JBSVIF	Server interactive flag. Set to '1' if the resource consumed by the function is charged to the interactive capability of the system.	C (1)
JBTFLT	Total page faults.	PD (11,0)
JBTDE	System task identifier.	C (8)
JBPTDE	Primary thread identifier.	C (8)
JBLDUM	Reserved.	PD (1,0)
JBEDBC	Database CPU time. The amount of CPU time (in milliseconds) used to perform database processing within the single thread or task. This field is provided on an individual task or thread basis. For multi-threaded jobs, values are not summarized across threads.	P (15,3)
JBTDBC	Total database CPU time. The amount of CPU time (in milliseconds) used to perform database processing within all threads of a multithreaded job. <b>Note:</b> This may not equal the sum of JBEDBC for all threads in a job. This field is provided for primary threads only.	P (15,3)
JBCOP	Number of primary commit operations performed under the task.	PD (11,0)
JBCOS	Number of secondary commit operations performed under the task. This includes application and system-provided referential integrity commits.	PD (11,0)
JBDOP	Number of primary decommit operations performed under the task.	PD (11,0)



Field Name	Description	Attribute
JBDOS	Number of secondary decommit operations performed under the task. This includes application and system-provided referential integrity decommits.	PD (11,0)
JBPJE	Number of physical journal write operations to disk performed under the task.	PD (11,0)
JBNSJE	Number of journal entries not directly related to SMAPP.	PD (11,0)
JBUJD	Number of SMAPP-induced journal entries deposited in user-provided journals.	PD (11,0)
JBSJD	Number of SMAPP-induced journal entries deposited in system-provided (default) journals.	PD (11,0)
JBBFW	Number of journal bytes written to disk. Such entries are packaged within the permanent area of the journal receiver. These are traditional journal entries which can be retrieved and displayed.	PD (15,0)
JBBFA	Number of bytes deposited within the permanent area of the journal receiver. This count includes both those bytes already written to disk and those still cached in main memory. These are traditional journal entries which can be retrieved and displayed.	PD (15,0)
JBBTW	Number of transient area journal receiver bytes written to disk. The transient area contains hidden journal entries produced by the system, used during IPL, and routed to this transient area only if the customer specifies *RmvIntEnt on the CHGJRN command. This transient area is a separate area on the disk, distinct from the disk space used to store the normal journal entries.	PD (15,0)
JBBTA	Number of bytes generated for the journal receiver transient area. This count includes both transient bytes already written to disk and those still cached in main memory. The transient area contains hidden journal entries produced by the system, used during IPL, and routed to this transient area only if the customer specifies *RmvIntEnt on the CHGJRN command. This transient area is a separate area on the disk, distinct from the disk space used to store the normal journal entries.	PD (15,0)
JBTWT	Amount of time this task spent waiting for journal bundles to be written to disk (in milliseconds). This includes time spent waiting for physical disk write operations initiated by this task to be serviced, as well as time spent waiting for physical disk write operations initiated by other tasks whose journal entries reside in the same journal bundle.	PD (11,0)
JBTNW	Number of times this task waited for journal bundles to be written to disk.	PD (11,0)
JBXRRR	Number of random stream file read operations. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (11,0)
JBXRRW	Number of random stream file write operations. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (11,0)
JBXRFS	Number of fsync operations. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (11,0)
JBXRBR	Stream file bytes read. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (15,0)
JBXRBW	Stream file bytes written. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (15,0)
JBFSH	Number of full secure sockets layer (SSL) handshakes that use server authentication.	PD (11,0)

Field Name	Description	Attribute
JBASH	Number of abbreviated (or fast) secure sockets layer (SSL) handshakes that use server authentication.	PD (11,0)
JBFSHA	Number of full secure sockets layer (SSL) handshakes that use server and client authentication.	PD (11,0)
JBASHA	Number of abbreviated (or fast) secure sockets layer (SSL) handshakes that use server and client authentication.	PD (11,0)
JBPGA	Total number of pages of temporary and permanent storage that have been allocated by the job since the job started	P (11,0)
JBPGD	Total number of pages of temporary and permanent storage that have been deallocated by the job since the job started.	P (11,0)
JBCUSR	The user profile that the job was running under at the time the data was sampled.	C (10) <<

## Performance data files: QAPMJOBOS

These database file entries contain data specific to OS/400<sup>(R)</sup> jobs. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) for job interval entry and job completion date, and time (hhmmss) for job completion entry.	C (12)
INTSEC	Elapsed interval seconds.	PD (7,0)
DTCEN	Century digit.	C (1)
JBNAME	Job name/workstation name.	C (10)
JBUSER	Job user.	C (10)
JBNBR	Job number.	C (6)
JBTYPE	Job type. <ul style="list-style-type: none"> <li>• A:Autostart</li> <li>• B:Batch</li> <li>• I:Interactive</li> <li>• M:Subsystem monitor</li> <li>• R:Spool reader</li> <li>• S:System</li> <li>• V:SLIC task</li> <li>• W:Spool writer</li> <li>• X:SCPF job</li> </ul>	C (1)
JBSTYP	Job subtype. <ul style="list-style-type: none"> <li>• T:MRT (System/36<sup>(TM)</sup> environment only)</li> <li>• E:Evoke (communications batch)</li> <li>• P:Print driver job</li> <li>• J:Prestart job</li> <li>• F:M36 (Advanced/36 server job)</li> <li>• D:Batch immediate job</li> <li>• U:Alternative spool user</li> </ul>	C (1)

Field Name	Description	Attribute
JBSTSF	Status flag: indicates job status relative to this interval. The values are: <ul style="list-style-type: none"> <li>• 0 — normal interval collection</li> <li>• 1 — job started in interval</li> <li>• 2 — job ended in interval</li> <li>• 3 — job started and ended.</li> </ul> <b>Note:</b> Jobs that are rerouted or transferred will result in a termination record (JBSTSF = 2) and a new job record (JBSTSF = 1.)	PD (1,0)
JBSSYS	Name of the subsystem the job is running in.	C (10)
JBSLIB	Name of the library the subsystem description is in.	C (10)
JBROUT	The routing entry index for the subsystem this job is in.	PD (5,0)
JBACCO	Job accounting code. Field cannot be displayed.	C (15)
JBRSP	Total transaction time (in seconds). <b>Note:</b> Certain OS/400 functions support the concept of a transaction. The definition of a transaction and the characteristics of a transaction are different depending on the type of job or the specific function of the job. For interactive jobs, display I/O transactions are counted. The transaction starts on detection of enter from the workstation; the transaction ends when the keyboard is unlocked. For SNADS jobs, a transaction is the processing of a distribution.	PD (15,3)
JBNTR	Number of transactions. <b>Note:</b> Certain OS/400 functions support the concept of a transaction. The definition of a transaction and the characteristics of a transaction are different depending on the type of job or the specific function of the job. For interactive jobs, display I/O transactions are counted. The transaction starts on detection of enter from the workstation; the transaction ends when the keyboard is unlocked. For SNADS jobs, a transaction is the processing of a distribution.	PD (11,0)
JBAIQT	Total application input queuing time (in hundredths of a second).	PD (15,1)
JBNAIQ	Number of application input queuing transactions.	PD (11,0)
JBRUT	Total resource usage time (in seconds).	PD (15,3)
JBNRU	Number of resource usage transactions.	PD (11,0)
JBPLN	Number of print lines: Number of lines written by the program. This does not reflect what is actually printed. Spooled files can be ended, or printed with multiple copies.	PD (11,0)
JBPPG	Number of print pages.	PD (11,0)
JBPFL	Number of print files.	PD (11,0)
JBLWT	Number of database writes (logical): Number of times the internal database write function was called. This does not include I/O operations to readers/writers, or I/O operations caused by the CPYSPLF or DSPSPLF command. If SEQONLY(*YES) is specified, these numbers show each block of records written, not the number of individual records written.	PD (11,0)
JBLRD	Number of database reads (logical): Number of times the database module was called. This does not include I/O operations to readers/writers, or I/O operations caused by the CPYSPLF or DSPSPLF command. If SEQONLY(*YES) is specified, these numbers show each block of records read, not the number of individual records read.	PD (11,0)
JBDBU	Number of miscellaneous database operations: Updates, deletes, force-end-of-data, commits, rollbacks, and releases (logical).	PD (11,0)
JBCPT	Number of communications writes: These do not include remote workstation activity. They include only activity related to OS/400-ICF files when the I/O is for an OS/400-ICF device.	PD (11,0)

Field Name	Description	Attribute
JBCGT	Number of communications reads (logical): These do not include remote workstation activity. They include only activity related to OS/400-ICF files when the I/O is for an OS/400-ICF device.	PD (11,0)
JBSPD	Total suspended time (in milliseconds.)	PD (11,0)
JBRRRT	Total time job waited during reroutes (in milliseconds.)	PD (11,0)
JBLND	Line description: Name of the communications line this workstation and its controller are attached to. This is only available for remote workstations.	C (10)
JBCUD	Controller description: Name of the controller this workstation is attached to.	C (10)
JB2LND	Secondary line description (pass-through and emulation only.)	C (10)
JB2CUD	Secondary controller description (pass-through and emulation only).	C (10)
JBIRN	IOP resource name.	C (10)
JBDRN	Device resource name.	C (10)
JBPORT	Workstation port number.	PD (3,0)
JBSTN	Workstation number.	PD (3,0)
JBPTSF	Pass-through source flag.	PD (1,0)
JBPTTF	Pass-through target flag.	PD (1,0)
JBEAF	Emulation active flag.	PD (1,0)
JBPCSF	iSeries <sup>(TM)</sup> Access application flag.	PD (1,0)
JBDDMF	Target DDM job flag.	PD (1,0)
JBMRTF	MRT flag.	PD (1,0)
JBS36E	Is job running in System/36 environment? (Y/N)	C (1)
JBQT	Total queuing time to enter the MRT (in hundredths of seconds).	PD (11,0)
JBMMT	Total time spent at MRTMAX (in seconds).	PD (11,0)
JBNEQT	Total number of entries into the MRT.	PD (11,0)
JBPUTN	The number of times ACPUT was called to send user or control data. Calls that result in no data being sent are not counted.	PD (11,0)
JBPUTA	The total amount of user and control data that was sent by the user's program. This value does not include the LLID, MAPNAME, or FMH-7 data lengths.	PD (11,0)
JBGETN	The number of times ACGET was called to receive user or control data. Calls that result in no data being given to the user application will not be counted.	PD (11,0)
JBGETA	The total amount of user and control data that was received by the user's program. This value does not include the LLID, MAPNAME, or FMH-7 data lengths.	PD (11,0)
JBPGIN	The number of intervals that begin at the first put of a chain and end when CD is returned to the user.	PD (11,0)
JBPGIL	The amount of time (in milliseconds) spent in intervals that begin at the first put of a chain and end when CD is returned to the user.	PD (11,0)
JBGGIL	The amount of time (in milliseconds) spent in intervals that begin when the first get of a get chain completes and ends when the first get of a new chain is issued.	PD (11,0)
JBRTI	This is the number of request I/O commands (REQIOs) issued to transmit data of any kind (including FMH-7s.)	PD (11,0)
JBRRRI	This is the number of REQIOs issued to receive data of any kind (including FMH-7s.)	PD (11,0)

Field Name	Description	Attribute
JBXSLR	File system symbolic link reads. This count includes the following file systems: Root, QOpenSys, and user-defined file systems.	PD (11,0)
JBXDYR	File system directory reads. This count includes the following file systems: Root, QOpenSys, and user-defined file systems.	PD (11,0)
JBDLCH	File system directory lookup cache hits.	PD (11,0)
JBDLCM	File system lookup cache misses. This count includes the following file systems: Root, QOpenSys, and user-defined file systems.	PD (11,0)
JBSJNM	Submitter's job name.	C (10)
JBSJUS	Submitter's job user.	C (10)
JBSJNB	Submitter's job number.	C (6)
JBSJFG	Submitted job flag. This flag is designed to differentiate locally submitted jobs from jobs that are submitted from remote systems. Currently, this flag supports locally submitted jobs only.	C (1)
JBRSYS	Reserved.	C (10)
JBDEVN	Reserved.	C (10)
JBRLNM	Reserved.	C (8)
JBLNLM	Reserved.	C (8)
JBMODE	Reserved.	C (8)
JBRMNT	Reserved.	C (8)
JBBUP	Reserved.	PD (11,0)
JBBDL	Reserved.	PD (11,0)
JBBFE	Reserved.	PD (11,0)
JBBCO	Reserved.	PD (11,0)
JBBRO	Reserved.	PD (11,0)
JBLBO	Reserved.	PD (11,0)
JLBC	Reserved.	PD (11,0)
JLBI	Reserved.	PD (11,0)
JLBS	Reserved.	PD (11,0)
JBDQS	Reserved.	PD (11,0)
JBDQR	Reserved.	PD (11,0)
JBNDA	Reserved.	PD (11,0)
JBNUS	Reserved.	PD (11,0)
JBSIT1	Reserved.	PD (11,0)
JBSIT2	Reserved.	PD (11,0)
JBSIT3	Reserved.	PD (11,0)
JBGRUP	Job group.	C (3)
JBTDE	System task identifier. This field cannot be displayed.	C (8)
JBFLAG	Job flag (See notes.) Field cannot be displayed.	C (2)
JBSVRT	Server type. The type of server represented by the job. A value of blank (or blank space) indicates that the job is not part of a server. » For more information see the Server Table. «	C (30)
JBFSOPN	File system opens. This count includes the following file systems: Root, QOpenSys, and user-defined files systems.	PD (11,0)

Field Name	Description	Attribute
JBFSDC	File system directory creates. This count includes the following file systems: Root, QOpenSys, and user-defined files systems.	PD (11,0)
JBFSNDC	File system non-directory creates. Count of create operations for non-directory objects such as files or symbolic links. This count includes the following file systems: Root, QOpenSys, and user-defined files systems.	PD (11,0)
JBFSDD	File system directory deletes. This count includes the following file systems: Root, QOpenSys, and user-defined files systems.	PD (11,0)
JBFSNDD	File system non-directory deletes. Count of delete operations for non-directory objects such as files or symbolic links. This count includes the following file systems: Root, QOpenSys, and user-defined files systems.	PD (11,0)

**Notes:**

**Job flags:**

Bit
0 Pass-through service
1 Pass-through target
2 Emulation active
3 iSeries Access application
4 Target DDM job
5 MRT
6-15 not used

## Performance data files: QAPMJOBS and QAPMJOB

The QAPMJOB file is provided for compatibility with the performance monitor and combines data from the QAPMJOBMI file and the QAPMJOBOS file. The QAPMJOBS file is created when the performance monitor database files are migrated with the Convert Performance Data (CVTPFRDTA) command to a newer release. Collection Services does not create the QAPMJOBS file.

The database files contain data for each job, task or thread (one record per job, task, or thread). Collection Services provides data only for jobs that consume CPU during an interval. "Job" means job, task, or thread. Data in this file comes from the \*JOBMI and \*JOBOS categories. For information about how Collection Services generates this file and where the data comes from, refer to "Performance data files: Collection Services system category and file relationships" on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) for job interval entry and job completion date, and time (hhmmss) for job completion entry.	C (12)
INTSEC	Elapsed interval seconds.	PD (7,0)
JBSSYS	Name of the subsystem the job is running in.	C (10)
JBSLIB	Name of the library the subsystem description is in.	C (10)
JBNAME	Job name/workstation name.	» C (16) «
JBUSER	Job user.	C (10)

Field Name	Description	Attribute
JBNBR	Job number.	C (6)
JBACCO	Job accounting code. Field cannot be displayed.	C (15)
JBTYP	Job type (A:Autostart, B:Batch, I:Interactive, M:Subsystem monitor, R:Spool reader, S:System, V:SLIC task, W:Spool writer, X:SCPF job)	C (1)
JBSTYP	Job subtype. (T:MRT (System/36 <sup>(TM)</sup> environment only) E:Evoke (communications batch), P:Print driver job, J:Prestart job, F:M36 (Advanced/36 server job), D:Batch immediate job, U:Alternative spool user.)	C (1)
JBTYP	Task type. (01:Resident task, 02:Supervisor task, 03:MI process task, 04:S36 emulation task).	C (2)
JBTYE	Task type extender. See "Performance data files: Task type extender" on page 71 for detailed information about a task type extender. (See note 1.)	C (2)
JBFLAG	Job flag. (Bit, 0:Pass-through source, 1:Pass-through target, 2:Emulation active, 3:iSeries <sup>(TM)</sup> Access application, 4:Target DDM job, 5:MRT, 6-15: Not used) Field cannot be displayed.	C (2)
JBS36E	Is job running in System/36 environment? (Y/N)	C (1)
JBPOOL	Job pool.	C (2)
JBPRTY	Job priority.	C (3)
JBCPU	Processing unit time (in milliseconds) used. (See note 2.)	» PD (15,3) «
JBRSP	Total transaction time (in seconds.) Certain OS/400 <sup>(R)</sup> functions support the concept of a transaction. The definition of transaction and the characteristics of a transaction are different depending on the type of job or the specific function of the job. For interactive jobs, display I/O transactions are counted. The transaction starts on detection of enter from the workstation; the transaction ends when the keyboard is unlocked. For SNADS jobs, a transaction is the processing of a distribution.	PD (15,3)
JBSLC	Time-slice value (in milliseconds.)	PD (11,0)
JBNTR	Number of transactions. Certain OS/400 functions support the concept of a transaction. The definition of transaction and the characteristics of a transaction are different depending on the type of job or the specific function of the job. For interactive jobs, display I/O transactions are counted. The transaction starts on detection of enter from the workstation; the transaction ends when the keyboard is unlocked. For SNADS jobs, a transaction is the processing of a distribution.	PD (11,0)
JBDBR	Number of synchronous database reads: Total number of physical synchronous database read operations for database functions. (See note 2.)	PD (11,0)
JBNDDB	Number of synchronous nondatabase reads: Total number of physical synchronous nondatabase read operations for nondatabase functions. (See note 2.)	PD (11,0)
JBWRT	Number of writes: Total number of physical database and nondatabase write operations. (See note 2.)	PD (11,0)
JBAW	Total number of transitions from active state to wait state for this job. (See note 2.)	PD (11,0)
JBWI	Total number of transitions from wait state to ineligible state for this job. (See note 2.)	PD (11,0)
JBAI	Total number of transitions from active state to ineligible state for this job. (See note 2.)	PD (11,0)
JBPLN	Number of print lines: Number of lines written by the program. This does not reflect what is actually printed. Spooled files can be ended, or printed with multiple copies. (See note 3.)	PD (11,0)

Field Name	Description	Attribute
JBPPG	Number of print pages. (See note 3.)	PD (11,0)
JBPFL	Number of print files. (See note 3.)	PD (11,0)
JBLWT	Number of database writes (logical): Number of times the internal database write function was called. This does not include I/O operations to readers/writers, or I/O operations caused by the CPYSPLF or DSPSPLF command. If SEQONLY(*YES) is specified, these numbers show each block of records written, not the number of individual records written. (See note 3.)	PD (11,0)
JBLRD	Number of database reads (logical): Number of times the database module was called. This does not include I/O operations to readers/writers, or I/O operations caused by the CPYSPLF or DSPSPLF command. If SEQONLY(*YES) is specified, these numbers show each block of records read, not the number of individual records read. (See note 3.)	PD (11,0)
JBDBU	Number of miscellaneous database operations: Updates, deletes, force-end-of-data, commits, rollbacks, and releases (logical). (See note 3.)	PD (11,0)
JBCPT	Number of communications writes: These do not include remote workstation activity. They include only activity related to OS/400-ICF files when the I/O is for an OS/400-ICF device. (See note 3.)	PD (11,0)
JBCGT	Number of communications reads (logical): These do not include remote workstation activity. They include only activity related to OS/400-ICF files when the I/O is for an OS/400-ICF device. (See note 3.)	PD (11,0)
JBSPD	Total suspended time (in milliseconds.) (See note 3.)	PD (11,0)
JBRRT	Total time job waited during reroutes (in milliseconds.) (See note 3.)	PD (11,0)
JBLND	Line description: Name of the communications line this workstation and its controller is attached to. This is only available for remote workstations. (See note 3.)	C (10)
JBCUD	Controller description: Name of the controller this workstation is attached to. (See note 3.)	C (10)
JB2LND	Secondary line description (pass-through and emulation only.) (See note 3.)	C (10)
JB2CUD	Secondary controller description (pass-through and emulation only.) (See note 3.)	C (10)
JBBRG	Reserved	PD (9,0)
JBPRG	Reserved	PD (9,0)
JBNDW	Number of synchronous nondatabase writes: Total number of synchronous physical nondatabase write operations for nondatabase functions. (See note 2.)	PD (11,0)
JBDBW	Number of synchronous database writes: Total number of synchronous physical database write operations for database functions. (See note 2.)	PD (11,0)
JBANDW	Number of asynchronous nondatabase writes: Total number of asynchronous physical nondatabase write operations for nondatabase functions. (See note 2.)	PD (11,0)
JBADBW	Number of asynchronous database writes: Total number of asynchronous physical database write operations for database functions. (See note 2.)	PD (11,0)
JBANDR	Number of asynchronous nondatabase reads: Total number of asynchronous physical nondatabase read operations for nondatabase functions. (See note 2.)	PD (11,0)
JBADBR	Number of asynchronous database reads: Total number of asynchronous physical database read operations for database functions. (See note 2.)	PD (11,0)
JBPW	Number of synchronous permanent writes. (See note 2.)	PD (11,0)
JBCS	Reserved	PD (11,0)




Field Name	Description	Attribute
JBPAFG	Number of PAG faults. Total number of times the program access group (PAG) was referred to, but was not in main storage. The Licensed Internal Code no longer uses process access groups for caching data. Because of this implementation, this field will always be 0 for more current releases. (See note 2.)	PD (11,0)
JBEAO	Reserved	PD (11,0)
JBOBIN	Number of binary overflows. (See note 2.)	PD (11,0)
JBODEC	Number of decimal overflows. (See note 2.)	PD (11,0)
JBOFLP	Number of floating point overflows. (See note 2.)	PD (11,0)
JBIPF	Number of times a page fault occurred on an address that was currently part of an auxiliary storage I/O operation. (See note 2.)	PD (11,0)
JBWIO	Number of times the process explicitly waited for outstanding asynchronous I/O operations to complete. (See note 2.)	PD (11,0)
JBIRN	IOP resource name. (See note 3.)	C (10)
JBDRN	Device resource name. (See note 3.)	C (10)
JIOPB	Reserved	PD(3,0)
JIOPA	Reserved	PD(3,0)
JBPORT	Workstation port number. (See note 3.)	PD (3,0)
JBSTN	Workstation number. (See note 3.)	PD (3,0)
JBPTSF	Pass-through source flag.	PD (1,0)
JBPTTF	Pass-through target flag.	PD (1,0)
JBEAF	Emulation active flag.	PD (1,0)
JBPCSF	iSeries Access application flag.	PD (1,0)
JBDDMF	Target DDM job flag.	PD (1,0)
JBMRTF	MRT flag.	PD (1,0)
JBROUT	The routing entry index for the subsystem this job is in.	PD (5,0)
JBAPT	Reserved.	PD (11,0)
JBNSW	Reserved.	PD (11,0)
JBSST	Reserved.	PD (11,0)
JBQT2	Reserved.	PD (11,0)
JBCDR	Reserved.	PD (11,0)
JBCDS	Reserved.	PD (11,0)
JBAIQT	Total application input queuing time (in hundredths of a second.) (See note 3.)	PD (15,1)
JBNAIQ	Number of application input queuing transactions. (See note 3.)	PD (11,0)
JBRUT	Total resource usage time (in seconds.) (See note 3.)	» PD (15,3) «
JBNRU	Number of resource usage transactions. (See note 3.)	PD (11,0)
JBQT	Total queuing time to enter the MRT (in hundredths of seconds.) (See note 3.)	PD (11,0)
JBMMT	Total time spent at MRTMAX (in seconds.) (See note 3.)	PD (11,0)
JBNEQT	Total number of entries into the MRT. (See note 3.)	PD (11,0)
JBPUTN	The number of times ACPUT was called to send user or control data. Calls that result in no data being sent are not counted. (See note 3.)	PD (11,0)

Field Name	Description	Attribute
JBPUTA	The total amount of user and control data that was sent by the user's program. This value does not include the LLID, MAPNAME, or FMH-7 data lengths. (See note 3.)	PD (11,0)
JBGETN	The number of times ACGET was called to receive user or control data. Calls that result in no data being given to the user application will not be counted. (See note 3.)	PD (11,0)
JBGETA	The total amount of user and control data that was received by the user's program. This value does not include the LLID, MAPNAME, or FMH-7 data lengths. (See note 3.)	PD (11,0)
JBPGIN	The number of intervals that begin at the first put of a chain and end when CD is returned to the user. (See note 3.)	PD (11,0)
JBPGIL	The amount of time (in milliseconds) spent in intervals that begin at the first put of a chain and end when CD is returned to the user. (See note 3.)	PD (11,0)
JBGGIL	The amount of time (in milliseconds) spent in intervals that begin when the first get of a get chain completes and ends when the first get of a new chain is issued. (See note 3.)	PD (11,0)
JBRTI	This is the number of request I/O commands (REQIOs) issued to transmit data of any kind (including FMH-7s.) (See note 3.)	PD (11,0)
JBRRI	This is the number of REQIOs issued to receive data of any kind (including FMH-7s.) (See note 3.)	PD (11,0)
JBSZWT	Total seize wait time in milliseconds. (See note 2.)	» PD (15,3) «
JBSKSC	Number of socket sends. (See note 3.)	PD (11,0)
JBSKBS	Number of socket bytes sent. (See note 3.)	PD (11,0)
JBSKRC	Number of socket receives. (See note 3.)	PD (11,0)
JBSKBR	Number of socket bytes received. (See note 3.)	PD (11,0)
JBXRFR	Stream file reads. (See note 2.)	PD (11,0)
JBXRFW	Stream file writes. (See note 2.)	PD (11,0)
JBXSLR	File system symbolic link reads. (See note 3.)	PD (11,0)
JBXDYR	File system directory reads. (See note 3.)	PD (11,0)
JBDLCH	File system directory lookup cache hits. (See note 3.)	PD (11,0)
JBDLCM	File system lookup cache misses.	PD (11,0)
JBSJNM	Submitter's job name. (See note 3.)	C (10)
JBSJUS	Submitter's job user. File system directory lookup cache hits. (See note 3.)	C (10)
JBSJNB	Submitter's job number. (See note 3.)	C (6)
JBSJFG	Submitted job flag. This flag is designed to differentiate locally submitted jobs from jobs that are submitted from remote systems. Currently, this flag supports locally submitted jobs only. (See note 3.)	C (1)
JBRSYS	Reserved.	C (10)
JBDEVN	Reserved.	C (10)
JBRLNM	Reserved.	C (8)
JBLLNM	Reserved.	C (8)
JBMODE	Reserved.	C (8)
JBRMNT	Reserved.	C (8)
JBINSX	Reserved.	PD (11,0)
JBBUP	Reserved.	PD (11,0)

Field Name	Description	Attribute
JBBDL	Reserved.	PD (11,0)
JBBFE	Reserved.	PD (11,0)
JBBCO	Reserved.	PD (11,0)
JBBRO	Reserved.	PD (11,0)
JBLBO	Reserved.	PD (11,0)
JBLBC	Reserved.	PD (11,0)
JBLBI	Reserved.	PD (11,0)
JBLBS	Reserved.	PD (11,0)
JBDQS	Reserved.	PD (11,0)
JBDQR	Reserved.	PD (11,0)
JBND A	Reserved.	PD (11,0)
JBNUS	Reserved.	PD (11,0)
JBSIT1	Reserved.	PD (11,0)
JBSIT2	Reserved.	PD (11,0)
JBSIT3	Reserved.	PD (11,0)
JBTCPU	Total job CPU in milliseconds. Total CPU used by all threads of a multi-threaded job. <b>Note:</b> This is not the sum of JBCPU for all job threads due to timing differences in the collection and reporting of these values. (See note 3.)	» PD (15,3) «
JBTHDF	Secondary thread flag. Identifies secondary threads of a multi-threaded job. The values are: 0 for tasks and primary threads; 1 for secondary threads.	PD (1,0)
JBTHID	Thread Identifier. A 4-byte displayable thread identifier. A hex string that is unique for threads within a process. It will be blank for tasks and prior release data.	C (8)
JBTHAC	Active threads. Current number of active threads in the process when the data was sampled. An active thread may be actively running, suspended, or waiting on a resource. Includes the primary thread. (See note 3.)	PD (11,0)
JBTHCT	Threads created. Number of threads initiated within this job. Includes both active and terminated threads. (See note 3.)	PD (11,0)
JBMTXT	Mutex wait time in milliseconds. Cumulative time the thread waited for a mutex. (See note 2.)	» PD (15,3) «
JBIBM1	Reserved	PD (11,0)
JBSTSF	Status flag: indicates job status relative to this interval. The values are: 0 — normal interval collection, 1 — job started in interval, 2 — job ended in interval, 3 — job started and ended. Jobs that are rerouted or transferred will result in a termination record (JBSTSF = 2) and a new job record (JBSTSF = 1)	PD (1,0)
JBSVIF	Server interactive flag. Set to '1' if the resource consumed by the function is charged to the interactive capability of the system.	C (1)
JBTFLT	Total page faults.	PD (11,0)
JBEDBC	Database CPU time. The amount of CPU time (in milliseconds) that is used to perform database processing within the single thread or task. (See note 3.)	P (15,3)
JBTDBC	Total database CPU time. The amount of CPU time (in milliseconds) that is used to perform database processing within all threads of a multithreaded job. <b>Note:</b> This may not equal the sum of JBEDBC for all job threads. (See note 3.)	P (15,3)
JBSVRT	Server type. The type of server represented by the job. A value of blank (or blank space) indicates that the job is not part of a server.	C (30)

Field Name	Description	Attribute
▶ JBCOP	Number of primary commit operations performed under the task.	PD (11,0)
JBCOS	Number of secondary commit operations performed under the task. This includes application and system-provided referential integrity commits.	PD (11,0)
JBDOP	Number of primary decommit operations performed under the task.	PD (11,0)
JBDOS	Number of secondary decommit operations performed under the task. This includes application and system-provided referential integrity decommits.	PD (11,0)
JBPJE	Number of physical journal write operations to disk performed under the task.	PD (11,0)
JBNSJE	Number of journal entries not directly related to SMAPP.	PD (11,0)
JBUJD	Number of SMAPP-induced journal entries deposited in user-provided journals.	PD (11,0)
JBSJD	Number of SMAPP-induced journal entries deposited in system-provided (default) journals.	PD (11,0)
JBBFW	Number of journal bytes written to disk. Such entries are packaged within the permanent area of the journal receiver. These are traditional journal entries which can be retrieved and displayed.	PD (15,0)
JBBFA	Number of bytes deposited within the permanent area of the journal receiver. This count includes both those bytes already written to disk and those still cached in main memory. These are traditional journal entries which can be retrieved and displayed.	PD (15,0)
JBBTW	Number of transient area journal receiver bytes written to disk. The transient area contains hidden journal entries produced by the system, used during IPL, and routed to this transient area only if the customer specifies *RmvIntEnt on the CHGJRN command. This transient area is a separate area on the disk, distinct from the disk space used to store the normal journal entries.	PD (15,0)
JBBTA	Number of bytes generated for the journal receiver transient area. This count includes both transient bytes already written to disk and those still cached in main memory. The transient area contains hidden journal entries produced by the system, used during IPL, and routed to this transient area only if the customer specifies *RmvIntEnt on the CHGJRN command. This transient area is a separate area on the disk, distinct from the disk space used to store the normal journal entries.	PD (15,0)
JBTWT	Amount of time this task spent waiting for journal bundles to be written to disk (in milliseconds). This includes time spent waiting for physical disk write operations initiated by this task to be serviced, as well as time spent waiting for physical disk write operations initiated by other tasks whose journal entries reside in the same journal bundle.	PD (11,0)
JBTNW	Number of times this task waited for journal bundles to be written to disk.	PD (11,0)
JBXRRR	Number of random stream file read operations. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (11,0)
JBXRRW	Number of random stream file write operations. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (11,0)
JBXRFS	Number of fsync operations. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (11,0)
JBXRBR	Stream file bytes read. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (15,0)

Field Name	Description	Attribute
JBXRBW	Stream file bytes written. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (15,0)
JBFSH	Number of full secure sockets layer (SSL) handshakes that use server authentication.	PD (11,0)
JBASH	Number of abbreviated (or fast) secure sockets layer (SSL) handshakes that use server authentication.	PD (11,0)
JBFSHA	Number of full secure sockets layer (SSL) handshakes that use server and client authentication.	PD (11,0)
JBASHA	Number of abbreviated (or fast) secure sockets layer (SSL) handshakes that use server and client authentication.	PD (11,0)
JBPGA	Total number of pages of temporary and permanent storage that have been allocated by the job since the job started	P (11,0)
JBPGD	Total number of pages of temporary and permanent storage that have been deallocated by the job since the job started.	P (11,0)
JBCUSR	The user profile that the job was running under at the time the data was sampled.	C (10)
JBFSOPN	File system opens. This count includes the following file systems: Root, QOpenSys, and user-defined files systems.	PD (11,0)
JBFSDC	File system directory creates. This count includes the following file systems: Root, QOpenSys, and user-defined files systems.	PD (11,0)
JBFSNDC	File system non-directory creates. Count of create operations for non-directory objects such as files or symbolic links. This count includes the following file systems: Root, QOpenSys, and user-defined files systems.	PD (11,0)
JBFSDD	File system directory deletes. This count includes the following file systems: Root, QOpenSys, and user-defined files systems.	PD (11,0)
JBFSNDD	File system non-directory deletes. Count of delete operations for non-directory objects such as files or symbolic links. This count includes the following file systems: Root, QOpenSys, and user-defined files systems.	PD (11,0) 

**Notes:**

1. For Detailed information about a task type extender, see “Performance data files: Task type extender”
2. These fields are provided on an individual task or thread basis. For multi-threaded jobs, they are not summarized across threads.
3. These fields are provided for primary threads only. If the field is a numeric counter, it is a cumulative total for all threads of a multi-threaded job.

## Performance data files: Task type extender

A task type extender identifies the area of functional support provided by the task.

The task type extender field is used to logically group together tasks that perform similar operations. This field is used primarily for performance monitoring. The table below lists the task type extender as two EBCDIC characters followed by the task type extender description.

For information about Collection Services files, see “Performance data files,” on page 1.

Performance tasks ('A' through 'A9')	
Field Name	Description
AP	Performance Collection Services probe

<b>Bus transport tasks ('B' through 'B9')</b>	
<b>Field Name</b>	<b>Description</b>
BB	Transport bus
BC	Transport cluster
BI	Transport SPD IOBU
BL	Transport log
BM	Transport SPD maintenance data
BR	Transport remote storage
BT	Transport twin optical
<b>Client server tasks ('C' through 'C9')</b>	
<b>Field Name</b>	<b>Description</b>
CS	Shared folder
<b>Device Driver Tasks ('D' through 'D9')</b>	
<b>Field Name</b>	<b>Description</b>
DA	Work station IOM
DB	PU2 station IOM
DC	Open station IOM
DD	Ethernet LAN IOM
DE	Bisynchronous 3270 IOM
DF	5294 station IOM
DG	X25 station IOM
DI	FDDI IOM
DJ	ISDN IOM
DK	Diskette IOM
DL	IDLC IOM
DO	Optical IOM
DP	PPP data link driver
» DR	Cryptography driver «
DS	DASD IOM
» DT	IOP driver
DU	LAN driver «
DV	Virtual terminal LUD IOM
DW	Wireless line IOM
DX	FAX line IOM
» DY	Frame relay IOM «
DZ	ILAN line IOM
D0	Service processor IOM
D1	Asynchronous station IOM
D2	Asynchronous line IOM
D3	Token-ring IOM
D4	Tape IOM
D5	Work station IOM

D6	Twinax IOM
D7	SDLC line IOM
D8	Bisynchronous IOM
D9	MTAM IOM
<b>Other tasks ('E' through 'E9')</b>	
<b>Field Name</b>	<b>Description</b>
EH	Maintain hardware resource information
EI	Miscellaneous I/O
EL	Error log
ES	Cryptography seed management
EV	Authority management extension verify
<b>Integrated xSeries<sup>(R)</sup> Server I/O management tasks ('F' through 'F9')</b>	
<b>Field Name</b>	<b>Description</b>
F0	Integrated xSeries Server IOM
FP	AIX <sup>(R)</sup> IOP IOM
FS	Integrated xSeries Server storage management IOM
<b>IPCF tasks ('I' through 'I9')</b>	
<b>Field Name</b>	<b>Description</b>
IR	IPCF router
IS	IPCF server
<b>Streams kernel tasks ('K' through 'K9')</b>	
<b>Field Name</b>	<b>Description</b>
KO	Streams server
<b>Save and restore, load and dump tasks ('L' through 'L9')</b>	
<b>Field Name</b>	<b>Description</b>
LM	Main load and dump
LP	Load and dump pipeline
<b>MSCP tasks ('M' through 'M9')</b>	
<b>Field Name</b>	<b>Description</b>
M0	MSCP
M1	Answer manager
M2	SNAP
<b>Pass-through tasks ('P' through 'P9')</b>	
<b>Field Name</b>	<b>Description</b>
PS	Source display pass-through
PT	Target display pass-through
<b>Resource management task ('R' through 'R9')</b>	
<b>Field Name</b>	<b>Description</b>
RC	Resource management machine data collector
RM	Resource management service
RP	Process
<b>Storage management I/O tasks ('S' through 'S9')</b>	

Field Name	Description
SA	Storage management asynchronous
SD	Storage management DASD server
SP	Page Out
SW	Save while active
SX	Expert cache
Database task ('T' through 'T9')	
Field Name	Description
TD	Database server
TX	Transaction management timer
Service function ('V' through 'V9')	
Service Function	Description
Server message block tasks ('W' through 'W9')	
Field Name	Description
WB	NetBIOS on TCP/IP
WS	Server message block
Other tasks ('Z' through 'Z9')	
Field Name	Description
ZF	Byte stream file asynchronous
ZI	Interrupt task class
ZR	Recovery
Advanced/36 tasks ('3' through '39')	
Field Name	Description
3A	Advanced/36 disk
3C	Advanced/36 workstation controller
3I	Advanced/36 diskette
3L	Advanced/36 communications line
3T	Advanced/36 tape
3W	Advanced/36 workstation/printer
36	Advanced/36 emulator main task

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## Performance data files: QAPMJOBWT

This file contains information about job, task, and thread wait conditions. At least one record will be written for each job, task, or thread that consumed CPU during the interval (multiple records are possible especially during service activities). For information about how Collection Services generates this file and where the data comes from, refer to "Performance data files: Collection Services system category and file relationships" on page 4.

The purpose of this file, is to account for the time a job (this means a task, primary thread, or secondary thread) spends waiting and to provide some indication as to the type of wait. Since the reasons for a wait are too numerous to handle individually, they are grouped into sets of functionally related waits. For each group, both the number of waits and time the job spent waiting are reported.



**Note:** Wait counters are updated when a job wakes up from a wait; therefore, counters for a job that are currently waiting will not change and the job will not even be reported if it has done no processing in the interval. When the wait is reported, it may be longer than the interval it was reported in.

The QAPMJOBWTD file provides a description of the type of wait conditions for each counter set. Although the file contains fields for up to 16 sets of counters, not all may be used. The number of counters is reported in field JWTNUM. If the number of instrumented counter sets is greater than 16, an additional record or records are written for each reported job.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
DTECEN	Century digit: where 0 indicates 19XX and 1 indicates 20XX.	C (1)
JWNAME	Job / task name.	C (16)
JWUSER	Job user.	C (10)
JWNBR	Job number.	C (6)
JWTDE	System task identifier.	C (8)
JWCURT	Current Wait Time: If the TDE is currently waiting (for example, was waiting when the sample was taken), this is non zero and reflects the amount of time in the current wait (this time is not included in other wait counter sets).	B (9,0)
JWCURE	Reserved.	B (9,0)
JWCURB	Current Wait Bucket: If the TDE is currently waiting, this is non zero and reflects the bucket that will be updated when the wait completes.	B (4,0)
JWDSEQ	Description sequence number: Identifies the QAPMJOBWTD records associated with this wait data.	B (4,0)
JWBGN	Beginning number of the first counter set reported in this record.	B (4,0)
JWCT01	Count 1. The number of times the job encountered wait conditions associated with this group.	B (9,0)
JWTM01	Time 1. The time in milliseconds the job spent waiting within this group.	B (9,0)
JWCTnn JWTMnn	Note: count and time are repeated for the 16 defined counter sets where nn ranges from 02 to 16.	(B (9,0) + B (9,0) ) * 15

## Performance data files: QAPMJOBWTD

This file contains a description of the counter sets found in file QAPMJOBWT. One record will be written for each active counter set when the first instance of wait data is encountered (normally at the beginning of the collection). Multiple instances of this data are possible during service activities.

For information about how Collection Services generates this file and where the data comes from, refer to "Performance data files: Collection Services system category and file relationships" on page 4.

Field Name	Description	Attribute
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval providing these descriptions. Normally this is the first interval in the *MGTCOL object.	C (12)
DTECEN	Century digit: where 0 indicates 19XX and 1 indicates 20XX.	C (1)

Field Name	Description	Attribute
JWDSEQ	Description sequence number: This provides a unique identifier for a set of descriptions. This value is used in file QAPMJOBWT field JWDSEQ to associate counter data with the proper set of descriptions. Each time updated descriptions are written to this file, this field will contain a new value for that set of descriptions.	B (4,0)
JWTNUM	Total number of wait counter sets reported.	B (4,0)
JWSNBR	Counter set number described by this record.	B (4,0)
JWDESC	Description of the type of data reported in the JWCTnn and JWTMnn fields. <b>Note:</b> This field is in Unicode.	C (50)

## Performance data files: QAPMJSUM

These database file entries contain job summary information. This file is produced only when \*JOBMI, \*JOBOS, and \*SYSLVL categories are all requested from the Create Performance Data (CRTPFRTA) command. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) for job interval entry and job completion date, and time (hhmmss) for job completion entry.	C (12)
INTSEC	Elapsed interval seconds.	PD (7,0)
DTECEN	Century digit.	C (1)
JSCBKT	Job group: Identifies the type of jobs for which data is being reported within this record. Values supported are: <ul style="list-style-type: none"> <li>• DDM: Distributed data management</li> <li>• CA4: iSeries<sup>(TM)</sup> Access</li> <li>• PAS: Pass-through</li> <li>• MRT: Multiple requester terminal</li> <li>• S6E: System/36<sup>(TM)</sup> environment</li> <li>• CME: Communications batch</li> <li>• AUT: Autostart batch</li> <li>• BCH: Batch jobs (not included within other groups)</li> <li>• INT: Interactive &gt;&gt; jobs (job type "I" not reported in other buckets above)&lt;&lt;</li> <li>• SPL: Spool jobs and the Start CPF job.</li> </ul> <p>&gt;&gt; <b>Note:</b> Every job is categorized and reported in one and only one of the above job groups.</p> <ul style="list-style-type: none"> <li>• INF: Interactive Feature (This group reports the data that is associated with jobs that the machine considers to be interactive. The resource that is consumed in these jobs may be included in the Interactive Feature Utilization. &lt;&lt;</li> </ul>	C (3)
JSCPU	Processing unit time (in milliseconds) used.	PD (11,0)
JSTRNT	Total transaction time (in seconds.)	PD (15,3)
JSTRNS	Number of transactions.	PD (11,0)

Field Name	Description	Attribute
JSPRTL	Number of print lines: Number of lines written by the program. This does not reflect what is actually printed. Spooled files can be ended or printed with multiple copies.	PD (11,0)
JSPRTP	Number of print pages.	PD (11,0)
JSSPD	Total suspended time (in milliseconds.)	PD (11,0)
JSRRT	Total time job waited during reroutes (in milliseconds.)	PD (11,0)
JSNEW	New jobs.	PD (11,0)
JSTERM	Terminated jobs.	PD (11,0)
JSJBCT	Number of jobs.	PD (11,0)
JSPDBR	Number of synchronous database reads: Total number of physical synchronous database read operations for database functions.	PD (11,0)
JSPNDB	Number of synchronous nondatabase reads: Total number of physical synchronous nondatabase read operations for nondatabase functions.	PD (11,0)
JSPWRT	Number of writes: Total number of physical database and nondatabase write operations.	PD (11,0)
JSLDBR	Number of database reads (logical): Number of times the database module was called. This does not include I/O operations to readers/writers, or I/O operations caused by the CPYSPLF or DSPSPLF command. If SEQONLY(*YES) is specified, these numbers show each block of records read, not the number of individual records read.	PD (11,0)
JSLDBW	Number of database writes (logical): Number of times the internal database write function was called. This does not include I/O operations to readers/writers, or I/O operations caused by the CPYSPLF or DSPSPLF command. If SEQONLY(*YES) is specified, these numbers show each block of records written, not the number of individual records written.	PD (11,0)
JSLDBU	Number of miscellaneous database operations: Updates, deletes, force-end-of-data, and releases (logical.)	PD (11,0)
JSCMPT	Number of communications writes: These do not include remote workstation activity. They include only activity related to OS/400-ICF files when the I/O is for an OS/400 <sup>(R)</sup> -ICF device.	PD (11,0)
JSCMGT	Number of communications reads (logical): These do not include remote workstation activity. They include only activity related to OS/400-ICF files when the I/O is for an OS/400-ICF device.	PD (11,0)
JSBRG	Reserved	PD (11,0)
JSPRG	Reserved	PD (11,0)
JSNDW	Number of synchronous nondatabase writes: Total number of synchronous physical nondatabase write operations for nondatabase functions.	PD (11,0)
JSDBW	Number of synchronous database writes: Total number of synchronous physical database write operations for database functions.	PD (11,0)
JSANDW	Number of asynchronous nondatabase writes: Total number of asynchronous physical nondatabase write operations for nondatabase functions.	PD (11,0)
JSADBW	Number of asynchronous database writes: Total number of asynchronous physical database write operations for database functions.	PD (11,0)
JSANDR	Number of asynchronous nondatabase reads: Total number of asynchronous physical nondatabase read operations for nondatabase functions.	PD (11,0)
JSADBR	Number of asynchronous database reads: Total number of asynchronous physical database read operations for database functions.	PD (11,0)
JSPW	Number of synchronous permanent writes.	PD (11,0)

Field Name	Description	Attribute
JSCS	Reserved	PD (11,0)
JSPAGF	Number of PAG faults. Total number of times the program access group (PAG) was referred to, but was not in main storage. The Licensed Internal Code no longer uses process access groups for caching data. Because of this implementation, this field will always be 0 for more current releases.	PD (11,0)
JSEAO	Reserved	PD (11,0)
JSOBIN	Number of binary overflows.	PD (11,0)
JSODEC	Number of decimal overflows.	PD (11,0)
JSOFLP	Number of floating point overflows.	PD (11,0)
JSIPF	Number of times a page fault occurred on an address that was currently part of an auxiliary storage I/O operation.	PD (11,0)
JSWIO	Number of times the process explicitly waited for outstanding asynchronous I/O operations to complete.	PD (11,0)
JSSKSC	Number of socket sends.	PD (11,0)
JSSKBS	Number of socket bytes sent.	PD (11,0)
JSSKRC	Number of socket receives.	PD (11,0)
JSSKBR	Number of socket bytes received.	PD (11,0)
JSXRFR	Stream file reads.	PD (11,0)
JSXRFW	Stream file writes.	PD (11,0)
JSXSLR	File system symbolic link reads.	PD (11,0)
JSXDYR	File system directory reads.	PD (11,0)
JSDLCH	File system directory lookup cache hits.	PD (11,0)
JSDLCM	File system lookup cache misses.	PD (11,0)
JSSZWT	Total seize wait time in milliseconds.	PD (11,0)

## Performance data files: QAPMLAPD

This data includes integrated services digital network LAPD file entries and lists the fields in the LAPD file. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name.	C(10)
LDIOP	Reserved.	C(1)
LDTYPE	The resource type of the IOP or adapter represented by this record.	C (4)
LDNWI	Network interface: The name of the network interface description.	C (10)
LDLSP	Link speed: The speed of this channel in bits per second.	PD (11,0)
LDPRCL	Protocol type: D for LAPD.	C (1)

Field Name	Description	Attribute
LPLOFA	Loss of frame alignment: Total number of times when a time period equivalent to two 48-bit frames has elapsed without having detected valid pairs of line code violations.	PD (11,0)
LPLECV	Reserved.	PD (11,0)
LPDTSI	Reserved.	PD (11,0)
LPDTSO	Reserved.	PD (11,0)
LPFECV	Reserved.	PD (11,0)
LPES	Errored seconds: Total number of seconds that had one or more path coding violations, one or more out of frame defects, one or more controlled slip events, or a detected alarm indication signal defect.	PD (5,0)
LPSES	Severely errored seconds: Total number of seconds that had 320 or more path coding violation error events, one or more out of frame defects, or a detected alarm indication signal event. <ul style="list-style-type: none"> <li>• For ESF signals, the number of seconds that had 320 or more path coding violation error events, one or more out of frame defects, or a detected alarm indication signal defect.</li> <li>• For E1-CRC signals, the number of seconds that had 832 or more path coding violation error events or one or more out of frame defects.</li> <li>• For E1-noCRC signals, the number of seconds that had 2048 or more line coding violations.</li> <li>• For D4 signals, the number of seconds that had framing error events, an out of frame defect, or 1544 or more line coding violations.</li> </ul>	PD (5,0)
LPCOL	Collision detect: The number of times the TE detected that its transmitted frame had been corrupted by another TE attempting to use the same bus.	PD (11,0)
LLCRCE	Receive CRC errors: The number of received frames that contain a CRC (cycle redundancy check) error.	PD (11,0)
LLSFE	Short frame errors: The number of short frames received. A short frame is a frame that has fewer octets between its start flag and end flag than is permitted.	PD (11,0)
LLORUN	Receive overrun: The number of times the ISDN subsystem could not keep pace with incoming data because of local controller overload.	PD (11,0)
LLURUN	Transmit underrun: The number of times the ISDN subsystem could not keep pace with outgoing data because of local controller overload.	PD (11,0)
LLABRT	Aborts received: The number of frames received that contained HDLC abort indicators.	PD (11,0)
LLFRIE	Frames received in error: The sum of receive cycle redundancy check (CRC) errors, short frame errors, receive overrun, transmit underrun, aborts received, and frame sequence errors (LLCRCE, LLSFE, LLORUN, LLURUN, LLABRT, LSSEQE).	PD (11,0)
LSFRT	Retransmitted frames.	PD (11,0)
LSSEQE	Sequence errors: The number of received frames that contained sequence numbers indicating frames were lost.	PD (11,0)
LSFTRN	Total number of frames transmitted: This includes information (I), unnumbered information (UI), and supervisory (S) frames sent to a remote link station. This includes frames retransmitted and frames sent on transmissions stopped by transmit underrun, in addition to successful transmissions.	PD (11,0)
LSFRCV	Total number of frames received: This includes information (I), unnumbered information (UI), and supervisory (S) frames received from the remote link station. This includes no errors.	PD (11,0)

Field Name	Description	Attribute
LSBTRN	Total bytes transmitted: The total number of bytes transmitted to a remote link station. This includes bytes retransmitted and bytes sent on transmissions stopped by a transmit underrun, in addition to successful transmissions.	PD (11,0)
LSBRCV	Total bytes received: The total number of bytes received from the remote link station. This includes no errors.	PD (11,0)
LQTOC	Total outgoing calls: The number of outgoing call attempts. For X.31 this includes outgoing SETUP messages requesting a packet switched connection. For Q.932, outgoing REGISTER messages are not included in this count.	PD (11,0)
LQROC	Retry for outgoing calls: The number of outgoing calls that were rejected by the network. For X.31 this includes retry for outgoing SETUP messages requesting a packet switched connection. For Q.932, retry for outgoing REGISTER messages are not included in this count.	PD (11,0)
LQTIC	Total incoming calls: The number of incoming call attempts. For X.31 this includes incoming SETUP messages requesting a packet switched connection. For Q.932, incoming REGISTER messages are not included in this count.	PD (11,0)
LQRIC	Rejected incoming calls: The number of incoming calls that are rejected by the TE. For passive bus, the call may be intended for another TE that shares the same passive bus. This includes calls rejected both directly by the IOP and by the IOM. For X.31 this includes rejected incoming SETUP messages requesting a packet switched connection. For Q.932, rejected incoming REGISTER messages are not included in this count.	PD (11,0)
LDCHLS1	S1 maintenance channel: Set to one if the S1 maintenance channel was active.	PD (1,0)
LPLES	Line errored seconds: The number of seconds that had one or more line coding violations.	PD (5,0)
LPCSS	Controlled slip seconds: The number of seconds that had one or more controlled slip events.	PD (5,0)
LPBES	Bursty errored seconds (error second type B): The number of seconds that had greater than one but fewer than 320 path coding violation error events, no severely errored frame defects, and no detected incoming alarm indication signal defects.	PD (5,0)
LPSEFS	Severely errored framing seconds: The number of seconds that had one or more out of frame defects or a detected alarm indication signal defect.	PD (5,0)
LPDM	Degraded minutes: The number of minutes during which the estimated error rate exceeds 1E-6 but does not exceed 1E-3.	PD (5,0)
LPUS	Unavailable seconds: The number of seconds during which the interface is unavailable.	PD (5,0)

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## Performance data files: QAPMLIOP

This data includes twinaxial IOP data file entries and lists the fields in the twinaxial IOP data file. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name.	C(10)

Field Name	Description	Attribute
LIIOP	Reserved	C (1)
LITYPE	IOP type.	C (4)
LIRIDC	Resource ID of controller: Field cannot be displayed.	C (8)
LITPKT	Total packets transferred.	PD (11,0)
LIKBYO	Total KB transmitted from the IOP to the system across the bus.	PD (11,0)
LIKBYI	Total KB transmitted to the IOP from the system across the bus.	PD (11,0)
LIOPSR	OPSTART bus unit message received from another bus unit using normal flow.	PD (11,0)
LIOPSS	OPSTART bus unit message received from another bus unit using reverse flow method 2.	PD (11,0)
LISGLR	Signal bus unit message received from another bus unit.	PD (11,0)
LIOPST	OPSTARTS sent to another bus unit using reverse flow method 2.	PD (11,0)
LISGLS	Signals sent to another bus unit.	PD (11,0)
LIRSTQ	Restart queues bus unit message sent to another bus unit.	PD (11,0)
LIRQDO	DMA requests sent for output of data: The number of requests the IOP sends to the system for data to be sent from the IOP to the system across the bus.	PD (11,0)
LIRQDI	DMA requests sent for input of data: The number of requests the IOP sends to the system for data to be sent to the IOP from the system across the bus.	PD (11,0)
LIBNAR	Occurrences of BNA received.	PD (11,0)
LIOQC	Wait-on-I/O queue count: The number of I/O requests on the wait-on-I/O queue at sample time. The wait-on-I/O queue holds I/O requests that are being processed or waiting to be processed.	PD (11,0)
LISQC	Suspend queue count: The number of elements on the suspend queue at sample time.	PD (11,0)
LIAQC	Active queue count: The number of elements on the active queue at sample time. The active queue holds I/O requests that were sent from the host system and were not yet sent to the wait-on-I/O queue.	PD (11,0)
LITWIU	Twinaxial use count: The number of times when the wait-on-I/O queue was sampled and the count was not zero (I/O in progress). If this value is divided by the sample count, the result (times 100) is the percentage of time when I/O is occurring.	PD (5,0)
LISMPL	Sample count: The number of times during the snapshot interval that the various IOP queues were sampled.	PD (5,0)
LIIDLC	Idle counts (see notes): The number of times the workstation IOP ran an idle loop. This is done when the IOP has no work to perform. This count is used with the idle loop time.	PD (11,0)
LIIDLT	Idle loop time (times 0.01 microsecond) (see notes): The time (in hundredths of microseconds) to run the idle loop once.	PD (11,0)

**Notes:**

The idle loop count and time are used to calculate the communications IOP utilization as follows:

1. Convert the product of the idle loop count times the idle loop time from hundredths of microseconds to seconds. Subtract this from the interval time, and divide the results by the interval time. For example:

$$\text{IOP utilization} = (\text{INTSEC} - (\text{CIIDLC} * \text{CIIDLT})/10^{**}8) / \text{INTSEC}$$

- The performance monitor reports I/O processor (IOP) statistics different beginning with Version 3 Release 7. Therefore, performance statistics for IOPs introduced in Version 3 Release 7 or later releases are reported in the QAPMMIOP file. Performance statistics are reported in the QAPMMIOP file even if the IOP supports only one of the three IOP functions (communications, disk, or local workstation). Performance statistics for IOPs that were introduced before Version 3 Release 7 will continue to be reported in the appropriate IOP file (QAPMCIOP, QAPMDIOP, QAPMLIOP, and QAPMMIOP).

## Performance data files: QAPMLPAR

» This file contains logical partition performance data that is collected if IBM<sup>(R)</sup> Director Server is installed (and the server job is running) on the partition that is running Collection Services and the \*LPAR category is selected. IBM Director Agent must be installed on the other partitions for data to be collected from them. There is one record per logical partition per collection interval. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time this data was requested by the local Collection Services job.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample as measured at the agent. This value might span multiple intervals if the agent reactivated after being inactive for a while.	PD (7,0)
DTECEN	Century digit. 0 indicates 19xx, and 1 indicates 20xx.	C (1)
LPPID	Partition identifier. This is the binary value that is consistent with the partition number in the QAPMCONF file with GKEY of PN.	B (4,0)
LPCPUU	CPU nanoseconds used. The number of processor nanoseconds that are used in this interval by all processors in this partition.	B (18,0)
LPCPUA	CPU nanoseconds available. The number of processor nanoseconds that are available in this interval for all processors in this partition. If this field is not supported by the operating system, it is 0.	B (18,0)
LPVPRC	Virtual processors. The number of virtual processors currently configured for this partition.	B (4,0)
LPPUN	Processor units. The partition capacity that is represented as the number of processor units currently allocated to this partition.	PD (5,2)
LPDTTM	Partition date and time. The local date and time for the partition in the YYYYMMDDhhmmss format.	C (14)
LPUTCO	UTC offset. The Universal Coordinated Time offset in minutes for the partition.	B (4,0)
LPCLKO	Clock offset. This field provides a way to determine the difference between the system clocks on different partitions of a single system. This field has no meaning when looked at on a stand-alone basis. However, when this value is established on two (or more) partitions of a system, the difference between these values is the time difference (in seconds) between the two partitions. If this field is not supported by the operating system, it is 0.	B (18,0)
LPOSID	Operating system identifier. The operating system that is currently running in the partition. 100=OS/400 <sup>(R)</sup> , 200=AIX <sup>(R)</sup> , and 300=Linux <sup>(TM)</sup> .	B (4,0)
LPVRM	Operating system version. This field is displayed in the format defined by the operating system. For example, OS/400 version 5 release 3 modification 0 is represented as V5R3M0.	C (11) »



## Performance data files: QAPMMIOP

This data includes multifunction IOP file entries and lists the fields in the multifunction IOP file. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name.	C(10)
MIOP	Reserved	C (1)
MITYPE	IOP type.	C (4)
MIPRCU	Processor utilization: The number of fixed-time intervals that this multifunction IOP spent in the idle state.	PD (11,0)
MIRAMU	Available local storage (in bytes): The number of bytes of free local storage in the IOP. The free local storage will probably be non-contiguous because of fragmentation.	PD (11,0)
MITPKT	Total packets transferred.	PD (11,0)
MIKBYO	Total KB transmitted from an IOP to the system across the bus.	PD (11,0)
MIKBYI	Total KB transmitted to the IOP from the system across the bus.	PD (11,0)
MIOPSR	OPSTART bus unit message received from another bus unit using normal flow.	PD (11,0)
MIO PSS	OPSTART bus unit message received from another bus unit using reverse flow method 2 (always 0).	PD (11,0)
MISGLR	Signals received.	PD (11,0)
MIO PST	OPSTARTs sent.	PD (11,0)
MISLGS	Signals sent.	PD (11,0)
MIRSTQ	Restart queues sent.	PD (11,0)
MIRQDO	DMA requests sent for output of data: The number of requests the IOP sends to the system for data to be sent from the IOP to the system across the bus.	PD (11,0)
MIRQDI	DMA requests sent for input of data: The number of requests the IOP sends to the system for data to be sent to the IOP from the system across the bus.	PD (11,0)
MIBNAR	Occurrences of BNA received.	PD (11,0)
MIIDLC	Idle loop count (see notes): The number of times the primary IOP processor ran an idle loop. This is done when the IOP has no work to perform. This count is used with the idle loop time to calculate the primary IOP processor utilization in seconds.	PD (11,0)
MIIDLT	Idle loop time (see notes): the time (in hundredths of microseconds) for the primary IOP processor to run the idle loop once. The value reported could be a multiple of the actual idle loop time. In that case, the value reported for the idle loop count is reduced by the same multiple so that the calculated IOP processor utilization is correct	PD (11,0)
MISYSF	IOP system function time: Total processing unit time (in milliseconds) used by the IOP for basic system function that is running in the primary IOP processor.	PD (11,0)
MIDISK	Disk time: Total processing unit time (in milliseconds) used by disk tasks that are running in the primary IOP processor.	PD (11,0)

Field Name	Description	Attribute
MICOMM	Total communications time: Total processing unit time (in milliseconds) used by all the communications protocol tasks that are running in the primary IOP processor.	PD (11,0)
MISDLC	SDLC communications time: Total processing unit time (in milliseconds) used by SDLC communications tasks that are running in the primary IOP processor.	PD (11,0)
MIASYN	ASYNCRON communications time: Total processing unit time (in milliseconds) used by asynchronous communications tasks that are running in the primary IOP processor.	PD (11,0)
MIBSC	BSC communications time: Total processing unit time (in milliseconds) used by BSC communications tasks that are running in the primary IOP processor.	PD (11,0)
MIX25L	X.25 LLC communications time: Total processing unit time (in milliseconds) used by X.25 LLC communications tasks that are running in the primary IOP processor.	PD (11,0)
MIX25P	X.25 PLC communications time: Total processing unit time (in milliseconds) used by X.25 packet layer communications (PLC) tasks that are running in the primary IOP processor.	PD (11,0)
MIX25D	X.25 DLC communications time: Total processing unit time (in milliseconds) used by X.25 data link control (DLC) and Point-to-Point Protocol (PPP) communications tasks that are running in the primary IOP processor.	PD (11,0)
MILAN	LAN communications time: Total processing unit time (in milliseconds) used by token-ring network, Ethernet, frame relay, fiber distributed data interface (FDDI), and asynchronous transfer mode (ATM) communications tasks. This includes processing time due to token-ring and Ethernet LAN emulation.	PD (11,0)
MISDLD	SDLC short-hold mode time: Total processing unit time (in milliseconds) used by SDLC short-hold mode tasks that are running in the primary IOP processor.	PD (11,0)
MIRV02	ISDN communications time: Total processing unit time (in milliseconds) used by ISDN LAPD, LAPE, and PMI communications tasks that are running in the primary IOP processor.	PD (11,0)
MIRV03	ISDN communications time: Total processing unit time (in milliseconds) used by ISDN Q.931 communications tasks that are running in the primary IOP processor.	PD (11,0)
MISP	Service processor time: Total processing unit time (in milliseconds) used by the service processor function that is running in the primary IOP processor.	PD (11,0)
MIF1ID	Subfunction 1 ID: The identifier for additional functions that may be running in the primary IOP processor.	C (2)
MIF1TM	Subfunction 1 time: Total processing unit time (in milliseconds) used by the IOP function that is running in the primary IOP processor	PD (11,0)
MIF2ID	Subfunction 2 ID: The identifier for additional functions that may be running in the primary IOP processor.	C (2)
MIF2TM	Subfunction 2 time: Total processing unit time (in milliseconds) used by the IOP function that is running in the primary IOP processor	PD (11,0)
MIF3ID	Subfunction 3 ID: The identifier for additional functions that may be running in the primary IOP processor.	C (2)
MIF3TM	Subfunction 3 time: Total processing unit time (in milliseconds) used by the IOP function that is running in the primary IOP processor.	PD (11,0)
MIF4ID	Subfunction 4 ID: The identifier for additional functions that may be running in the primary IOP processor.	C(2)
MIF4TM	Subfunction 4 time: Total processing unit time (in milliseconds) used by the IOP function that is running in the primary IOP processor.	PD (11,0)

Field Name	Description	Attribute
MIF5ID	Subfunction 5 ID: The identifier for additional functions that are running in the primary IOP processor.	C(2)
MIF5TM	Subfunction 5 time in milliseconds used by the IOP function that is running in the primary IOP processor.	PD (11,0)
MITWNX	Total processing unit time (in milliseconds) used by workstation and local twinaxial tasks that are running in the primary IOP processor.	PD (11,0)
MICPU2	Processor 2 utilization: The utilization (in milliseconds) of the second IOP processor that handles specialized function. This field applies to Integrated xSeries <sup>(TM)</sup> Servers (excluding I/O adapter versions) and is zero for other IOPs. Collection Services will not report values for Integrated xSeries Servers.	PD (11,0)
MIADP	Reserved.	PD (11,0)
MIOTH	Other function time: Total processing unit time (in milliseconds) used by other IOP functions that are running in the primary IOP processor. Other functions include those that cannot be reported in the subfunction 1-5 ID fields because all of the subfunction 1-5 ID fields are in use.	PD (11,0)
MIINT	Interrupt level time: Total processing unit time (in milliseconds) used by interrupt level processing that is running in the primary IOP processor. This does not include interrupt level processing time that can be associated with a particular task.	PD (11,0)
MIRA	Remote access time: Total processing unit time (in milliseconds) used by the remote access tasks that are running in the primary IOP processor.	PD (11,0)

**Note:**

The idle loop count and time are used to calculate the multifunction IOP utilization as follows:

1. Convert the product of the idle loop count times the idle loop time from hundredths of microseconds to seconds. Subtract this from the interval time, and divide the results by the interval time. For example:

$$\text{IOP utilization} = (\text{INTSEC} - (\text{MIIDLE} * \text{MIIDLT}) / 10 * 8) / \text{INTSEC}$$

2. The performance monitor reports I/O processor (IOP) statistics different beginning with Version 3 Release 7. Therefore, performance statistics for IOPs introduced in Version 3 Release 7 or later releases are reported in the QAPMMIOP file. Performance statistics are reported in the QAPMMIOP file even if the IOP supports only one of the three IOP functions (communications, disk, or local workstation). Performance statistics for IOPs that were introduced before Version 3 Release 7 will continue to be reported in the appropriate IOP file (QAPMCIO, QAPMDIOP, QAPMLIOP, and QAPMMIOP).
3. The function 1 - 5 identifiers are for additional functions that may be running in the primary IOP. Each function identifier has an associated function time value. The function identifier may have the following value:

Value	Description
00	No time value supplied.
11	Integrated xSeries Server pipe task (Integrated xSeries Server was previously known as file server I/O processor and FSIO)
20	Storage subsystem task
22	Tape task
23	Diskette task
24	Optical task

30	Communications subsystem task
42	Localtalk task
43	Wireless task
60	Cryptography task

## Performance data files: QAPMPOOL and QAPMPOOLL

The QAPMPOOLL file is provided to allow for compatibility between Collection Services and the performance monitor. The QAPMPOOL file is created when the performance monitor database files are migrated with the Convert Performance Data (CVTPFRDTA) command to a newer release. Collection Services does not create the QAPMPOOL file. Rather, Collection Services creates the QAPMPOOLL file.


This data includes main storage pool file entries and lists the fields in the storage pool file. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command	PD (5,0)
DTETIM	Interval date (yyymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
PONBR	Pool number: Specifies the unique identifier of this pool. The value is from 1 to 64.	C (2)
POACTL	Pool activity level setting: The maximum number of processes that can be active in the machine at the same time.	PD (5,0)
POSIZ	Pool size (in KB): The amount of main storage assigned to the pool.	PD (9,0)
PORES	Pool reserved size (in KB): Specifies the amount of storage from the pool that is dedicated to machine functions.	» PD (9,0) «
PODBF	Pool database faults: Total number of interruptions to processes (not necessarily assigned to this pool) that were required to transfer data into the pool to permit the MI instruction to process the database function.	PD (11,0)
PONDBF	Pool nondatabase faults: Total number of interruptions to processes (not necessarily assigned to this pool) that were required to transfer data into the pool to permit the MI instruction to process nondatabase functions.	PD (11,0)
PODBPG	Pool database pages read: Total number of pages of database data transferred from auxiliary storage to the pool to permit the instruction to run as a consequence of set access state, implicit access group movement, and internal machine actions.	PD (11,0)
PONDPG	Pool nondatabase pages read: Total number of pages of database data transferred from auxiliary storage to the pool to permit the instruction to run as a consequence of set access state, implicit access group movement, and internal machine actions.	PD (11,0)
POAW	Number of active to wait transitions: Total number of transitions by processes assigned to this pool from active state to wait state.	PD (11,0)
POWI	Number of wait to ineligible: Total number of transitions by processes assigned to this pool from wait state to ineligible state.	PD (11,0)
POAI	Number of active to ineligible: Total number of transitions by processes assigned to this pool from active state to ineligible state.	PD (11,0)

Field Name	Description	Attribute
PTTYPE	Type of tuning: The method used by the system to tune the storage pool: <ul style="list-style-type: none"> <li>• 0 — No tuning</li> <li>• 1 — Static tuning</li> <li>• 2 — Dynamic tuning of transfers into main storage</li> <li>• 3 — Dynamic tuning of transfers into main storage and to auxiliary storage.</li> </ul>	C (1)
PTPAGE	Change page handling. The method used by the system to determine when to write changed pages to auxiliary storage: <ul style="list-style-type: none"> <li>• 0 — Use the system default</li> <li>• 1 — Periodically transfer changed pages to auxiliary storage.</li> </ul>	C (1)
PTNDBF	Non-database blocking factor. The amount of data (in KB) that should be brought into main storage when a request is made to read non-database objects from auxiliary storage.	PD (3,0)
PTDBF1	Database blocking factor (class 1.) The amount of data (in KB) that should be brought into main storage when a request is made to read database objects from auxiliary storage.	PD (3,0)
PTDEX1	Database exchange operation type (class 1.) The exchange operation used to reduce the working set size. <ul style="list-style-type: none"> <li>• 0 — Use the system default</li> <li>• 1 — Allow exchange operations</li> <li>• 2 — Disable exchange operations</li> <li>• 3 — Disable exchange operations.</li> </ul> <p>The data that already exists in main storage should be a good candidate to be replaced when additional storage is needed in the storage pool.</p>	C (1)
PTDTS1	Database type of transfer to auxiliary storage (class 1.) The method the system uses to process a request to write an object to auxiliary storage. <ul style="list-style-type: none"> <li>• 0 — Use the system default</li> <li>• 1 — Purge object from main storage</li> <li>• 2 — Write object to auxiliary storage</li> <li>• 3 — Indicate object is a good candidate for replacement</li> <li>• 4 — Use the system page replacement algorithm.</li> </ul>	C (1)
PTDBF2	Database blocking factor (class 2.) See PTDBF1.	PD (3,0)
PTDEX2	Database allow exchange operations (class 2.) See PTDEX1.	C (1)
PTDTS2	Database type of transfer to auxiliary storage (class 2.) See PTDTS1.	C (1)
PTDBF3	Database blocking factor (class 3.) See PTDBF1.	PD (3,0)
PTDEX3	Database allow exchange operations (class 3.) See PTDEX1.	C (1)
PTDTS3	Database type of transfer to auxiliary storage (class 3.) See PTDTS1.	C (1)
PTDBF4	Database blocking factor (class 4.) See PTDBF1.	PD (3,0)
PTDEX4	Database allow exchange operations (class 4.) See PTDEX1.	C (1)
PTDTS4	Database type of transfer to auxiliary storage (class 4.) See PTDTS1.	C (1)

**Note:**

For more information on pool tuning, see "Setting Up the System to Dynamically Adjust a Storage Pool


for an Object (Expert Cache)" in the V4R4 Work Management  book (SC41-5306-03) on the V5R1 Supplemental Manuals Web site. You may also refer to the Work Management topic for new information about work management concepts and strategies.

## Performance data files: QAPMPOOLB

This data includes main storage pool file entries and lists the counters for system storage pools. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
DTECEN	Century digit.	C (1)
PONBR	Pool number: Specifies the unique identifier of this pool. The value is from 1 to 64.	C (3)
POACTL	Pool activity level setting: The maximum number of processes that can be active in the machine at the same time.	PD (5,0)
POSIZ	Pool size (in KB): The amount of main storage assigned to the pool.	PD (9,0)
PORES	Pool reserved size (in KB): Specifies the amount of storage from the pool that is dedicated to machine functions.	PD (9,0)
PODBF	Pool database faults: Total number of interruptions to processes (not necessarily assigned to this pool) that were required to transfer data into the pool to permit the MI instruction to process the database function.	PD (11,0)
PONDBF	Pool nondatabase faults: Total number of interruptions to processes (not necessarily assigned to this pool) that were required to transfer data into the pool to permit the MI instruction to process nondatabase functions.	PD (11,0)
PODBPG	Pool database pages read: Total number of pages of database data transferred from auxiliary storage to the pool to permit the instruction to run as a consequence of set access state, implicit access group movement, and internal machine actions.	PD (11,0)
PONDPG	Pool nondatabase pages read: Total number of pages of database data transferred from auxiliary storage to the pool to permit the instruction to run as a consequence of set access state, implicit access group movement, and internal machine actions.	PD (11,0)
POAW	Number of active to wait transitions: Total number of transitions by processes assigned to this pool from active state to wait state.	PD (11,0)
POWI	Number of wait to ineligible: Total number of transitions by processes assigned to this pool from wait state to ineligible state.	PD (11,0)
POAI	Number of active to ineligible: Total number of transitions by processes assigned to this pool from active state to ineligible state.	PD (11,0)

### Note:

For more information on pool tuning, see “Setting Up the System to Dynamically Adjust a Storage Pool for an Object (Expert Cache)” in the V4R4 Work Management  book (SC41-5306-03) on the V5R1 Supplemental Manuals Web site. You may also refer to the Work Management topic for new information about work management concepts and strategies.


## Performance data files: QAPMPOOLT

This data includes main storage pool file entries and lists the tuning information for the storage pools. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
DTECEN	Century digit.	C (1)
PONBR	Pool number: Specifies the unique identifier of this pool. The value is from 1 to 64.	C (3)
PTTYPE	Type of tuning: The method used by the system to tune the storage pool: <ul style="list-style-type: none"> <li>• 0 — No tuning</li> <li>• 1 — Static tuning</li> <li>• 2 — Dynamic tuning of transfers into main storage</li> <li>• 3 — Dynamic tuning of transfers into main storage and to auxiliary storage.</li> </ul>	C (1)
PTPAGE	Change page handling. The method used by the system to determine when to write changed pages to auxiliary storage: <ul style="list-style-type: none"> <li>• 0 — Use the system default</li> <li>• 1 — Periodically transfer changed pages to auxiliary storage.</li> </ul>	C (1)
PTNDBF	Non-database blocking factor. The amount of data (in KB) that should be brought into main storage when a request is made to read non-database objects from auxiliary storage.	PD (3,0)
PTDBF1	Database blocking factor (class 1.) The amount of data (in KB) that should be brought into main storage when a request is made to read database objects from auxiliary storage.	PD (3,0)
PTDEX1	Database exchange operation type (class 1.) The exchange operation used to reduce the working set size. <ul style="list-style-type: none"> <li>• 0 — Use the system default</li> <li>• 1 — Allow exchange operations</li> <li>• 2 — Disable exchange operations</li> <li>• 3 — Disable exchange operations.</li> </ul> <p>The data that already exists in main storage should be a good candidate to be replaced when additional storage is needed in the storage pool.</p>	C (1)
PTDTS1	Database type of transfer to auxiliary storage (class 1.) The method the system uses to process a request to write an object to auxiliary storage. <ul style="list-style-type: none"> <li>• 0 — Use the system default</li> <li>• 1 — Purge object from main storage</li> <li>• 2 — Write object to auxiliary storage</li> <li>• 3 — Indicate object is a good candidate for replacement</li> <li>• 4 — Use the system page replacement algorithm.</li> </ul>	C (1)
PTDBF2	Database blocking factor (class 2.) See PTDBF1.	PD (3,0)
PTDEX2	Database allow exchange operations (class 2.) See PTDEX1.	C (1)
PTDTS2	Database type of transfer to auxiliary storage (class 2.) See PTDTS1.	C (1)
PTDBF3	Database blocking factor (class 3.) See PTDBF1.	PD (3,0)

Field Name	Description	Attribute
PTDEX3	Database allow exchange operations (class 3.) See PTDEX1.	C (1)
PTDTS3	Database type of transfer to auxiliary storage (class 3.) See PTDTS1.	C (1)
PTDBF4	Database blocking factor (class 4.) See PTDBF1.	PD (3,0)
PTDEX4	Database allow exchange operations (class 4.) See PTDEX1.	C (1)
PTDTS4	Database type of transfer to auxiliary storage (class 4.) See PTDTS1.	C (1)

**Note:**

For more information on pool tuning, see "Setting Up the System to Dynamically Adjust a Storage Pool for an Object (Expert Cache)" in the V4R4 Work Management  book (SC41-5306-03) on the V5R1 Supplemental Manuals Web site. You may also refer to the Work Management topic for new information about work management concepts and strategies.

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## Performance data files: QAPMPPP

This data includes the fields in the Point-to-Point Protocol (PPP) file. For information about how Collection Services generates this file and where the data comes from, refer to "Performance data files: Collection Services system category and file relationships" on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
DTECEN	Century digit: where 0 indicates 19XX and 1 indicates 20XX.	C (1)
IOPRN	IOP resource name	C (10)
PPTYPE	The resource type of the IOP or adapter represented by this record.	C (4)
PPLND	Line description: The name of the description for this line.	C (10)
PPLSP	Line speed: The speed of the line in bits per second (bps).	BIN (18,0)
PPRCL	Protocol type: P for PPP.	C (1)
PPBTRN	Bytes transmitted: The number of bytes transmitted including bytes transmitted again.	BIN (18,0)
PPBRCV	Bytes received: The number of bytes received including all bytes in frames that had any kind of error.	BIN (18,0)
PPFTRN	Frames transmitted: The number of frames transmitted.	BIN (18,0)
PPEFFR	Error-free frames received: The number of frames received without errors.	BIN (18,0)
PPFRIE	Frames received in error: The number of frames received with one of the following errors: a frame check sequence error, an abnormal end, a receive overrun, or a frame truncated error.	BIN (9,0)
PPIFR	Invalid frames received: The number of frames received with a residue error (frame is not on a byte boundary).	BIN (9,0)



## Performance data files: QAPMRESP

This data includes local workstation response time file entries and contains transaction information based on data collected within the local workstation controller. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yyymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name.	C(10)
LRIOP	Reserved.	C (1)
LRBKT1	Transactions in first response time monitor bracket: The number of transactions from 0 up to and including n seconds for this workstation during the snapshot interval. The n value is the response time monitor 1 bracket upper limit, and is specified on the Advanced Local Response Time Options dialog from the Collection Services properties page within the iSeries <sup>(TM)</sup> Navigator interface. A transaction is defined as the time from when the keyboard locked because the Enter key or a function key was pressed to the time when the keyboard unlocked because the display was refreshed	PD (7,0)
LRBKT2	Transactions in second response time monitor bracket: The number of transactions greater than the response time monitor 1 and up to and including response time monitor 2 limit.	PD (7,0)
LRBKT3	Transactions in third response time monitor bracket: The number of transactions greater than the response time monitor 2 and up to and including response time monitor 3 limit.	PD (7,0)
LRBKT4	Transactions in fourth response time monitor bracket: The number of transactions greater than the response time monitor 3 and up to and including response time monitor 4 limit.	PD (7,0)
LRBKT5	Transactions in fifth response time monitor bracket: The number of transactions above (longer) than the response time monitor 4 limit.	PD (7,0)
LRPORT	Workstation port number.	PD (3,0)
LRSTN	Workstation number.	PD (3,0)
LRTRNS	The total of all the individual times for all exchanges measured and reported by this record including overflows (LRBKT5). The total time in seconds for all transactions.	PD (7,0)
LRCUD	Controller description name.	C (10)

## Performance data files: QAPMRWS

The QAPMRWS file is created when the performance monitor database files are migrated with the Convert Performance Data (CVTPFRDTA) command to a newer release. Collection Services does not create this file. This data includes remote workstation response time file entries and contains transaction information based on data collected within the remote workstation controller.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)

Field Name	Description	Attribute
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds during which these transactions occurred.	PD (7,0)
IOPRN	IOP resource name.	C (10)
RWIOP	Reserved	C (1)
RWBKT1	Transactions in first response time monitor bracket: The number of transactions greater than 0 up to and including n seconds for this workstation during the snapshot interval. The n value is the upper limit for the first response time monitor bracket, and is specified on the Advanced Local Response Time Options dialog from the Collection Services properties page within the iSeries <sup>(TM)</sup> Navigator interface. A transaction is defined as the time from when the keyboard locked because the Enter key or a function key was pressed to the time the keyboard is unlocked because the display was refreshed.	PD (7,0)
RWBKT2	Transactions in second response time monitor bracket: The number of transactions greater than the response time monitor 1 and up to and including response time monitor 2 limit.	PD (7,0)
RWBKT3	Transactions in third response time monitor bracket: The number of transactions greater than the response time monitor 2 and up to and including the response time monitor 3 limit.	PD (7,0)
RWBKT4	Transactions in fourth response time monitor bracket: The number of transactions greater than the response time monitor 3 and up to and including the response time monitor 4 limit.	PD (7,0)
RWBKT5	Transactions in fifth response time monitor bracket: The number of transactions longer than the limit for the response time monitor 4.	PD (7,0)
RWTRNS	The total of all the individual times for all exchanges measured and reported by this record including overflows (RWBKT5). The total time in seconds for all transactions.	PD (7,0)
RWPORT	Workstation port number.	PD (3,0)
RWSTN	Workstation number for this port.	PD (3,0)
RWCUD	Controller description: The name of the controller this workstation is attached to.	C (10)
RWLND	Line description: Name of the communications line this workstation and its controller are attached to.	C (10)

## Performance data files: QAPMSAP

This data contains service access point (SAP) file entries and lists the fields in the SAP file. SAP statistics are reported for active TRLAN, Ethernet, DDI, and frame relay line descriptions associated with TRLAN, Ethernet, DDI and Frame Relay ports, respectively. SAP statistics are also reported for ATM ports that support token-ring and Ethernet LAN emulation. For information about how Collection Services generates this file and where the data comes from, refer to "Performance data files: Collection Services system category and file relationships" on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)

Field Name	Description	Attribute
IOPRN	IOP resource name.	C(10)
SCIOPI	Reserved	C (1)
SCTYPE	The resource type of the IOP or adapter represented by this record.	C (4)
SCSSAP	SSAP ID: The source SAP (SSAP) ID.	C (2)
SCLND	Line description: The name of the description for the line containing the SAP listed above. For frame relay, this is the network interface (NWI) description.	C (10)
SCLSPD	Line speed: The speed of the line in bits per second (bps). For some lines, this value might change as time progresses.	PD (11,0)
SCIRCV	UI frames received: Total number of UI frames received at this SSAP.	PD (11,0)
SCIXMT	UI frames transmitted: Total number of UI frames transmitted through this SSAP.	PD (11,0)
SCBRCV	UI bytes received: Total number of bytes received at this SSAP contained within a UI frame.	PD (11,0)
SCBXMT	UI bytes transmitted: Total number of bytes transmitted through this SSAP contained within a UI frame.	PD (11,0)
SCIDSC	Number of UI frames received and discarded by this SSAP.	PD (11,0)
SCPRCL	Protocol types: <ul style="list-style-type: none"> <li>• E:Token-Ring</li> <li>• F:DDI</li> <li>• T:Ethernet</li> <li>• Y:Frame Relay</li> </ul>	C (1)

## Performance data files: QAPMSNA

This table defines the fields in the Systems Network Architecture (SNA) file record. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
SCTLNM	Controller description name.	C (10)
SLINNM	Line description name.	C (10)
STSKNM	T2 station I/O manager (SIOM) task name.	C (6)
SLIOMT	Line I/O manager task name.	C (6)
SACPNM	Adjacent control point (CP) name.	C (8)
SANWID	Adjacent network ID.	C (8)
SAPPN	APPN-capable (Y=yes, N=no).	C (1)
SCTYP	Controller type (A=APPC, H=Host).	C (1)
SSMFS	Send maximum frame size.	PD (11,0)
SRMFS	Receive maximum frame size.	PD (11,0)

Field Name	Description	Attribute
STLLBU	Date (yymmdd) and time (hhmmss) when most recent connection was established with the adjacent system.	C (12)
SNLBU	Number of times a connection has been established with the remote system.	PD (11,0)
STACVO	Cumulative elapsed time for automatically created and/or varied-on devices.	PD (11,0)
SNACVO	Number of automatically created and/or varied-on devices.	PD (11,0)
SNADD	Number of automatically deleted devices.	PD (11,0)
SNWAIN	Number of work activities coming in from other T2 SIOM tasks (for example, messages received).	PD (11,0)
SNWAOU	Number of work activities sent out to other T2 SIOM tasks (for example, messages received).	PD (11,0)
<b>The following fields refer to end point session attributes:</b>		
ENNSS	Number of network priority sessions started.	PD (11,0)
ENNSE	Number of network priority sessions ended.	PD (11,0)
ENNB	Number of request units with begin bracket sent and received for all network priority sessions.	PD (11,0)
ENNEB	Number of request units with end bracket sent and received for all network priority sessions.	PD (11,0)
ENSPWT	The cumulative wait time for all network priority sessions (in milliseconds) caused by session-level send messages. This wait time measures the amount of time application data was blocked (could not be sent) waiting for a pacing response to be received from the adjacent system.	PD (11,0)
ENSPNW	Number of waits occurring for all network priority sessions for session-level send pacing. That is, the number of times application data was blocked (could not be sent) waiting for a pacing response to be received from the adjacent system.	PD (11,0)
ENSPPW	Number of potential waits occurring for all network priority sessions for session-level send pacing. This is the worst case that would occur if the sending of application data was delayed waiting for every pacing response sent by the adjacent system.	PD (11,0)
ENSPWS	The cumulative window size for all network priority sessions for session-level send pacing. Each time a pacing response is received from the adjacent system on a network priority session, this count is increased by window size specified by the pacing response.	PD (11,0)
ENIPWT	The cumulative wait time for all network priority sessions (in milliseconds) for internal session-level pacing. That is, the number of times application data was blocked (could not be sent) waiting for data to be delivered to the adjacent system.	PD (11,0)
ENIPNW	Number of waits occurring for all network priority sessions for internal session-level pacing. That is, the number of times application data was blocked (could not be sent) waiting for data to be delivered to the adjacent system.	PD (11,0)
ENQNRE	Number of network priority request/response units entering the transmission priority queue.	PD (11,0)
ENQLRE	Length of network priority request/response units entering the transmission priority queue.	PD (11,0)
ENQNRL	Number of network priority request/response units leaving the transmission priority queue.	PD (11,0)
ENQLRL	Length of network priority request/response units leaving the transmission priority queue.	PD (11,0)
ENQTRR	Cumulative wait time in network transmission priority queue.	PD (11,0)

Field Name	Description	Attribute
ENNRUD	Number of network priority request/response units delivered to the adjacent system.	PD (11,0)
ENLRUD	Length of network priority request/response units delivered to the adjacent system.	PD (11,0)
ENTRUD	Cumulative service time to deliver a network priority request/response unit to the adjacent system.	PD (11,0)
ENNRUR	Number of network priority request/response units received from the adjacent system.	PD (11,0)
ENLRUR	Length of network priority request/response units received from the adjacent system.	PD (11,0)
EHNSS	Number of high priority sessions started	PD (11,0)
EHNSE	Number of high priority sessions ended	PD (11,0)
EHNB	Number of request units with begin bracket sent and received for all high priority sessions	PD (11,0)
EHNEB	Number of request units with end bracket sent and received for all high priority sessions	PD (11,0)
EHSPT	The cumulative wait time for all high priority sessions (in milliseconds) caused by session-level send messages. This wait time measures the amount of time application data was blocked (could not be sent) waiting for a pacing response to be received from the adjacent system.	PD (11,0)
EHSPTW	Number of waits occurring for all high priority sessions for session-level send pacing. That is, the number of times application data was blocked (could not be sent) waiting for a pacing response to be received from the adjacent system.	PD (11,0)
EHSPPW	Number of potential waits occurring for all high priority sessions for session-level send pacing. This is the worst case that would occur if the sending of application data was delayed waiting for every pacing response sent by the adjacent system.	PD (11,0)
EHSPTS	The cumulative window size for all high priority sessions for session-level send pacing. Each time a pacing response is received from the adjacent system on a network priority session, this count is increased by window size specified by the pacing response.	PD (11,0)
EHIPWT	The cumulative wait time for all high priority sessions (in milliseconds) for internal session-level pacing. That is, the number of times application data was blocked (could not be sent) waiting for data to be delivered to the adjacent system.	PD (11,0)
EHIPNW	Number of waits occurring for all high priority sessions for internal session-level pacing. That is, the number of times application data was blocked (could not be sent) waiting for data to be delivered to the adjacent system.	PD (11,0)
EHQRE	Number of high priority request/response units entering the transmission priority queue.	PD (11,0)
EHQLRE	Length of high priority request/response units entering the transmission priority queue.	PD (11,0)
EHQRL	Number of high priority request/response units leaving the transmission priority queue.	PD (11,0)
EHQLRL	Length of high priority request/response units leaving the transmission priority queue.	PD (11,0)
EHQTR	Cumulative wait time in high transmission priority queue.	PD (11,0)
EHRUD	Number of high priority request/response units delivered to the adjacent system.	PD (11,0)

Field Name	Description	Attribute
EHLRUD	Length of high priority request/response units delivered to the adjacent system.	PD (11,0)
EHTRUD	Cumulative service time to deliver a high priority request/response unit to the adjacent system.	PD (11,0)
EHNRRUR	Number of high priority request/response units received from the adjacent system.	PD (11,0)
EHLRUR	Length of high priority request/response units received from the adjacent system.	PD (11,0)
EMNSS	Number of medium priority sessions started	PD (11,0)
EMNSE	Number of medium priority sessions ended	PD (11,0)
EMNBB	Number of request units with begin bracket sent and received for all medium priority sessions	PD (11,0)
EMNEB	Number of request units with end bracket sent and received for all medium priority sessions	PD (11,0)
EMSPWT	The cumulative wait time for all medium priority sessions (in milliseconds) caused by session-level send messages. This wait time measures the amount of time application data was blocked (could not be sent) waiting for a pacing response to be received from the adjacent system	PD (11,0)
EMSPNW	Number of waits occurring for all medium priority sessions for session-level send pacing. That is, the number of times application data was blocked (could not be sent) waiting for a pacing response to be received from the adjacent system.	PD (11,0)
EMSPPW	Number of potential waits occurring for all medium priority sessions for session-level send pacing. This is the worst case that would occur if the sending of application data was delayed waiting for every pacing response sent by the adjacent system.	PD (11,0)
EMSPWS	The cumulative window size for all medium priority sessions for session-level send pacing. Each time a pacing response is received from the adjacent system on a network priority session, this count is increased by window size specified by the pacing response.	PD (11,0)
EMIPWT	The cumulative wait time for all medium priority sessions (in milliseconds) for internal session-level pacing. That is, the number of times application data was blocked (could not be sent) waiting for data to be delivered to the adjacent system.	PD (11,0)
EMIPNW	Number of waits occurring for all medium priority sessions for internal session-level pacing. That is, the number of times application data was blocked (could not be sent) waiting for data to be delivered to the adjacent system.	PD (11,0)
EMQNRE	Number of medium priority request/response units entering the transmission priority queue.	PD (11,0)
EMQLRE	Length of medium priority request/response units entering the transmission priority queue.	PD (11,0)
EMQNRL	Number of medium priority request/response units leaving the transmission priority queue.	PD (11,0)
EMQLRL	Length of medium priority request/response units leaving the transmission priority queue.	PD (11,0)
EMQTRR	Cumulative wait time in medium transmission priority queue.	PD (11,0)
EMNRUD	Number of medium priority request/response units delivered to the adjacent system.	PD (11,0)
EMLRUD	Length of medium priority request/response units delivered to the adjacent system.	PD (11,0)

Field Name	Description	Attribute
EMTRUD	Cumulative service time to deliver a medium priority request/response unit to the adjacent system.	PD (11,0)
EMNRUR	Number of medium priority request/response units received from the adjacent system.	PD (11,0)
EMLRUR	Length of medium priority request/response units received from the adjacent system.	PD (11,0)
ELNSS	Number of low priority sessions started	PD (11,0)
ELNSE	Number of low priority sessions ended.	PD (11,0)
ELNBB	Number of request units with begin bracket sent and received for all low priority sessions.	PD (11,0)
ELNEB	Number of request units with end bracket sent and received for all low priority sessions.	PD (11,0)
ELSPWT	The cumulative wait time for all low priority sessions (in milliseconds) caused by session-level send messages. This wait time measures the amount of time application data was blocked (could not be sent) waiting for a pacing response to be received from the adjacent system	PD (11,0)
ELSPNW	Number of waits occurring for all low priority sessions for session-level send pacing. That is, the number of times application data was blocked (could not be sent) waiting for a pacing response to be received from the adjacent system.	PD (11,0)
ELSPPW	Number of potential waits occurring for all low priority sessions for session-level send pacing. This is the worst case that would occur if the sending of application data was delayed waiting for every pacing response sent by the adjacent system.	PD (11,0)
ELSPWS	The cumulative window size for all low priority sessions for session-level send pacing. Each time a pacing response is received from the adjacent system on a network priority session, this count is increased by window size specified by the pacing response.	PD (11,0)
ELIPWT	The cumulative wait time for all low priority sessions (in milliseconds) for internal session-level pacing. That is, the number of times application data was blocked (could not be sent) waiting for data to be delivered to the adjacent system.	PD (11,0)
ELIPNW	Number of waits occurring for all low priority sessions for internal session-level pacing. That is, the number of times application data was blocked (could not be sent) waiting for data to be delivered to the adjacent system.	PD (11,0)
ELQNRE	Number of low priority request/response units entering the transmission priority queue.	PD (11,0)
ELQLRE	Length of low priority request/response units entering the transmission priority queue.	PD (11,0)
ELQNRL	Number of low priority request/response units leaving the transmission priority queue.	PD (11,0)
ELQLRL	Length of low priority request/response units leaving the transmission priority queue.	PD (11,0)
ELQTRR	Cumulative wait time in low transmission priority queue.	PD (11,0)
ELNRUD	Number of low priority request/response units delivered to the adjacent system.	PD (11,0)
ELLRUD	Length of low priority request/response units delivered to the adjacent system.	PD (11,0)
ELTRUD	Cumulative service time to deliver a low priority request/response unit to the adjacent system.	PD (11,0)

Field Name	Description	Attribute
ELNRUR	Number of low priority request/response units received from the adjacent system.	PD (11,0)
ELLRUR	Length of low priority request/response units received from the adjacent system.	PD (11,0)
<b>The following fields refer to intermediate sessions:</b>		
INNSS	Number of network priority sessions started	PD (11,0)
INNSE	Number of network priority sessions ended	PD (11,0)
INNBB	Number of request units with begin bracket sent and received for all network priority sessions	PD (11,0)
INNEB	Number of request units with end bracket sent and received for all network priority sessions	PD (11,0)
INSPWT	The cumulative wait time for all network priority sessions (in milliseconds) caused by session-level send messages. This wait time measures the amount of time application data was blocked (could not be sent) waiting for a pacing response to be received from the adjacent system.	PD (11,0)
INSPNW	Number of waits occurring for all network priority sessions for session-level send pacing. That is, the number of times application data was blocked (could not be sent) waiting for a pacing response to be received from the adjacent system.	PD (11,0)
INSPPW	Number of potential waits occurring for all network priority sessions for session-level send pacing. This is the worst case that would occur if the sending of application data was delayed waiting for every pacing response sent by the adjacent system.	PD (11,0)
INSPWS	The cumulative window size for all network priority sessions for session-level send pacing. Each time a pacing response is received from the adjacent system on a network priority session, this count is increased by window size specified by the pacing response.	PD (11,0)
INIPWT	The cumulative wait time for all network priority sessions (in milliseconds) for internal session-level pacing. That is, the number of times application data was blocked (could not be sent) waiting for data to be delivered to the adjacent system.	PD (11,0)
INIPNW	Number of waits occurring for all network priority sessions for internal session-level pacing. That is, the number of times application data was blocked (could not be sent) waiting for data to be delivered to the adjacent system.	PD (11,0)
INQNRE	Number of network priority request/response units entering the transmission priority queue.	PD (11,0)
INQLRE	Length of network priority request/response units entering the transmission priority queue.	PD (11,0)
INQNRL	Number of network priority request/response units leaving the transmission priority queue.	PD (11,0)
INQLRL	Length of network priority request/response units leaving the transmission priority queue.	PD (11,0)
INQTRR	Cumulative wait time in network transmission priority queue.	PD (11,0)
INNRUD	Number of network priority request/response units delivered to the adjacent system.	PD (11,0)
INLRUD	Length of network priority request/response units delivered to the adjacent system.	PD (11,0)
INTRUD	Cumulative service time to deliver a network priority request/response unit to the adjacent system.	PD (11,0)



Field Name	Description	Attribute
INNRUR	Number of network priority request/response units received from the adjacent system.	PD (11,0)
INLRUR	Length of network priority request/response units received from the adjacent system.	PD (11,0)
IHNSS	Number of high priority sessions started.	PD (11,0)
IHNSE	Number of high priority sessions ended.	PD (11,0)
IHNBB	Number of request units with begin bracket sent and received for all high priority sessions.	PD (11,0)
IHNEB	Number of request units with end bracket sent and received for all high priority sessions.	PD (11,0)
IHSPWT	The cumulative wait time for all high priority sessions (in milliseconds) caused by session-level send messages. This wait time measures the amount of time application data was blocked (could not be sent) waiting for a pacing response to be received from the adjacent system.	PD (11,0)
IHSPNW	Number of waits occurring for all high priority sessions for session-level send pacing. That is, the number of times application data was blocked (could not be sent) waiting for a pacing response to be received from the adjacent system.	PD (11,0)
IHSPPW	Number of potential waits occurring for all high priority sessions for session-level send pacing. This is the worst case that would occur if the sending of application data was delayed waiting for every pacing response sent by the adjacent system.	PD (11,0)
IHSPWS	The cumulative window size for all high priority sessions for session-level send pacing. Each time a pacing response is received from the adjacent system on a network priority session, this count is increased by window size specified by the pacing response.	PD (11,0)
IHIPWT	The cumulative wait time for all high priority sessions (in milliseconds) for internal session-level pacing. That is, the number of times application data was blocked (could not be sent) waiting for data to be delivered to the adjacent system.	PD (11,0)
IHIPNW	Number of waits occurring for all high priority sessions for internal session-level pacing. That is, the number of times application data was blocked (could not be sent) waiting for data to be delivered to the adjacent system.	PD (11,0)
IHQNRE	Number of high priority request/response units entering the transmission priority queue.	PD (11,0)
IHQLRE	Length of high priority request/response units entering the transmission priority queue.	PD (11,0)
IHQNRL	Number of high priority request/response units leaving the transmission priority queue.	PD (11,0)
IHQLRL	Length of high priority request/response units leaving the transmission priority queue.	PD (11,0)
IHQTRR	Cumulative wait time in high transmission priority queue.	PD (11,0)
IHNRUD	Number of high priority request/response units delivered to the adjacent system.	PD (11,0)
IHLRUD	Length of high priority request/response units delivered to the adjacent system.	PD (11,0)
IHTRUD	Cumulative service time to deliver a high priority request/response unit to the adjacent system.	PD (11,0)
IHNRUR	Number of high priority request/response units received from the adjacent system.	PD (11,0)

Field Name	Description	Attribute
IHLRUR	Length of high priority request/response units received from the adjacent system.	PD (11,0)
IMNSS	Number of medium priority sessions started.	PD (11,0)
IMNSE	Number of medium priority sessions ended.	PD (11,0)
IMNBB	Number of request units with begin bracket sent and received for all medium priority sessions.	PD (11,0)
IMNEB	Number of request units with end bracket sent and received for all medium priority sessions.	PD (11,0)
IMSPWT	The cumulative wait time for all medium priority sessions (in milliseconds) caused by session-level send messages. This wait time measures the amount of time application data was blocked (could not be sent) waiting for a pacing response to be received from the adjacent system.	PD (11,0)
IMSPNW	Number of waits occurring for all medium priority sessions for session-level send pacing. That is, the number of times application data was blocked (could not be sent) waiting for a pacing response to be received from the adjacent system.	PD (11,0)
IMSPPW	Number of potential waits occurring for all medium priority sessions for session-level send pacing. This is the worst case that would occur if the sending of application data was delayed waiting for every pacing response sent by the adjacent system.	PD (11,0)
IMSPWS	The cumulative window size for all medium priority sessions for session-level send pacing. Each time a pacing response is received from the adjacent system on a network priority session, this count is increased by window size specified by the pacing response.	PD (11,0)
IMIPWT	The cumulative wait time for all medium priority sessions (in milliseconds) for internal session-level pacing. That is, the number of times application data was blocked (could not be sent) waiting for data to be delivered to the adjacent system.	PD (11,0)
IMIPNW	Number of waits occurring for all medium priority sessions for internal session-level pacing. That is, the number of times application data was blocked (could not be sent) waiting for data to be delivered to the adjacent system.	PD (11,0)
IMQNRE	Number of medium priority request/response units entering the transmission priority queue.	PD (11,0)
IMQLRE	Length of medium priority request/response units entering the transmission priority queue.	PD (11,0)
IMQNRL	Number of medium priority request/response units leaving the transmission priority queue.	PD (11,0)
IMQLRL	Length of medium priority request/response units leaving the transmission priority queue.	PD (11,0)
IMQTRR	Cumulative wait time in medium transmission priority queue.	PD (11,0)
IMNRUD	Number of medium priority request/response units delivered to the adjacent system.	PD (11,0)
IMLRUD	Length of medium priority request/response units delivered to the adjacent system.	PD (11,0)
IMTRUD	Cumulative service time to deliver a medium priority request/response unit to the adjacent system.	PD (11,0)
IMNRUR	Number of medium priority request/response units received from the adjacent system.	PD (11,0)
IMLRUR	Length of medium priority request/response units received from the adjacent system.	PD (11,0)

Field Name	Description	Attribute
ILNSS	Number of low priority sessions started.	PD (11,0)
ILNSE	Number of low priority sessions ended.	PD (11,0)
ILNBB	Number of request units with begin bracket sent and received for all low priority sessions.	PD (11,0)
ILNEB	Number of request units with end bracket sent and received for all low priority sessions.	PD (11,0)
ILSPWT	The cumulative wait time for all low priority sessions (in milliseconds) caused by session-level send messages. This wait time measures the amount of time application data was blocked (could not be sent) waiting for a pacing response to be received from the adjacent system.	PD (11,0)
ILSPNW	Number of waits occurring for all low priority sessions for session-level send pacing. That is, the number of times application data was blocked (could not be sent) waiting for a pacing response to be received from the adjacent system.	PD (11,0)
ILSPPW	Number of potential waits occurring for all low priority sessions for session-level send pacing. This is the worst case that would occur if the sending of application data was delayed waiting for every pacing response sent by the adjacent system.	PD (11,0)
ILSPWS	The cumulative window size for all low priority sessions for session-level send pacing. Each time a pacing response is received from the adjacent system on a network priority session, this count is increased by window size specified by the pacing response.	PD (11,0)
ILIPWT	The cumulative wait time for all low priority sessions (in milliseconds) for internal session-level pacing. That is, the number of times application data was blocked (could not be sent) waiting for data to be delivered to the adjacent system.	PD (11,0)
ILIPNW	Number of waits occurring for all low priority sessions for internal session-level pacing. That is, the number of times application data was blocked (could not be sent) waiting for data to be delivered to the adjacent system.	PD (11,0)
ILQNRE	Number of low priority request/response units entering the transmission priority queue.	PD (11,0)
ILQLRE	Length of low priority request/response units entering the transmission priority queue.	PD (11,0)
ILQNRL	Number of low priority request/response units leaving the transmission priority queue.	PD (11,0)
ILQLRL	Length of low priority request/response units leaving the transmission priority queue.	PD (11,0)
ILQTRR	Cumulative wait time in low transmission priority queue.	PD (11,0)
ILNRUD	Number of low priority request/response units delivered to the adjacent system.	PD (11,0)
ILLRUD	Length of low priority request/response units delivered to the adjacent system.	PD (11,0)
ILTRUD	Cumulative service time to deliver a low priority request/response unit to the adjacent system.	PD (11,0)
ILNRUR	Number of low priority request/response units received from the adjacent system.	PD (11,0)
ILLRUR	Length of low priority request/response units received from the adjacent system.	PD (11,0)

## Performance data files: QAPMSNADS

This table defines the fields in the the SNA distribution services (SNADS) files record. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
SNJNAM	SNADS job name.	C(10)
SNJUSR	SNADS job user.	C(10)
SNJNBR	SNADS job number.	C(6)
SNFTYP	This is a SNADS function type indicating which SNADS function this job is running. The SNFTYP field is used to determine the type of activity that this SNADS job conducts. <ul style="list-style-type: none"> <li>• 1 — SNADS router</li> <li>• 2 — SNADS receiver</li> <li>• 3 — SNADS sender</li> <li>• 8 — SNADS DLS Gate (Document Library Services)</li> <li>• 9 — SNADS RPDS Gate (VM/MVS bridge, SMTP, X.400)</li> </ul>	PD(3,0)
SNNTR	Transaction count.	PD(11,0)
SNTRT	Transaction time: The time from a distribution being put on the queue to the time processing that distribution within this job is completed.	PD(11,0)
SNRUT	Resource usage time: The total time that distributions are processed, not including the time that they are waiting on the queue.	PD(11,0)
SNATN	Active transitions: The number of transitions between waiting for conditions to be satisfied (a distribution to process) and starting to process a distribution.	PD(11,0)
SNERR	Error count: Number of transactions that ended in error.	PD(11,0)
SNNRC	Number of recipients: The number of recipients identified in the distribution.	PD(11,0)
SNFSO	File server object (FSO) count: The number of transactions that required a data object or document to be processed.	PD(11,0)
SNFSOB	FSO byte count: The size of the FSOs (data objects and documents) processed by transactions.	PD (11,0)
SNFOC	Fan-out count: The accumulated value of the number of distribution queues that received a copy of a distribution during routing. For a single distribution processed by the router, this value is the number of sender transactions (paths) the distribution will take leaving the system. This is the number of distribution copies that leave the system. (This field is only supported by the router job.)	PD (11,0)
SNLOC	Set to '1' when a local delivery queue received a copy of the distribution during routing. This indicates that the local system was a destination for the distribution. (This field is only supported by the router job.)	PD (11,0)

## Performance data files: QAPMSTND

This data includes FDDI station file entries. This is the station counter file for distributed data interface (DDI) information. These fields are in the DDI station counter file. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name.	C(10)
SDIOPI	Reserved	C (1)
SDTYPE	The resource type of the IOP or adapter represented by this record.	C (4)
SDPCEP	The provider connection end point (PCEP) ID.	C (8)
SDLND	Line description: The name of the description for this line.	C (10)
SDSTNN	Station name: The name of the station on this line.	C (10)
SDLSPD	Line speed: The line speed expressed in bits per second (bps).	PD (11,0)
SDTXMT	Total number of Type II frames transmitted.	PD (11,0)
SDTRCV	Total number of Type II frames received.	PD (11,0)
SDBXMT	Total number of bytes transmitted in all I-frames.	PD (11,0)
SDBRCV	Total number of bytes received in all I-frames.	PD (11,0)
SDIXMT	Total number of I-frames transmitted.	PD (11,0)
SDIRCV	Total number of I-frames received.	PD (11,0)
SDIREX	Number of I-frames retransmitted.	PD (11,0)
SDBREX	Number of bytes retransmitted in I-frames.	PD (11,0)
SDRNRX	Number of receive-not-ready frames transmitted.	PD (5,0)
SDRNRR	Number of receive-not-ready frames received.	PD (5,0)
SDFRMX	Number of frame-reject frames transmitted.	PD (5,0)
SDFRMR	Number of frame-reject frames received.	PD (5,0)
SDREJR	Number of reject frames received.	PD (5,0)
SDREJX	Number of reject frames transmitted.	PD (5,0)
SDSABX	Number of set asynchronous balanced mode extended frames transmitted.	PD (5,0)
SDSABR	Number of set asynchronous balanced mode extended frames received.	PD (5,0)
SDDISX	Number of disconnect frames transmitted.	PD (5,0)
SDDISR	Number of disconnect frames received.	PD (5,0)
SDDMFX	Number of disconnect mode frames transmitted.	PD (5,0)
SDDMFR	Number of disconnect mode frames received.	PD (5,0)
SDN2RE	N2 retries end count: This count is updated when the host has attempted to contact a station n times, and the T1 timer ended n times before the station responded.	PD (5,0)
SDT1TE	T1 timer end count: Number of times the T1 timer ended. This count is updated when the host has attempted to contact a station n times, and the T1 timer ended n times before the station responded.	PD (5,0)

Field Name	Description	Attribute
SDTITE	Ti timer end count: Number of times the Ti timer (inactivity timer) ended.	PD (5,0)
SDLBCT	Local busy count: Number of times station entered local busy substate.	PD (5,0)
SDPRCL	Protocol type: C for DDI.	C (1)

## Performance data files: QAPMSTNE

This data includes Ethernet station file entries and lists the fields in the Ethernet station file. Ethernet LAN station statistics are reported for active Ethernet line descriptions that are associated with Ethernet ports and with ATM ports that support Ethernet LAN emulation. For information about how Collection Services generates this file and where the data comes from, refer to "Performance data files: Collection Services system category and file relationships" on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name.	C(10)
STIOPI	Reserved	C (1)
STTYPE	The resource type of the IOP or adapter represented by this record.	C (4)
STPCEP	The provider connection endpoint (PCEP) ID.	C (8)
STLND	Line description: The name of the description for this line.	C (10)
STSTNN	Station name: The name of the station on this line.	C (10)
STLSPD	Line speed: The line speed expressed in bits per second (bps). For some lines, this value might change as time progresses.	PD (11,0)
STTXMT	Total number of Type II frames transmitted.	PD (11,0)
STTRCV	Total number of Type II frames received.	PD (11,0)
STBXMT	Total number of bytes transmitted in all I-frames.	PD (11,0)
STBRCV	Total number of bytes received in all I-frames.	PD (11,0)
STIXMT	Total number of I-frames transmitted.	PD (11,0)
STIRCV	Total number of I-frames received.	PD (11,0)
STIREX	Number of I-frames retransmitted.	PD (11,0)
STBREX	Number of bytes retransmitted in I-frames.	PD (11,0)
STRNRX	Number of receive-not-ready frames transmitted.	PD (5,0)
STRNRR	Number of receive-not-ready frames received.	PD (5,0)
STFRMX	Number of frame-reject frames transmitted.	PD (5,0)
STFRMR	Number of frame-reject frames received.	PD (5,0)
STREJR	Number of reject frames received.	PD (5,0)
STREJX	Number of reject frames transmitted.	PD (5,0)
STSABX	Number of set asynchronous balanced mode extended frames transmitted.	PD (5,0)
STSABR	Number of set asynchronous balanced mode extended frames received.	PD (5,0)
STDISX	Number of disconnect frames transmitted.	PD (5,0)

Field Name	Description	Attribute
STDISR	Number of disconnect frames received.	PD (5,0)
STDMFX	Number of disconnect mode frames transmitted.	PD (5,0)
STDMFR	Number of disconnect mode frames received.	PD (5,0)
STN2RE	N2 retries end count: This count is updated when the host has attempted to contact a station n times and n times the T1 timer ended before the station responded.	PD (5,0)
STT1TE	T1 timer end count: Number of times the T1 timer ended. This count is updated when the host has attempted to contact a station n times and n times the T1 timer ended before the station responded.	PD (5,0)
STTITE	Ti timer end count: Number of times the Ti timer (inactivity timer) ended.	PD (5,0)
STLBCT	Local busy count: Number of times station entered local busy substate.	PD (5,0)
STPRCL	Protocol type: T for Ethernet network.	C (1)

## Performance data files: QAPMSTNL

This data includes token-ring station file entries and lists the fields in the token-ring local area network (LAN) station file. Token-ring LAN station statistics are reported for active token-ring line descriptions that are associated with token-ring ports and with ATM ports that support token-ring LAN emulation. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name.	C(10)
SLIOPI	Reserved	C (1)
SLTYPE	The resource type of the IOP or adapter represented by this record.	C (4)
SLPCEP	The provider connection end point (PCEP) ID.	C (8)
SLLND	Line description: The name of the description for this line.	C (10)
SLSTNN	Station name: The name of the station on this line.	C (10)
SLLSPD	Line speed: The line speed expressed in bits per second (bps).	PD (11,0)
SLTXMT	Total number of Type II frames transmitted.	PD (11,0)
SLTRCV	Total number of Type II frames received.	PD (11,0)
SLBXMT	Total number of bytes transmitted in all I-frames.	PD (11,0)
SLBRCV	Total number of bytes received in all I-frames.	PD (11,0)
SLIXMT	Total number of I-frames transmitted.	PD (11,0)
SLIRCV	Total number of I-frames received.	PD (11,0)
SLIREX	Number of I-frames retransmitted.	PD (11,0)
SLBREX	Number of bytes retransmitted in I-frames.	PD (11,0)
SLRNRX	Number of receive-not-ready frames transmitted.	PD (5,0)
SLRNRR	Number of receive-not-ready frames received.	PD (5,0)

Field Name	Description	Attribute
SLFRMX	Number of frame-reject frames transmitted.	PD (5,0)
SLFRMR	Number of frame-reject frames received.	PD (5,0)
SLREJR	Number of reject frames received.	PD (5,0)
SLREJX	Number of reject frames transmitted.	PD (5,0)
SLSABX	Number of set asynchronous balanced mode extended frames transmitted.	PD (5,0)
SLSABR	Number of set asynchronous balanced mode extended frames received.	PD (5,0)
SLDISX	Number of disconnect frames transmitted.	PD (5,0)
SLDISR	Number of disconnect frames received.	PD (5,0)
SLDMFX	Number of disconnect mode frames transmitted.	PD (5,0)
SLDMFR	Number of disconnect mode frames received.	PD (5,0)
SLN2RE	N2 retries end count: This count is updated when the host has attempted to contact a station n times and n times the T1 timer ended before the station responded.	PD (5,0)
SLT1TE	T1 timer end count: Number of times the T1 timer ended. This count is updated when the host has attempted to contact a station n times and n times the T1 timer ended before the station responded.	PD (5,0)
SLTITE	Ti timer end count: Number of times the Ti timer (inactivity timer) ended.	PD (5,0)
SLLBCT	Local busy count: Number of times station entered local busy substate.	PD (5,0)
SLPRCL	Protocol type: E for token-ring network.	C (1)

## Performance data files: QAPMSTNY

This data includes frame relay station file entries and lists the fields in the frame relay station file. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name.	C(10)
SYIOPI	Reserved	C (1)
SYTYPE	The resource type of the IOP or adapter represented by this record.	C (4)
SYPCEP	The provider connection end point (PCEP) ID.	C (8)
SYLND	Network interface (NWI) description: The name of the description for this network interface.	C (10)
SYSTNN	Station name: The name of the station on this line.	C (10)
SYLSPD	Line speed: The line speed expressed in bits per second (bps).	PD (11,0)
SYTXMT	Total number of Type II frames transmitted.	PD (11,0)
SYTRCV	Total number of Type II frames received.	PD (11,0)
SYBXMT	Total number of bytes transmitted in all I-frames.	PD (11,0)
SYBRCV	Total number of bytes received in all I-frames.	PD (11,0)



Field Name	Description	Attribute
SYIXMT	Total number of I-frames transmitted.	PD (11,0)
SYIRCV	Total number of I-frames received.	PD (11,0)
SYIREX	Number of I-frames retransmitted.	PD (11,0)
SYBRES	Number of bytes retransmitted in I-frames.	PD (11,0)
SYRNRX	Number of receive-not-ready frames transmitted.	PD (5,0)
SYRNRR	Number of receive-not-ready frames received.	PD (5,0)
SYFRMX	Number of frame-reject frames transmitted.	PD (5,0)
SYFRMR	Number of frame-reject frames received.	PD (5,0)
SYREJR	Number of reject frames received.	PD (5,0)
SYREJX	Number of reject frames transmitted.	PD (5,0)
SYSABX	Number of set asynchronous balanced mode extended frames transmitted.	PD (5,0)
SYSABR	Number of set asynchronous balanced mode extended frames received.	PD (5,0)
SYDISX	Number of disconnect frames transmitted.	PD (5,0)
SYDISR	Number of disconnect frames received.	PD (5,0)
SYDMFX	Number of disconnect mode frames transmitted.	PD (5,0)
SYDMFR	Number of disconnect mode frames received.	PD (5,0)
SYN2RE	N2 retries end count: This count is updated when the host has attempted to contact a station n times and n times the T1 timer ended before the station responded.	PD (5,0)
SYT1TE	T1 timer end count: Number of times the T1 timer ended. This count is updated when the host has attempted to contact a station n times and n times the T1 timer ended before the station responded.	PD (5,0)
SYTITE	Ti timer end count: Number of times the Ti timer (inactivity timer) ended.	PD (5,0)
SYLBCT	Local busy count: Number of times station entered local busy substate.	PD (5,0)
SYPRCL	Protocol type: Y for frame relay.	C (1)

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## Performance data files: QAPMSYS and QAPMSYSL

The QAPMSYS file is created when the performance monitor database files are migrated with the Convert Performance Data (CVTPFRDTA) command to a newer release. Collection Services does not create this file. The QAPMSYSL file is provided for compatibility with the performance monitor and combines data from QAPMJSUM, QAPMSYSCPU, and QAPMSYSTEM files. This file is produced when all of these categories are requested from the Create Performance Data (CRTPFRDTA) command. This file contains system interval file entries.

The following terms are used in the field descriptions and are repeated for each group of jobs:

- Number of database read operations. Total number of physical read operations for database functions.
- Number of nondatabase read operations. Total number of physical read operations for nondatabase functions.
- Number of write operations. Total number of physical write operations.
- Number of print lines. Number of lines written by the program, which does not reflect what is actually printed. Spooled files can be ended or printed with multiple copies.
- Number of database writes/reads (logical). Number of times the database module was called, which does not include I/O operations to readers/writers or I/O operations caused by the Copy Spooled File

(CPYSPLF) or Display Spooled File (DSPSPLF) command. If SEQONLY(\*YES) is in effect, these numbers show each block of records read or written, not the number of individual records read or written.

- Number of communications writes/reads (logical). These do not include remote workstation activity. They include only activity related to OS/400<sup>(R)</sup>-ICF files when the I/O is for a communications device.

Users should note that blocked I/O is considered one I/O operation. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
SYDPGF	Directory page faults: Number of times a page of the auxiliary storage directory was transferred to main storage for a look-up or an allocation operation.	PD (11,0)
SYAPGF	Access group member page faults: Number of times a page of an object contained in an access group was transferred to main storage independently of the access group. This transfer occurs when the containing access group was purged, or because portions of the containing access group are displaced from main storage.	PD (11,0)
SYMPGF	Microcode page faults: Number of times a page of microcode was transferred to main storage.	PD (11,0)
SYMCTR	Microtask read operations: Number of transfers of one or more pages of data from auxiliary storage because of a microtask rather than a process.	PD (11,0)
SYMCTW	Microtask write operations: Number of transfers of one or more pages of data from main storage to auxiliary storage because of a microtask rather than a process.	PD (11,0)
SYSASP	System auxiliary storage pool space available: Number of bytes of space on auxiliary storage available for allocation in the system ASP that is not currently assigned to machine interface (MI) objects or internal machine functions.	PD (15,0)
SYPRMW	Permanent data transferred from main storage: Number of 512-byte blocks of permanent data transferred from main storage to the system ASP in auxiliary storage since the last sample.	PD (11,0)
SYXSRW	Reserved	PD (11,0)
SYEAOT	Reserved	PD (11,0)
SYEAOL	Reserved	PD (11,0)
SYBSYC	Reserved	PD (11,0)
SYSIZC	Size count: Total number of size exceptions.	PD (11,0)
SYDECD	Decimal data count: Total number of decimal data exceptions.	PD (11,0)
SYSEZC	Seize count: Total number of seize waits.	PD (11,0)
SYSZWT	Seize/wait time in milliseconds.	PD (11,0)
SYSYNL	Synchronous lock conflict count.	PD (11,0)
SYASYL	Asynchronous lock conflict count.	PD (11,0)
SYVFC	Verify count.	PD (11,0)

Field Name	Description	Attribute
SYAUTH	» Object authority checks. The number of times that authority was checked for objects. An authority check for one object can result in zero, one, or more than one user authority lookups that can be cached or noncached (see SYNUAL field description). «	PD (11,0)
SYCHNB	Reserved	PD (11,0)
SYEXPN	Total number of exceptions.	PD (11,0)
SYLRT1	Transactions in first response time monitor bracket: Total number of local workstation transactions with response time less than the value of boundary 1 specified on the Advanced Local Response Time Options dialog from the Collection Services properties page within the iSeries <sup>(TM)</sup> Navigator interface.	PD (9,0)
SYLRT2	Transactions in second response time monitor bracket: Total number of local workstation transactions with response time less than the value of boundary 2 and greater than the value of boundary 1 specified on the Advanced Local Response Time Options dialog from the Collection Services properties page within the iSeries Navigator interface.	PD (9,0)
SYLRT3	Transactions in third response time monitor bracket: Total number of local workstation transactions with response time less than the value of boundary 3 and greater than the value of boundary 2 specified on the Advanced Local Response Time Options dialog from the Collection Services properties page within the iSeries Navigator interface.	PD (9,0)
SYLRT4	Transactions in fourth response time monitor bracket: Total number of local workstation transactions with response time less than the value of boundary 4 and greater than the value of boundary 3 specified on the Advanced Local Response Time Options dialog from the Collection Services properties page within the iSeries Navigator interface.	PD (9,0)
SYLRT5	Transactions in fifth response time monitor bracket: Total number of local workstation transactions with response time greater than the value of boundary 4 specified on the Advanced Local Response Time Options dialog from the Collection Services properties page within the iSeries Navigator interface.	PD (9,0)
SDCPU	Total processing unit time used (in milliseconds) by target distributed data management (DDM) job.	PD (11,0)
SDRES1	Reserved.	PD (15,3)
SDRES2	Reserved.	PD (11,0)
SDPRTL	Total number of print lines of all target DDM jobs.	PD (11,0)
SDPRTP	Total number of print pages of all target DDM jobs.	PD (11,0)
SDSPD	Total count of suspended time of target DDM jobs.	PD (11,0)
SDRRT	Total count of time a target DDM job waited during rerouting.	PD (11,0)
SDNEW	Number of new target DDM job.	PD (11,0)
SDTERM	Number of ended target DDM jobs.	PD (11,0)
SDJBCT	Number of DDM jobs.	PD (11,0)
SDPDDBR	Total number of physical synchronous database reads by target DDM jobs.	PD (11,0)
SDPNDB	Total number of physical synchronous nondatabase reads by target DDM jobs.	PD (11,0)
SDPWRT	Total number of physical synchronous database and nondatabase writes by target DDM jobs.	PD (11,0)
SDLDBR	Total number of logical database reads by target DDM jobs.	PD (11,0)
SDLDBW	Total number of logical database writes by target DDM jobs.	PD (11,0)
SDLDBU	Total number of miscellaneous database operations by target DDM jobs.	PD (11,0)

Field Name	Description	Attribute
SDCMPT	Total number of communications writes by target DDM jobs.	PD (11,0)
SDCMGT	Total number of communications reads by target DDM jobs.	PD (11,0)
SDBRG	Reserved	PD (11,0)
SDPRG	Reserved	PD (11,0)
SDNDW	Number of synchronous nondatabase writes: Total number of synchronous physical nondatabase write operations for nondatabase functions by target DDM jobs.	PD (11,0)
SDDBW	Number of synchronous database writes: Total number of synchronous physical database write operations for database functions by target DDM jobs.	PD (11,0)
SDANDW	Number of asynchronous nondatabase writes: Total number of asynchronous physical nondatabase write operations for nondatabase functions by target DDM jobs.	PD (11,0)
SDADBW	Number of asynchronous database writes: Total number of asynchronous physical database write operations for database functions by target DDM jobs.	PD (11,0)
SDANDR	Number of asynchronous nondatabase reads: Total number of asynchronous physical nondatabase read operations for nondatabase functions by target DDM jobs.	PD (11,0)
SDADBR	Number of asynchronous database reads: Total number of asynchronous physical database read operations for database functions by target DDM jobs.	PD (11,0)
SDPW	Number of permanent writes by target DDM jobs.	PD (11,0)
SDCS	Reserved	PD (11,0)
SDPAGF	Number of PAG faults. Total number of times the program access group (PAG) was referred to by target DDM jobs, but was not in main storage. The Licensed Internal Code no longer uses process access groups for caching data. Because of this implementation, this field will always be 0 for more current releases.	PD (11,0)
SDEAO	Reserved	PD (11,0)
SDOBIN	Number of binary overflows by target DDM jobs.	PD (11,0)
SDODEC	Number of decimal overflows by target DDM jobs.	PD (11,0)
SDOFLP	Number of floating point overflows by target DDM jobs.	PD (11,0)
SDIPF	Number of times a target distributed data management (DDM) job had a page fault on an address that was currently part of an auxiliary storage I/O operation.	PD (11,0)
SDWIO	Number of times a target distributed data management (DDM) job explicitly waited for outstanding asynchronous I/O operations to complete.	PD (11,0)
SDSKSC	DDM number of socket sends.	PD (11,0)
SDSKBS	DDM number of socket bytes sent.	PD (11,0)
SDSKRC	DDM number of socket receives.	PD (11,0)
SDSKBR	DDM number of socket bytes received.	PD (11,0)
SDXRFR	DDM stream file reads.	PD (11,0)
SDXRFW	DDM stream file writes.	PD (11,0)
SDXSLR	DDM file system symbolic link reads.	PD (11,0)
SDXDYR	DDM file system directory reads.	PD (11,0)
SDDLCH	DDM file system lookup cache hits.	PD (11,0)
SDDLCM	DDM file system lookup cache misses.	PD (11,0)
SDSZWT	DDM seize/wait time in milliseconds.	PD (11,0)

Field Name	Description	Attribute
SWCPU	Total processing unit time (in milliseconds) used by iSeries Access applications.	PD (11,0)
SWRES1	Reserved.	PD (15,3)
SWRES2	Reserved.	PD (11,0)
SWPRTL	Total number of print lines of all iSeries Access application jobs.	PD (11,0)
SWPRTP	Total number of print pages of all iSeries Access application jobs.	PD (11,0)
SWSPD	Total time iSeries Access application jobs were suspended.	PD (11,0)
SWRRT	Total time a iSeries Access applications job waited during rerouting.	PD (11,0)
SWNEW	Number of started iSeries Access application jobs.	PD (11,0)
SWTERM	Number of ended iSeries Access application jobs.	PD (11,0)
SWJBCT	Number of iSeries Access jobs.	PD (11,0)
SWPDBR	Total number of physical synchronous database reads by iSeries Access application jobs.	PD (11,0)
SWPNDB	Total number of physical synchronous nondatabase reads by iSeries Access application jobs.	PD (11,0)
SWPWRT	Total number of physical synchronous database and nondatabase writes by iSeries Access application jobs.	PD (11,0)
SWLDBR	Total number of logical database reads by iSeries Access application jobs.	PD (11,0)
SWLDBW	Total number of logical database writes by iSeries Access application jobs.	PD (11,0)
SWLDBU	Total number of miscellaneous database operations by iSeries Access application jobs.	PD (11,0)
SWCMPT	Total number of communications writes by iSeries Access application jobs.	PD (11,0)
SWCMGT	Total number of communications reads by iSeries Access application jobs.	PD (11,0)
SWBRG	Reserved	PD (11,0)
SWPRG	Reserved	PD (11,0)
SWNDW	Number of synchronous nondatabase writes: Total number of synchronous physical nondatabase write operations for nondatabase functions by iSeries Access applications.	PD (11,0)
SWDBW	Number of synchronous database writes: Total number of synchronous physical database write operations for database functions by iSeries Access applications.	PD (11,0)
SWANDW	Number of asynchronous nondatabase writes: Total number of asynchronous physical nondatabase write operations for nondatabase functions by iSeries Access applications.	PD (11,0)
SWADBW	Number of asynchronous database writes: Total number of asynchronous physical database write operations for database functions by iSeries Access applications.	PD (11,0)
SWANDR	Number of asynchronous nondatabase reads: Total number of asynchronous physical nondatabase read operations for nondatabase functions by iSeries Access applications.	PD (11,0)
SWADBR	Number of asynchronous database reads: Total number of asynchronous physical database read operations for database functions by iSeries Access applications.	PD (11,0)
SWPW	Number of permanent writes by iSeries Access applications.	PD (11,0)
SWCS	Reserved	PD (11,0)

Field Name	Description	Attribute
SWPAGF	Number of PAG faults. Total number of times the program access group (PAG) was referred to by iSeries Access applications, but was not in main storage. The Licensed Internal Code no longer uses process access groups for caching data. Because of this implementation, this field will always be 0 for more current releases.	PD (11,0)
SWEAO	Reserved	PD (11,0)
SWOBIN	Number of binary overflows by iSeries Access applications.	PD (11,0)
SWODEC	Number of decimal overflows by iSeries Access applications.	PD (11,0)
SWOFLP	Number of floating point overflows by iSeries Access applications.	PD (11,0)
SWIPF	Number of times a iSeries Access application job had a page fault on an address that was currently part of an auxiliary storage I/O operation.	PD (11,0)
SWWIO	Number of times a iSeries Access application job explicitly waited for outstanding asynchronous I/O operations to complete.	PD (11,0)
SWSKSC	iSeries Access number of socket sends.	PD (11,0)
SWSKBS	iSeries Access number of socket bytes sent.	PD (11,0)
SWSKRC	iSeries Access number of socket receives.	PD (11,0)
SWSKBR	iSeries Access number of socket bytes received.	PD (11,0)
SWXRFR	iSeries Access stream file reads.	PD (11,0)
SWXRFW	iSeries Access stream file writes.	PD (11,0)
SWXSLR	iSeries Access file system symbolic link reads.	PD (11,0)
SWXDYR	iSeries Access file system directory reads.	PD (11,0)
SWDLCH	iSeries Access file system lookup cache hits.	PD (11,0)
SWDLCM	iSeries Access file system lookup cache misses.	PD (11,0)
SWSZWT	iSeries Access seize/wait time in milliseconds.	PD (11,0)
SPCPU	Total processing unit time (in milliseconds) used by pass-through target jobs.	PD (11,0)
SPRES1	Total transaction time by pass-through target jobs.	PD (15,3)
SPRES2	Total number of transactions by pass-through target jobs.	PD (11,0)
SPPRTL	Total number of print lines of all pass-through target jobs.	PD (11,0)
SPPRTP	Total number of print pages of all pass-through target jobs.	PD (11,0)
SPSPD	Total count of suspended time of pass-through target jobs.	PD (11,0)
SPRRT	Total count of time a pass-through target job waited during rerouting.	PD (11,0)
SPNEW	Number of started pass-through target jobs.	PD (11,0)
SPTERM	Number of ended pass-through target jobs.	PD (11,0)
SPJBCT	Number of pass-through jobs.	PD (11,0)
SPPDBR	Total number of physical synchronous database reads by pass-through target jobs.	PD (11,0)
SPPNDB	Total number of physical synchronous nondatabase reads by pass-through target jobs.	PD (11,0)
SPPWRT	Total number of physical synchronous database and nondatabase writes by pass-through target jobs.	PD (11,0)
SPLDBR	Total number of logical database reads by pass-through target jobs.	PD (11,0)
SPLDBW	Total number of logical database writes by pass-through target jobs.	PD (11,0)
SPLDBU	Total number of miscellaneous database operations by pass-through target jobs.	PD (11,0)

Field Name	Description	Attribute
SPCMPT	Total number of communications writes by pass-through target jobs.	PD (11,0)
SPCMGT	Total number of communications reads by pass-through target jobs.	PD (11,0)
SPBRG	Reserved	PD (11,0)
SPPRG	Reserved	PD (11,0)
SPNDW	Number of synchronous nondatabase writes: Total number of synchronous physical nondatabase write operations for nondatabase functions by pass-through target jobs.	PD (11,0)
SPDBW	Number of synchronous database writes: Total number of synchronous physical database write operations for database functions by pass-through target jobs.	PD (11,0)
SPANDW	Number of asynchronous nondatabase writes: Total number of asynchronous physical nondatabase write operations for nondatabase functions by pass-through target jobs.	PD (11,0)
SPADBW	Number of asynchronous database writes: Total number of asynchronous physical database write operations for database functions by pass-through target jobs.	PD (11,0)
SPANDR	Number of asynchronous nondatabase reads: Total number of asynchronous physical nondatabase read operations for nondatabase functions by pass-through target jobs.	PD (11,0)
SPADBR	Number of asynchronous database reads: Total number of asynchronous physical database read operations for database functions by pass-through target jobs.	PD (11,0)
SPPW	Number of permanent writes by pass-through target jobs.	PD (11,0)
SPCS	Reserved	PD (11,0)
SPPAGF	Number of PAG faults: Total number of times the program access group (PAG) was referred to by pass-through target jobs, but was not in main storage. The Licensed Internal Code no longer uses process access groups for caching data. Because of this implementation, this field will always be 0 for more current releases.	PD (11,0)
SPEAO	Reserved	PD (11,0)
SPOBIN	Number of binary overflows by pass-through target jobs.	PD (11,0)
SPODEC	Number of decimal overflows by pass-through target jobs.	PD (11,0)
SPOFLP	Number of floating point overflows by pass-through target jobs.	PD (11,0)
SPIPF	Number of times a pass-through target job had a page fault on an address that was currently part of an auxiliary storage I/O operation.	PD (11,0)
SPWIO	Number of times a pass-through target job explicitly waited for outstanding asynchronous I/O operations to complete.	PD (11,0)
SPSKSC	Passthrough number of socket sends.	PD (11,0)
SPSKBS	Passthrough number of socket bytes sent.	PD (11,0)
SPSKRC	Passthrough number of socket receives.	PD (11,0)
SPSKBR	Passthrough number of socket bytes received.	PD (11,0)
SPXRFR	Passthrough stream file reads.	PD (11,0)
SPXRFW	Passthrough stream file writes.	PD (11,0)
SPXSLR	Passthrough file system symbolic link reads.	PD (11,0)
SPXDYR	Passthrough file system directory reads.	PD (11,0)
SPDLCH	Passthrough file system lookup cache hits.	PD (11,0)

Field Name	Description	Attribute
SPDLCM	Passthrough file system lookup cache misses.	PD (11,0)
SPSZWT	Passthrough seize/wait time in milliseconds.	PD (11,0)
SMCPU	Total processing unit time (in milliseconds) used by multiple requester terminal (MRT) jobs (System/36 <sup>TM</sup> environment only).	PD (11,0)
SMRES1	Reserved.	PD (15,3)
SMRES2	Reserved.	PD (11,0)
SMPRTL	Total number of print lines of all MRT jobs (System/36 environment only).	PD (11,0)
SMPRTP	Total number of print pages of all MRT jobs (System/36 environment only).	PD (11,0)
SMSPD	Total time MRT jobs (System/36 environment only) were suspended.	PD (11,0)
SMRRT	Total time a MRT job (System/36 environment only) waited during rerouting.	PD (11,0)
SMNEW	Number of started MRT jobs (System/36 environment only).	PD (11,0)
SMTERM	Number of ended MRT jobs (System/36 environment only).	PD (11,0)
SMJBCT	Number of MRT jobs (System/36 environment only).	PD (11,0)
SMPDDBR	Total number of physical synchronous database reads by MRT jobs (System/36 environment only).	PD (11,0)
SMPNDB	Total number of physical synchronous nondatabase reads by MRT jobs (System/36 environment only).	PD (11,0)
SMPWRT	Total number of physical synchronous database and nondatabase writes by MRT jobs (System/36 environment only).	PD (11,0)
SMLDBR	Total number of logical database reads by MRT jobs (System/36 environment only).	PD (11,0)
SMLDBW	Total number of logical database writes by MRT jobs (System/36 environment only).	PD (11,0)
SMLDBU	Total number of miscellaneous database operations by MRT jobs (System/36 environment only).	PD (11,0)
SMCMPT	Total number of communications writes by MRT jobs (System/36 environment only).	PD (11,0)
SMCMGT	Total number of communications reads by MRT jobs (System/36 environment only).	PD (11,0)
SMBRG	Reserved	PD (11,0)
SMPRG	Reserved	PD (11,0)
SMNDW	Number of synchronous nondatabase writes: Total number of synchronous physical nondatabase write operations for nondatabase functions by MRT jobs (System/36 environment only).	PD (11,0)
SMDBW	Number of synchronous database writes: Total number of synchronous physical database write operations for database functions by MRT jobs (System/36 environment only).	PD (11,0)
SMANDW	Number of asynchronous nondatabase writes: Total number of asynchronous physical nondatabase write operations for nondatabase functions by MRT jobs (System/36 environment only).	PD (11,0)
SMADBW	Number of asynchronous database writes: Total number of asynchronous physical database write operations for database functions by MRT jobs (System/36 environment only).	PD (11,0)
SMANDR	Number of asynchronous nondatabase reads: Total number of asynchronous physical nondatabase read operations for nondatabase functions by MRT jobs (System/36 environment only).	PD (11,0)



Field Name	Description	Attribute
SMADBR	Number of asynchronous database reads: Total number of asynchronous physical database read operations for database functions by MRT jobs (System/36 environment only).	PD (11,0)
SMPW	Number of permanent writes by MRT jobs (System/36 environment only).	PD (11,0)
SMCS	Reserved	PD (11,0)
SMPAGF	Number of PAG faults: Total number of times the program access group (PAG) was referred to by MRT jobs (System/36 environment only), but was not in main storage. The Licensed Internal Code no longer uses process access groups for caching data. Because of this implementation, this field will always be 0 for more current releases.	PD (11,0)
SMEAO	Reserved	PD (11,0)
SMOBIN	Number of binary overflows by MRT jobs (System/36 environment only).	PD (11,0)
SMODEC	Number of decimal overflows by MRT jobs (System/36 environment only).	PD (11,0)
SMOFLP	Number of floating point overflows by MRT jobs (System/36 environment only).	PD (11,0)
SMIPF	Number of times a MRT job (System/36 environment only) had a page fault on an address that was currently part of an auxiliary storage I/O operation.	PD (11,0)
SMWIO	Number of times a MRT job (System/36 environment only) explicitly waited for outstanding asynchronous I/O operations to complete.	PD (11,0)
SMSKSC	MRTS Number of socket sends.	PD (11,0)
SMSKBS	MRTS Number of socket bytes sent.	PD (11,0)
SMSKRC	MRTS Number of socket receives.	PD (11,0)
SMSKBR	MRTS Number of socket bytes received.	PD (11,0)
SMXRFR	MRTS stream file reads.	PD (11,0)
SMXRFW	MRTS stream file writes.	PD (11,0)
SMXSLR	MRTS file system symbolic link reads.	PD (11,0)
SMXDYR	MRTS file system directory reads.	PD (11,0)
SMDLCH	MRTS file system lookup cache hits.	PD (11,0)
SMDLCM	MRTS file system lookup cache misses.	PD (11,0)
SMSZWT	MRTS seize/wait time in milliseconds.	PD (11,0)
S6CPU	Total processing unit time (in milliseconds) used by System/36 environment jobs.	PD (11,0)
S6TRNT	Total response time.	PD (15,3)
S6TRNS	Number of transactions.	PD (11,0)
S6PRTL	Total number of print lines of all System/36 environment jobs.	PD (11,0)
S6PRTP	Total number of print pages of all System/36 environment jobs.	PD (11,0)
S6SPD	Total time System/36 environment jobs were suspended.	PD (11,0)
S6RRT	Total time a System/36 environment job waited during rerouting.	PD (11,0)
S6NEW	Number of started System/36 environment jobs.	PD (11,0)
S6TERM	Number of ended System/36 environment jobs.	PD (11,0)
S6JBCT	Number of System/36 environment jobs.	PD (11,0)
S6PDBR	Total number of physical synchronous database reads by System/36 environment jobs.	PD (11,0)

Field Name	Description	Attribute
S6PNDB	Total number of physical synchronous nondatabase reads by System/36 environment jobs.	PD (11,0)
S6PWRT	Total number of physical synchronous database and nondatabase writes by System/36 environment jobs.	PD (11,0)
S6LDBR	Total number of logical database reads by System/36 environment jobs.	PD (11,0)
S6LDBW	Total number of logical database writes by System/36 environment jobs.	PD (11,0)
S6LDBU	Total number of miscellaneous database operations by System/36 environment jobs.	PD (11,0)
S6CMPT	Total number of communications writes by System/36 environment jobs.	PD (11,0)
S6CMGT	Total number of communications reads by System/36 environment jobs.	PD (11,0)
S6BRG	Reserved	PD (11,0)
S6PRG	Reserved	PD (11,0)
S6NDW	Number of synchronous nondatabase writes: Total number of synchronous physical nondatabase write operations for nondatabase functions by System/36 environment jobs.	PD (11,0)
S6DBW	Number of synchronous database writes: Total number of synchronous physical database write operations for database functions by System/36 environment jobs.	PD (11,0)
S6ANDW	Number of asynchronous nondatabase writes: Total number of asynchronous physical nondatabase write operations for nondatabase functions by System/36 environment jobs.	PD (11,0)
S6ADBW	Number of asynchronous database writes: Total number of asynchronous physical database write operations for database functions by System/36 environment jobs.	PD (11,0)
S6ANDR	Number of asynchronous nondatabase reads: Total number of asynchronous physical nondatabase read operations for nondatabase functions by System/36 environment jobs.	PD (11,0)
S6ADBR	Number of asynchronous database reads: Total number of asynchronous physical database read operations for database functions by System/36 environment jobs.	PD (11,0)
S6PW	Number of permanent writes by System/36 environment jobs.	PD (11,0)
S6CS	Reserved	PD (11,0)
S6PAGF	Number of PAG faults: Total number of times the program access group (PAG) was referred to by System/36 environment jobs, but was not in main storage. The Licensed Internal Code no longer uses process access groups for caching data. Because of this implementation, this field will always be 0 for more current releases.	PD (11,0)
S6EAO	Reserved	PD (11,0)
S6OBIN	Number of binary overflows by System/36 environment jobs.	PD (11,0)
S6ODEC	Number of decimal overflows by System/36 environment jobs.	PD (11,0)
S6OFLP	Number of floating point overflows by System/36 environment jobs.	PD (11,0)
S6IPF	Number of times a System/36 environment job had a page fault on an address that was currently part of an auxiliary storage I/O operation.	PD (11,0)
S6WIO	Number of times a System/36 environment job explicitly waited for outstanding asynchronous I/O operations to complete.	PD (11,0)
S6SKSC	S36E number of socket sends.	PD (11,0)
S6SKBS	S36E number of socket bytes sent.	PD (11,0)

Field Name	Description	Attribute
S6SKRC	S36E number of socket receives.	PD (11,0)
S6SKBR	S36E number of socket bytes received.	PD (11,0)
S6XRFR	S36E file system directory reads.	PD (11,0)
S6XRFW	S36E file system directory writes.	PD (11,0)
S6XSLR	S36E file system symbolic link reads.	PD (11,0)
S6XDYR	S36E directory stream file reads.	PD (11,0)
S6DLCH	S36E file system lookup cache hits.	PD (11,0)
S6DLCM	S36E file system lookup cache misses.	PD (11,0)
S6SZWT	S36E seize/wait time in milliseconds.	PD (11,0)
SECPU	Total processing unit time (in milliseconds) used by communications batch jobs.	PD (11,0)
SERES1	Reserved.	PD (15,3)
SERES2	Reserved.	PD (11,0)
SEPRTL	Total number of print lines of all communications batch jobs.	PD (11,0)
SEPRTTP	Total number of print pages of all communications batch jobs.	PD (11,0)
SESPD	Total time communications batch jobs were suspended.	PD (11,0)
SERRT	Total time a communications batch job waited during rerouting.	PD (11,0)
SENEW	Number of started communications batch jobs.	PD (11,0)
SETERM	Number of ended communications batch jobs.	PD (11,0)
SEJBCT	Number of communications batch jobs.	PD (11,0)
SEPDBR	Total number of physical synchronous database reads by communications batch jobs.	PD (11,0)
SEPNDB	Total number of physical synchronous nondatabase reads by communications batch jobs.	PD (11,0)
SEPWRT	Total number of physical synchronous database and nondatabase writes by communications batch jobs.	PD (11,0)
SELDBR	Total number of logical database reads by communications batch jobs.	PD (11,0)
SELDBW	Total number of logical database writes by communications batch jobs.	PD (11,0)
SELDBU	Total number of miscellaneous database operations by communications batch jobs.	PD (11,0)
SECMPT	Total number of communications writes by communications batch jobs.	PD (11,0)
SECMGT	Total number of communications reads by communications batch jobs.	PD (11,0)
SEBRG	Reserved	PD (11,0)
SEPRG	Reserved	PD (11,0)
SENDW	Number of synchronous nondatabase writes: Total number of synchronous physical nondatabase write operations for nondatabase functions by communications batch jobs.	PD (11,0)
SEDBW	Number of synchronous database writes: Total number of synchronous physical database write operations for database functions by communications batch jobs.	PD (11,0)
SEANDW	Number of asynchronous nondatabase writes: Total number of asynchronous physical nondatabase write operations for nondatabase functions by communications batch jobs.	PD (11,0)

Field Name	Description	Attribute
SEADBW	Number of asynchronous database writes: Total number of asynchronous physical database write operations for database functions by communications batch jobs.	PD (11,0)
SEANDR	Number of asynchronous nondatabase reads: Total number of asynchronous physical nondatabase read operations for nondatabase functions by communications batch jobs.	PD (11,0)
SEADBR	Number of asynchronous database reads: Total number of asynchronous physical database read operations for database functions by communications batch jobs.	PD (11,0)
SEPW	Number of permanent writes by communications batch jobs.	PD (11,0)
SECS	Reserved	PD (11,0)
SEPAGF	Number of PAG faults: Total number of times the program access group (PAG) was referred to by communications batch jobs, but was not in main storage. The Licensed Internal Code no longer uses process access groups for caching data. Because of this implementation, this field will always be 0 for more current releases.	PD (11,0)
SEEAO	Reserved	PD (11,0)
SEOBIN	Number of binary overflows by communications batch jobs.	PD (11,0)
SEODEC	Number of decimal overflows by communications batch jobs.	PD (11,0)
SEOFLP	Number of floating point overflows by communications batch jobs.	PD (11,0)
SEIPF	Number of times a communications batch job had a page fault on an address that was currently part of an auxiliary storage I/O operation.	PD (11,0)
SEWIO	Number of times a communications batch job explicitly waited for outstanding asynchronous I/O operations to complete.	PD (11,0)
SESKSC	Evoke number of socket sends.	PD (11,0)
SESKBS	Evoke number of socket bytes sent.	PD (11,0)
SESKRC	Evoke number of socket receives.	PD (11,0)
SESKBR	Evoke number of socket bytes received.	PD (11,0)
SEXFR	Evoke file system directory reads.	PD (11,0)
SEXRFW	Evoke file system stream file writes.	PD (11,0)
SEXSLR	Evoke file system symbolic link reads.	PD (11,0)
SEXDYR	Evoke stream file reads.	PD (11,0)
SEDLCH	Evoke file system lookup cache hits.	PD (11,0)
SEDLCM	Evoke file system lookup cache misses.	PD (11,0)
SESZWT	Evoke seize/wait time in milliseconds.	PD (11,0)
SACPU	Total processing unit time (in milliseconds) used by autostart jobs.	PD (11,0)
SARES1	Reserved.	PD (15,3)
SARES2	Reserved.	PD (11,0)
SAPRTL	Total number of print lines of all autostart jobs.	PD (11,0)
SAPRTP	Total number of print pages of all autostart jobs.	PD (11,0)
SASPD	Total time autostart jobs were suspended.	PD (11,0)
SARRT	Total time an autostart job waited during rerouting.	PD (11,0)
SANEW	Number of started autostart jobs.	PD (11,0)
SATERM	Number of ended autostart jobs.	PD (11,0)

Field Name	Description	Attribute
SAJBCT	Number of autostart jobs.	PD (11,0)
SAPDBR	Total number of physical synchronous database reads by autostart jobs.	PD (11,0)
SAPNDB	Total number of physical synchronous nondatabase reads by autostart jobs.	PD (11,0)
SAPWRT	Total number of physical synchronous database and nondatabase writes by autostart jobs.	PD (11,0)
SALDBR	Total number of logical database reads by autostart jobs.	PD (11,0)
SALDBW	Total number of logical database writes by autostart jobs.	PD (11,0)
SALDBU	Total number of miscellaneous database operations by autostart jobs.	PD (11,0)
SACMPT	Total number of communications writes by autostart jobs.	PD (11,0)
SACMGT	Total number of communications reads by autostart jobs.	PD (11,0)
SABRG	Reserved	PD (11,0)
SAPRG	Reserved	PD (11,0)
SANDW	Number of synchronous nondatabase writes: Total number of synchronous physical nondatabase write operations for nondatabase functions by communications batch jobs.	PD (11,0)
SADBW	Number of synchronous database writes: Total number of synchronous physical database write operations for database functions by autostart jobs.	PD (11,0)
SAANDW	Number of asynchronous nondatabase writes: Total number of asynchronous physical nondatabase write operations for nondatabase functions by autostart jobs.	PD (11,0)
SAADBW	Number of asynchronous database writes: Total number of asynchronous physical database write operations for database functions by autostart jobs.	PD (11,0)
SAANDR	Number of asynchronous nondatabase reads: Total number of asynchronous physical nondatabase read operations for nondatabase functions by autostart jobs.	PD (11,0)
SAADBR	Number of asynchronous database reads: Total number of asynchronous physical database read operations for database functions by autostart jobs.	PD (11,0)
SAPW	Number of permanent writes by autostart jobs.	PD (11,0)
SACS	Reserved	PD (11,0)
SAPAGF	Number of PAG faults: Total number of times the program access group (PAG) was referred to by autostart jobs, but was not in main storage. The Licensed Internal Code no longer uses process access groups for caching data. Because of this implementation, this field will always be 0 for more current releases.	PD (11,0)
SAEAO	Reserved	PD (11,0)
SAOBIN	Number of binary overflows by autostart jobs.	PD (11,0)
SAODEC	Number of decimal overflows by autostart jobs.	PD (11,0)
SAOFLP	Number of floating point overflows by autostart jobs.	PD (11,0)
SAIPF	Number of times an autostart job had a page fault on an address that was currently part of an auxiliary storage I/O operation.	PD (11,0)
SAWIO	Number of times an autostart job explicitly waited for outstanding asynchronous I/O operations to complete.	PD (11,0)
SASKSC	Autostart number of socket sends.	PD (11,0)
SASKBS	Autostart number of socket bytes sent.	PD (11,0)
SASKRC	Autostart number of socket receives.	PD (11,0)
SASKBR	Autostart number of socket bytes received.	PD (11,0)

Field Name	Description	Attribute
SAXRFR	Autostart stream file reads.	PD (11,0)
SAXRFW	Autostart stream file writes.	PD (11,0)
SAXSLR	Autostart file system symbolic link reads.	PD (11,0)
SAXDYR	Autostart file system directory reads.	PD (11,0)
SADLCH	Autostart file system lookup cache hits.	PD (11,0)
SADLCM	Autostart file system lookup cache misses.	PD (11,0)
SASZWT	Autostart seize/wait time in milliseconds.	PD (11,0)
SBCPU	Total processing unit time (in milliseconds) used by batch jobs.	PD (11,0)
SBRES1	Reserved.	PD (15,3)
SBRES2	Reserved.	PD (11,0)
SBPRTL	Total number of print lines of all batch jobs.	PD (11,0)
SBPRTP	Total number of print pages of all batch jobs.	PD (11,0)
SBSPD	Total time batch jobs were suspended.	PD (11,0)
SBRRT	Total time a batch job waited during rerouting.	PD (11,0)
SBNEW	Number of started batch jobs.	PD (11,0)
SBTERM	Number of ended batch jobs.	PD (11,0)
SBJBCT	Number of batch jobs.	PD (11,0)
SBPDBR	Total number of physical synchronous database reads by batch jobs.	PD (11,0)
SBPNDB	Total number of physical synchronous nondatabase reads by batch jobs.	PD (11,0)
SBPWRT	Total number of physical synchronous database and nondatabase writes by batch jobs.	PD (11,0)
SBLDBR	Total number of logical database reads by batch jobs.	PD (11,0)
SBLDBW	Total number of logical database writes by batch jobs.	PD (11,0)
SBLDBU	Total number of miscellaneous database operations by batch jobs.	PD (11,0)
SBCMPT	Total number of communications writes by batch jobs.	PD (11,0)
SBCMGT	Total number of communications reads by batch jobs.	PD (11,0)
SBBRG	Reserved	PD (11,0)
SBPRG	Reserved	PD (11,0)
SBNDW	Number of synchronous nondatabase writes: Total number of synchronous physical nondatabase write operations for nondatabase functions by batch jobs.	PD (11,0)
SBDBW	Number of synchronous database writes: Total number of synchronous physical database write operations for database functions by batch jobs.	PD (11,0)
SBANDW	Number of asynchronous nondatabase writes: Total number of asynchronous physical nondatabase write operations for nondatabase functions by batch jobs.	PD (11,0)
SBADBW	Number of asynchronous database writes: Total number of asynchronous physical database write operations for database functions by batch jobs.	PD (11,0)
SBANDR	Number of asynchronous nondatabase reads: Total number of asynchronous physical nondatabase read operations for database functions by batch jobs.	PD (11,0)
SBADBR	Number of asynchronous database reads: Total number of asynchronous physical database read operations for database functions by batch jobs.	PD (11,0)
SBPW	Number of permanent writes by batch jobs.	PD (11,0)
SBCS	Reserved	PD (11,0)

Field Name	Description	Attribute
SBPAGF	Number of PAG faults: Total number of times the program access group (PAG) was referred to by batch jobs, but was not in main storage. The Licensed Internal Code no longer uses process access groups for caching data. Because of this implementation, this field will always be 0 for more current releases.	PD (11,0)
SBEAO	Reserved	PD (11,0)
SBOBIN	Number of binary overflows by batch jobs.	PD (11,0)
SBODEC	Number of decimal overflows by batch jobs.	PD (11,0)
SBOFLP	Number of floating point overflows by batch jobs.	PD (11,0)
SBIPF	Number of times a batch job had a page fault on an address that was currently part of an auxiliary storage I/O operation.	PD (11,0)
SBWIO	Number of times a batch job explicitly waited for outstanding asynchronous I/O operations to complete.	PD (11,0)
SBSKSC	Batch number of socket sends.	PD (11,0)
SBSKBS	Batch number of socket bytes received.	PD (11,0)
SBSKRC	Batch number of socket receives.	PD (11,0)
SBSKBR	Batch number of socket bytes received.	PD (11,0)
SBXRFR	Batch stream file reads.	PD (11,0)
SBXRFW	Batch stream file writes.	PD (11,0)
SBXSLR	Batch file system symbolic link reads.	PD (11,0)
SBXDYR	Batch file system directory reads.	PD (11,0)
SBDLCH	Batch file system lookup cache hits.	PD (11,0)
SBDLCM	Batch file system lookup cache misses.	PD (11,0)
SBSZWT	Batch seize/wait time in milliseconds.	PD (11,0)
SICPU	Total processing unit time (in milliseconds) used by interactive jobs.	PD (11,0)
SITRNT	Total transaction time by interactive jobs.	PD (15,3)
SITRNS	Total number of transactions by interactive jobs.	PD (11,0)
SIPRTL	Total number of print lines of all interactive jobs.	PD (11,0)
SIPRTP	Total number of print pages of all interactive jobs.	PD (11,0)
SISPD	Total time interactive jobs were suspended.	PD (11,0)
SIRRT	Total time an interactive job waited during rerouting.	PD (11,0)
SINEW	Number of started interactive jobs.	PD (11,0)
SITERM	Number of ended interactive jobs.	PD (11,0)
SIJBCT	Number of interactive jobs.	PD (11,0)
SIPDBR	Total number of physical synchronous database reads by interactive jobs.	PD (11,0)
SIPNDB	Total number of physical synchronous nondatabase reads by interactive jobs.	PD (11,0)
SIPWRT	Total number of physical synchronous database and nondatabase writes by interactive jobs.	PD (11,0)
SILDBR	Total number of logical database reads by interactive jobs.	PD (11,0)
SILDBW	Total number of logical database writes by interactive jobs.	PD (11,0)
SILDBU	Total number of miscellaneous database operations by interactive jobs.	PD (11,0)
SICMPT	Total number of communications writes by interactive jobs.	PD (11,0)
SICMGT	Total number of communications reads by interactive jobs.	PD (11,0)


Field Name	Description	Attribute
SIBRG	Reserved	PD (11,0)
SIPRG	Reserved	PD (11,0)
SINDW	Number of synchronous nondatabase writes: Total number of synchronous physical nondatabase write operations for nondatabase functions by interactive jobs.	PD (11,0)
SIDBW	Number of synchronous database writes: Total number of synchronous physical database write operations for database functions by interactive jobs.	PD (11,0)
SIANDW	Number of asynchronous nondatabase writes: Total number of asynchronous physical nondatabase write operations for nondatabase functions by interactive jobs.	PD (11,0)
SIADBW	Number of asynchronous database writes: Total number of asynchronous physical database write operations for database functions by interactive jobs.	PD (11,0)
SIANDR	Number of asynchronous nondatabase reads: Total number of asynchronous physical nondatabase read operations for nondatabase functions by interactive jobs.	PD (11,0)
SIADBR	Number of asynchronous database reads: Total number of asynchronous physical database read operations for database functions by interactive jobs.	PD (11,0)
SIPW	Number of permanent writes by interactive jobs.	PD (11,0)
SICS	Reserved	PD (11,0)
SIPAGF	Number of PAG faults: Total number of times the program access group (PAG) was referred to by interactive jobs but was not in main storage. The Licensed Internal Code no longer uses process access groups for caching data. Because of this implementation, this field will always be 0 for more current releases.	PD (11,0)
SIEAO	Reserved	PD (11,0)
SIOBIN	Number of binary overflows by interactive jobs.	PD (11,0)
SIODEC	Number of decimal overflows interactive jobs.	PD (11,0)
SIOFLP	Number of floating point overflows by interactive jobs.	PD (11,0)
SIIPF	Number of times an interactive job had a page fault on an address that was currently part of an auxiliary storage I/O operation.	PD (11,0)
SIWIO	Number of times an interactive job explicitly waited for outstanding asynchronous I/O operations to complete.	PD (11,0)
SISKSC	Interactive number of socket sends.	PD (11,0)
SISKBS	Interactive number of socket bytes sent.	PD (11,0)
SISKRC	Interactive number of socket receives.	PD (11,0)
SISKBR	Interactive number of socket bytes received.	PD (11,0)
SIXRFR	Interactive stream file reads.	PD (11,0)
SIXRFW	Interactive stream file writes.	PD (11,0)
SIXSLR	Interactive file system symbolic link reads.	PD (11,0)
SIXDYR	Interactive file system directory reads.	PD (11,0)
SIDLCH	Interactive file lookup cache hits.	PD (11,0)
SIDLCM	Interactive file lookup cache misses.	PD (11,0)
SISZWT	Interactive seize/wait time in milliseconds.	PD (11,0)
SXCPU	Total processing unit time (in milliseconds) used by the start CPF (SCPF) job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXRES1	Reserved.	PD (15,3)



Field Name	Description	Attribute
SXRES2	Reserved.	PD (11,0)
SXPRTL	Total number of print lines of the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXP RTP	Total number of print pages of the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXSPD	Total time the SCPF job, spool reader jobs, or spool writer jobs were suspended.	PD (11,0)
SXRR T	Total time the SCPF job, spool reader jobs, or spool writer jobs waited during rerouting.	PD (11,0)
SXNEW	Number of started SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXTERM	Number of ended SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXJBCT	Number of SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXPDBR	Total number of physical synchronous database reads by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXP NDB	Total number of physical synchronous nondatabase reads by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXPWRT	Total number of physical synchronous database and nondatabase writes by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXLDBR	Total number of logical database reads by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXLDBW	Total number of logical database writes by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXLDBU	Total number of miscellaneous database operations by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXCMPT	Total number of communications writes by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXCMGT	Total number of communications reads by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXBRG	Reserved	PD (11,0)
SXPRG	Reserved	PD (11,0)
SXNDW	Number of synchronous nondatabase writes: Total number of synchronous physical nondatabase write operations for nondatabase functions by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXD BW	Number of synchronous database writes: Total number of synchronous physical database write operations for database functions by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXANDW	Number of asynchronous nondatabase writes: Total number of asynchronous physical nondatabase write operations for database functions by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXAD BW	Number of asynchronous database writes: Total number of asynchronous physical database write operations for database functions by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXANDR	Number of asynchronous nondatabase reads: Total number of asynchronous physical nondatabase read operations for nondatabase functions by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXAD BR	Number of asynchronous database reads: Total number of asynchronous physical database read operations for database functions by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)

Field Name	Description	Attribute
SXPW	Number of permanent writes by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXCS	Reserved	PD (11,0)
SXPAGF	Number of PAG faults: Total number of times the program access group (PAG) was referred to by the SCPF job, spool reader jobs, or spool writer jobs, but was not in main storage. The Licensed Internal Code no longer uses process access groups for caching data. Because of this implementation, this field will always be 0 for more current releases.	PD (11,0)
SXEAO	Reserved	PD (11,0)
SXOBIN	Number of binary overflows by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXODEC	Number of decimal overflows by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXOFLP	Number of floating point overflows by the SCPF job, spool reader jobs, or spool writer jobs.	PD (11,0)
SXIPF	Number of times the SCPF job or spool reader or spool writer job had a page fault on an address that was currently part of an auxiliary storage I/O operation.	PD (11,0)
SXWIO	Number of times the SCPF job or spool reader or spool writer job explicitly waited for outstanding asynchronous I/O operations to complete.	PD (11,0)
SXSKSC	Spool number of socket sends.	PD (11,0)
SXSKBS	Spool number of socket bytes sent.	PD (11,0)
SXSKRC	Spool number of socket receives.	PD (11,0)
SXSKBR	Spool number of socket bytes received.	PD (11,0)
SXXRFR	Spool stream file reads.	PD (11,0)
SXXRFW	Spool stream file writes.	PD (11,0)
SXXSLR	Spool file system symbolic link reads.	PD (11,0)
SXXDYR	Spool file system directory reads.	PD (11,0)
SXXDLCH	Spool file system lookup cache hits.	PD (11,0)
SXXDLCM	Spool file system lookup cache misses.	PD (11,0)
SXSZWT	Spool seize/wait time in milliseconds.	PD (11,0)
SHCPU	Total processing unit time (in milliseconds) used by microcode/system jobs.	PD (11,0)
SMPLP	Machine pool paging: Number of pages transferred in and out of machine pool.	PD (11,0)
SMUPL	Highest user pool paging: Highest number of pages transferred in and out of any user pool.	PD (11,0)
SUPLI	Pool with highest paging: Pool number with highest number of pages transferred in and out.	C (2)
SMXDU	Maximum disk utilization. The largest utilization of all single path disk units and all paths of multipath disk units.	PD (11,0)
SMXDUI	Actuator with maximum utilization.	C (4)
SMMMRT	Time (in seconds) spent at MRTMAX by all MRT requests.	PD (11,0)
SMME	Number of requesters that routed to a MRT.	PD (11,0)
SYFOPN	Number of full opens system wide.	PD (11,0)
SYIXRB	Number of index rebuilds system wide.	PD (11,0)

Field Name	Description	Attribute
SYJOXR	Start journal operations initiated by user.	PD (11,0)
SYJOXP	Stop journal operations initiated by user.	PD (11,0)
SYJOIR	Start journal operations initiated by system.	PD (11,0)
SYJOIP	Stop journal operations initiated by system.	PD (11,0)
SYJOXD	Journal deposits resulting from user-journaled objects.	PD (11,0)
SYJOID	Journal deposits resulting from system-journaled objects.	PD (11,0)
SYJOJP	Journal deposits resulting from system-journaled objects to user-created journals.	PD (11,0)
SYJOBJ	Bundle writes to user-created journals.	PD (11,0)
SYJOBDB	Bundle writes to internal system journals.	PD (11,0)
SYJOJY	Exposed access paths currently being journaled by the system.	PD (11,0)
SYJOJN	Exposed access paths currently not being journaled.	PD (11,0)
SYJOSE	System-estimated access path recovery time exposure in milliseconds.	PD (11,0)
SYJORT	System-managed access path tuning adjustments.	PD (11,0)
SYJOND	System-estimated access path recovery time exposure in milliseconds if no access paths were being journaled by the system.	PD (11,0)
SYSCPU	Total processing time (in milliseconds) used by the first (or only) processing unit.	PD (9,0)
SYCPU2....4	Total processing time (in milliseconds) used by the second....fourth processing unit. This value is zero if there is no processing unit with this number on the system.	PD (9,0)
SYCP5....32	Total processing time (in milliseconds) used by the fifth....thirty-second processing unit. This value is zero if there is no processing unit with this number on the system.	PD (9,0)
SYHEAO	Number of tolerated crossings of a 16 MB boundary within any teraspace. Also called teraspace EAO exceptions.	PD (11,0)
SYHFST	Number of space address computations (not addressing teraspace) that required extra processing. This may occur when a subtraction or addition of a signed value causes a result that is within the first page of a space object or associated space for which the machine did not choose alignment. Also called false traps.	PD (11,0)
SYHFTH	Number of teraspace address computations that required extra processing. This occurs when a subtraction or addition of a signed value causes a result that is within the first page after any 16 MB boundary in teraspace. Also called false traps.	PD (11,0)
SYIFUS	Interactive CPU time. Total interactive CPU used (in milliseconds).	PD (9,0)
SYIFTE	Interactive CPU time over threshold. Interactive CPU used (in milliseconds) when exceeding interactive CPU threshold.	PD (9,0)
SYSDBC	Database CPU time. Total CPU time (in milliseconds) used for database processing.	PD (9,0)
SYSSWC	Secondary Workload CPU time. Total CPU time (in milliseconds) of all jobs that perform workloads that cannot fully exploit dedicated server resources.	PD (9,0)
SYLPTB	LPAR time base. This field provides a way to determine the difference between the system clocks on different partitions of a single system. This field has no meaning when looked at on a stand-alone basis. However, when this value is established on two (or more) partitions of a system, the difference between these values is the time difference (in seconds) between the two partitions.	PD (11,0)

Field Name	Description	Attribute
SYNUAL	Noncached user authority lookups. The number of times that a noncached user authority lookup was performed. An authority check for one object can result in zero, one, or more than one user authority lookups. A user authority lookup can occur for the user, the user's groups, or an adopted user and can be cached or noncached.	PD (15,0)
SYIFTA	Interactive CPU time available. The amount of interactive CPU time that was available for use within the partition. This is the interactive capacity configured for use within the partition (also represented as interactive threshold).	PD (11,0)
SYSPTU	CPU time used. Total processing time (in milliseconds) used by the partition	PD (11,0)
SYSCTA	Configured CPU time available. Total processing time (in milliseconds) that was configured or guaranteed to be available for this partition. This is the system processing capacity as determined by processor unit allocations during the interval. Note: For uncapped partitions, the actual CPU used can exceed this value.	PD (11,0)
SYSUTA	Uncapped CPU time available. Total processing time (in milliseconds) that was available for use by this partition (adjusted for configuration changes over time). It includes both the guaranteed configured capacity as well as the shared pool time that was not used by other partitions. For capped and dedicated partitions, or if shared pool data is not available, this is the same as Uncapped CPU time configured (SYSUTC).	PD (11,0)
SYSUTC	Uncapped CPU time configured. The maximum amount of CPU time that this partition is configured (allowed) to use within the shared pool (adjusted for configuration changes over time). This field defines the minimum of the virtual processors configured and the configured shared pool processors. For capped and dedicated partitions, this is the same as configured CPU time available (SYSCTA).	PD (11,0)
SYSPLU	Shared pool CPU time used. Total amount of CPU used within the shared pool by all partitions that share the pool. Set to zero if a shared pool is not used or the data is not available.	PD (11,0)
SYSPLA	Shared pool CPU time available. Total amount of CPU available within the shared pool. This value is determined based on the number of physical processors that are allocated to the pool. Set to zero if a shared pool is not used or the data is not available.	PD (11,0) 

## Performance data files: QAPMSYSCPU

This file reports utilization for all processing units. For information about how Collection Services generates this file and where the data comes from, refer to "Performance data files: Collection Services system category and file relationships" on page 4.

The individual CPU data reported in this file is no longer scaled. See Reporting CPU utilization for more information.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
DTECEN	Century digit.	C (1)

Field Name	Description	Attribute
SCTNUM	▶ Total number of system CPUs reported. The number of reported CPUs can include CPUs that are not currently in use because of configuration changes. Field SCTACT contains the number of active processors. ◀◀	Z (3,0)
SCBGN	CPU number of the first CPU reported in this record.	Z (3,0)
SCPU01....32	Total processing time (in milliseconds) used by CPUs 1 to 32.	PD (9,0)
SCIFUS	Interactive CPU time. Total interactive CPU used (in milliseconds).	PD (9,0)
SCIFTE	Interactive CPU time over threshold. Interactive CPU used (in milliseconds) when exceeding interactive CPU threshold.	PD (9,0)
▶ SCTACT	Current number of active processors at the time the data was sampled.	Z (3,0) ◀◀

## Performance data files: QAPMSYSTEM

This file reports system-wide performance data. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
DTECEN	Century digit.	C (1)
SYDPGF	Directory page faults: Number of times a page of the auxiliary storage directory was transferred to main storage for a look-up or an allocation operation.	PD (11,0)
SYAPGF	Access group member page faults: Number of times a page of an object contained in an access group was transferred to main storage independently of the access group. This transfer occurs when the containing access group was purged, or because portions of the containing access group are displaced from main storage.	PD (11,0)
SYMPGF	Microcode page faults: Number of times a page of microcode was transferred to main storage.	PD (11,0)
SYMCTR	Microtask read operations: Number of transfers of one or more pages of data from auxiliary storage because of a microtask rather than a process.	PD (11,0)
SYMCTW	Microtask write operations: Number of transfers of one or more pages of data from main storage to auxiliary storage because of a microtask rather than a process.	PD (11,0)
SYSASP	System auxiliary storage pool space available: Number of bytes of space on auxiliary storage available for allocation in the system ASP that is not currently assigned to machine interface (MI) objects or internal machine functions.	PD (15,0)
SYPRMW	Permanent data transferred from main storage: Number of 512-byte blocks of permanent data transferred from main storage to the system ASP in auxiliary storage since the last sample.	PD (11,0)
SYSIZC	Size count: Total number of size exceptions.	PD (11,0)
SYDECD	Decimal data count: Total number of decimal data exceptions.	PD (11,0)
SYSEZC	Seize count: Total number of seize wait exceptions.	PD (11,0)
SYSZWT	Seize/wait time in milliseconds.	PD (11,0)


Field Name	Description	Attribute
SYSYNL	Synchronous lock conflict count.	PD (11,0)
SYASYL	Asynchronous lock conflict count.	PD (11,0)
SYVFYC	Verify count.	PD (11,0)
SYAUTH	» Object authority checks. The number of times that authority was checked for objects. An authority check for one object can result in zero, one, or more than one user authority lookups that can be cached or noncached (see SYNUAL field description). «	PD (11,0)
SYEXPN	Total number of exceptions.	PD (11,0)
SYLRT1	Transactions in first response time monitor bracket: Total number of local workstation transactions with response time less than the value of boundary 1 specified on the Advanced Local Response Time Options dialog from the Collection Services properties page within the iSeries <sup>(TM)</sup> Navigator interface.	PD (9,0)
SYLRT2	Transactions in second response time monitor bracket: Total number of local workstation transactions with response time less than the value of boundary 2 and greater than the value of boundary 1 specified on the Advanced Local Response Time Options dialog from the Collection Services properties page within the iSeries Navigator interface.	PD (9,0)
SYLRT3	Transactions in third response time monitor bracket: Total number of local workstation transactions with response time less than the value of boundary 3 and greater than the value of boundary 2 specified on the Advanced Local Response Time Options dialog from the Collection Services properties page within the iSeries Navigator interface.	PD (9,0)
SYLRT4	Transactions in fourth response time monitor bracket: Total number of local workstation transactions with response time less than the value of boundary 4 and greater than the value of boundary 3 specified on the Advanced Local Response Time Options dialog from the Collection Services properties page within the iSeries Navigator interface.	PD (9,0)
SYLRT5	Transactions in fifth response time monitor bracket: Total number of local workstation transactions with response time greater than the value of boundary 4 specified on the Advanced Local Response Time Options dialog from the Collection Services properties page within the iSeries Navigator interface.	PD (9,0)
SHCPU	Total processing unit time (in milliseconds) used by microcode/system jobs.	PD (11,0)
SMPLP	Machine pool paging: Number of pages transferred in and out of machine pool.	PD (11,0)
SMUPL	Highest user pool paging: Highest number of pages transferred in and out of any user pool.	PD (11,0)
SUPLI	Pool with highest paging: Pool number with highest number of pages transferred in and out.	C (2)
SMXDU	» Maximum disk utilization. The largest utilization of all single path disk units and all paths of multipath disk units. «	PD (11,0)
SMXDUI	Actuator with maximum utilization.	C (4)
SMMMT	Time (in seconds) spent at MRTMAX by all MRT requests.	PD (11,0)
SMME	Number of requesters that routed to an MRT.	PD (11,0)
SYFOPN	Number of full opens system wide.	PD (11,0)
SYIXRB	Number of index rebuilds system wide.	PD (11,0)
SYJOXR	Start journal operations initiated by user.	PD (11,0)
SYJOXP	Stop journal operations initiated by user.	PD (11,0)
SYJOIR	Start journal operations initiated by system.	PD (11,0)

Field Name	Description	Attribute
SYJOIP	Stop journal operations initiated by system.	PD (11,0)
SYJOXD	Journal deposits resulting from user-journaled objects.	PD (11,0)
SYJOID	Journal deposits resulting from system-journaled objects.	PD (11,0)
SYJOJP	Journal deposits resulting from system-journaled objects to user-created journals.	PD (11,0)
SYJOBJ	Bundle writes to user-created journals.	PD (11,0)
SYJOBDB	Bundle writes to internal system journals.	PD (11,0)
SYJOJY	Exposed access paths currently being journaled by the system.	PD (11,0)
SYJOJN	Exposed access paths currently not being journaled.	PD (11,0)
SYJOSE	System-estimated access path recovery time exposure in milliseconds.	PD (11,0)
SYJORT	System-managed access path tuning adjustments.	PD (11,0)
SYJOND	System-estimated access path recovery time exposure in milliseconds if no access paths were being journaled by the system.	PD (11,0)
SYHEAO	Number of tolerated crossings of a 16 MB boundary within any teraspace. Also called teraspace EAO exceptions.	PD (11,0)
SYHFTS	Number of space address computations (not addressing teraspace) that required extra processing. This may occur when a subtraction or addition of a signed value causes a result that is within the first page of a space object or associated space for which the machine did not choose alignment. Also called false traps.	PD (11,0)
SYHFTH	Number of teraspace address computations that required extra processing. This occurs when a subtraction or addition of a signed value causes a result that is within the first page after any 16 MB boundary in teraspace. Also called false traps.	PD (11,0)
SYSDBC	Database CPU time. The amount of CPU time (in milliseconds) used for database processing.	PD (9,0)
SYSSWC	Secondary workload CPU time. The aggregate CPU time (in milliseconds) of all jobs performing workloads that cannot fully exploit dedicated server resources.	PD (9,0)
SYJOER	Number of SMAPP evaluations requested. This count reveals how many times implicitly journaled objects were examined for potential SMAPP eligibility alterations. The evaluation can result in one of three outcomes: 1 - no action; 2 - start protecting this index via SMAPP; 3 - cease protecting this index via SMAPP.	PD (11,0)
SYJOES	Number of SMAPP evaluations serviced. This is a count of evaluations which led to a decision to change the protection state for a related index.	PD (11,0)
SYJOIB	Number of SMAPP index build time estimations. The number of times background SLIC tasks have been asked to look at database keyed logical files or SQL indexes in order to estimate how long it will take to rebuild the index from scratch. Indexes whose estimated rebuild times are large will be SMAPPed. A large count here suggests that applications are frequently opening and closing files.	PD (11,0)
SYJOS1	First journal entry type. This field reports the most frequently occurring among the various journal entry types that have caused the SLIC layer of journal code to empty the journal cache prematurely. The number of bundles forced by this entry type is reported in the field SYJOC1.	C (2)
SYJOC1	Number of journal bundles forced prematurely by the journal entry type reported in the field SYJOS1.	PD (15,0)

Field Name	Description	Attribute
SYJOS2	Second journal entry type. This field reports the second most frequently occurring among the various journal entry types that have caused the SLIC layer of journal code to empty the journal cache prematurely. The number of bundles forced by this entry type is reported in the field SYJOC2.	C (2)
SYJOC2	Number of journal bundles forced prematurely by the journal entry type reported in the field SYJOS2.	PD (15,0)
SYJOS3	Third journal entry type. This field reports the third most frequently occurring among the various journal entry types that have caused the SLIC layer of journal code to empty the journal cache prematurely. The number of bundles forced by this entry type is reported in the field SYJOC3.	C (2)
SYJOC3	Number of journal bundles forced prematurely by the journal entry type reported in the field SYJOS3.	PD (15,0)
SYSDNFE	The number of stream files which have been written to, but not forced to permanent storage. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (11,0)
SYSDNFO	The number of stream files currently exposed that have exceeded the target exposure time. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (11,0)
SYSDTET	Exposure time (in milliseconds). The number of milliseconds between the time a stream file is written to and the time the file is forced to permanent storage. This time is a total for all files that were exposed during the interval. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (15,0)
SYSDNST	The number of tasks running that are forcing stream files to permanent storage. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (5,0)
SYSDFAL	The number of stream files that have been exposed and needed to be forced. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (11,0)
SYSDFRL	The total number of stream files that have been asynchronously forced to permanent storage. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (11,0)
SYSDPFD	The number of stream file pages that have been asynchronously forced to permanent storage. This count does not include pages forced by an fsync operation. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (15,0)
SYSDPFF	The number of stream file pages explicitly forced to permanent storage as a result of an fsync operation. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (15,0)
SYBTAC	The number of asynchronous clear operations performed. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (11,0)



Field Name	Description	Attribute
SYBTAP	The number of asynchronous prebring operations performed. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (11,0)
SYBTAPP	The number of parallel prebring operations performed. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (11,0)
SYBTAPC	The number of asynchronous create operations performed. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (11,0)
SYBTAPD	The number of asynchronous delete operations performed. This count includes files in the Root, QOpenSys, QDLS, QOPT (when the files are on a volume that is not formatted in Universal Disk Format (UDS)) and user-defined file systems.	PD (11,0)
SYLPTB	LPAR time base. This field provides a way to determine the difference between the system clocks on different partitions of a single system. This field has no meaning when looked at on a stand-alone basis. However, when this value is established on two (or more) partitions of a system, the difference between these values is the time difference (in seconds) between the two partitions.	B (11,0)
» SYNUAL	Noncached user authority lookups. The number of times that a noncached user authority lookup was performed. An authority check for one object can result in zero, one, or more than one user authority lookups. A user authority lookup can occur for the user, the user's groups, or an adopted user and can be cached or noncached.	PD (15,0)
SYIFUS	Interactive CPU time used. Total interactive CPU used (in milliseconds).	PD (9,0)
SYIFTE	Interactive CPU time used over threshold. Interactive CPU used (in milliseconds) when exceeding interactive CPU threshold.	PD (9,0)
SYIFTA	Interactive CPU time available. The amount of interactive CPU time that was available for use within the partition. This is the interactive capacity configured for use within the partition (also represented as interactive threshold).	PD (11,0)
SYSPTU	CPU time used. Total processing time (in milliseconds) used by the partition	PD (11,0)
SYSCTA	» Total CPU time configured for the partition. Total processing time (in milliseconds) that was configured or guaranteed for this partition. This is the system processing capacity as determined by processor unit allocations during the interval. Note: For uncapped partitions, the actual CPU used can exceed this value. «	PD (11,0)
SYSUTA	» CPU time that could have been used by this partition. Total processing time (in milliseconds) that could have been used by this partition (adjusted for configuration changes over time). It includes both the guaranteed configured capacity as well as the shared pool time that was not used by other partitions. For capped and dedicated partitions, or if shared pool data is not available, this is the same as Uncapped CPU time configured. «	PD (11,0)
SYSUTC	Uncapped CPU time configured. The maximum amount of CPU time that this partition is configured (allowed) to use within the shared pool (adjusted for configuration changes over time). This field defines the Minimum of the virtual processors configured and the configured shared pool processors. » For capped and dedicated partitions, this is the same as total CPU time configured for the partition. «	PD (11,0)
SYSPLU	Shared pool CPU time used. Total amount of CPU used within the shared pool by all partitions that share the pool. Set to zero if a shared pool is not used or the data is not available.	PD (11,0)

Field Name	Description	Attribute
SYSPLA	Shared pool CPU time available. Total amount of CPU available within the shared pool. This value is determined based on the number of physical processors that are allocated to the pool. Set to zero if a shared pool is not used or the data is not available.	PD (11,0) 
SYJDUM	Reserved.	PD (1,0)
SYJDDM	Reserved.	C (3)
SYJCA4	Reserved.	C (3)
SYJPAS	Reserved.	C (3)
SYJMRT	Reserved.	C (3)
SYJS6E	Reserved.	C (3)
SYJCME	Reserved.	C (3)
SYJAUT	Reserved.	C (3)
SYJBCH	Reserved.	C (3)
SYJINT	Reserved.	C (3)
SYJSPL	Reserved.	C (3)

## Performance data files: QAPMTCP

This file contains system-wide TCP/IP data. There will be one record per collection interval. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

**Note:** The TCP/IP performance data does not include data for Internet Protocol version 6 (IPv6).

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss). The date and time of the sample interval.	C (12)
INTSEC	Number of seconds TCP/IP was active in this sample interval.	PD (7,0)
DTECEN	Century digit.	C (1)
TCDIRV	Number of input datagrams received from interfaces, including those received in error.	PD (15,0)
TCDIHE	Number of input datagrams discarded due to errors in their IP headers.	PD (11,0)
TCDIAE	Number of input datagrams discarded due to an address that is not valid in the IP headers.	PD (11,0)
TCDIUP	Number of input datagrams discarded due to unknown or unsupported protocol.	PD (11,0)
TCDIDS	Number of input datagrams discarded due to other problems (for example, lack of buffer space).	PD (11,0)
TCDIFW	Number of datagrams forwarded, including Source-Routed through this system.	PD (15,0)
TCDIDL	Number of input datagrams successfully delivered to IP user-protocols (including ICMP).	PD (15,0)
TCDOTR	Number of datagrams which IP user-protocols supplied for transmission (including ICMP).	PD (15,0)

Field Name	Description	Attribute
TCDONR	Number of output datagrams discarded because no route was found to transmit them to their destination.	PD (11,0)
TCDODS	Number of output datagrams discarded due to other problems (for example, lack of buffer space).	PD (11,0)
TCASMR	Number of IP fragments received which needed reassembly.	PD (15,0)
TCASMS	Number of datagrams successfully reassembled.	PD (15,0)
TCASMF	Number of failures detected by the reassembly algorithm.	PD (11,0)
TCFRGS	Number of datagrams successfully fragmented.	PD (15,0)
TCFRGF	Number of fragmentation failures.	PD (11,0)
TCFRGN	Number of datagram fragments generated.	PD (15,0)
TCAOPN	Number of times TCP connections made a transition from CLOSED state to SYN-SENT state.	PD (11,0)
TCPOPN	Number of times TCP connections made a transition from LISTEN state to SYN-RCVD state.	PD (11,0)
TCFOPN	Number of times TCP connection establishment attempts failed.	PD (11,0)
TCCRST	Number of times TCP connection was reset.	PD (11,0)
TCSGRV	Number of TCP segments received.	PD (15,0)
TCSGTR	Number of TCP segments sent.	PD (15,0)
TCSGRT	Number of TCP segments retransmitted.	PD (11,0)
TCSGER	Number of TCP segments received in error.	PD (11,0)
TCUDRV	Number of UDP datagrams delivered to UDP users.	PD (15,0)
TCUDTR	Number of UDP datagrams sent.	PD (15,0)
TCUDNP	Number of received UDP datagrams for which there was no application on the destination port.	PD (11,0)
TCUDER	Number of received UDP datagrams that could not be delivered for other reasons.	PD (11,0)
TCICRV	Number of ICMP messages received.	PD (15,0)
TCICTR	Number of ICMP messages which were attempted to be sent.	PD (15,0)
TCICIE	Number of received ICMP messages that had ICMP-specific errors.	PD (11,0)
TCICOE	Number of ICMP messages that were not sent due to ICMP-specific problems.	PD (11,0)

---

## Performance data files: QAPMTCPIFC

This file contains TCP/IP data related to individual TCP/IP interfaces. There will be one record per TCP/IP interface per collection interval. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

**Note:** The TCP/IP performance data does not include data for Internet Protocol version 6 (IPv6).

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss). The date and time of the sample interval.	C (12)

Field Name	Description	Attribute
INTSEC	Number of seconds TCP/IP interface was active in this sample interval.	PD (7,0)
DTECEN	Century digit.	C (1)
TINUM	TCP/IP interface number.	PD (5,0)
TITYPE	TCP/IP interface type. Possible TCP/IP interface types include: <ul style="list-style-type: none"> <li>• 01 = other</li> <li>• 05 = RFC877 X25</li> <li>• 06 = Ethernet CSMACD</li> <li>• 07 = ISO88023 CSMACD</li> <li>• 09 = ISO88025 Token Ring</li> <li>• 15 = FDDI</li> <li>• 23 = PPP</li> <li>• 24 = Software Loopback</li> <li>• 28 = SLIP</li> <li>• 32 = Frame Relay</li> </ul> This is a partial list. For a full list, see RFC 1213.	PD (5,0)
TILIND	Line description object name.	C (10)
TISTAT	Interface status. Possible values include: <ul style="list-style-type: none"> <li>• 1 - Active</li> <li>• 2 - Inactive</li> <li>• 3 - Test</li> </ul>	PD (3,0)
TIMTU	MTU size for interface.	PD (5,0)
TIBIRV	Number of bytes received on interface.	PD (15,0)
TUPIUC	Number of unicast packets received.	PD (15,0)
TIPINU	Number of non-unicast packets received.	PD (15,0)
TIPIER	Number of inbound packets that contained errors.	PD (11,0)
TUPIUP	Number of inbound packets with protocol errors.	PD (11,0)
TIPIDS	Number of inbound packets discarded for other reasons (for example, lack of buffer space).	PD (11,0)
TIBOTR	Number of bytes transmitted out of interface.	PD (15,0)
TIPOUC	Number of unicast packets requested to be sent.	PD (15,0)
TIPONU	Number of non-unicast packets requested to be sent.	PD (15,0)
TIPOER	Number of outbound packets that could not be sent because of errors.	PD (11,0)
TIPODS	Number of outbound packets discarded for other reasons (for example, lack of buffer space).	PD (11,0)

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## Performance data files: QAPMUSRTNS

This table defines the fields in the user-defined transaction data file record. One record is created for each type of transaction that occurs for a given job during the interval. For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command.	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
DTECEN	Century digit: where 0 indicates 19XX and 1 indicates 20XX.	C (1)
UTNAM	Job name.	C(10)
UTUSR	Job user.	C(10)
UTNUM	Job number.	C(6)
UTTYP	Transaction type. The type of user-defined transaction reported in this record for this job. The transaction type has the same value as the application identifier parameter passed to the Start Transaction API and End Transaction API. If Collection Services encounters more than 15 transaction types for this job, it will combine the transaction data for any additional transaction types into the transaction type of *OTHER.	C(20)
UTTIM	Total time in microseconds used by all transactions of this type for this job.	B(18,0)
UTNUMT	Total number of transactions of this type for this job. This represents the number of calls to the End Transaction API.	B (9,0)
UTSTR	Number of calls to the Start Transaction API for this transaction type and job.	B (9,0)
UTBAD	Number of calls to the End Transaction API for this transaction type and job which passed a bad transaction start time. This can occur for various reasons including: The start time is zero. The start time is after the end time. The start time is before the job start time.	B (9,0)
UTNUMC	Number (N) of user-provided counters associated with this transaction type and job. These counters are reported in the first N UTCTn fields. This field is zero if there are no user-provided counters.	B (9,0)
UTCT1	User-provided counter 1.	B (18,0)
UTCT2	User-provided counter 2.	B (18,0)
UTCT3	User-provided counter 3.	B (18,0)
UTCT4	User-provided counter 4.	B (18,0)
UTCT5	User-provided counter 5.	B (18,0)
UTCT6	User-provided counter 6.	B (18,0)
UTCT7	User-provided counter 7.	B (18,0)
UTCT8	User-provided counter 8.	B (18,0)
UTCT9	User-provided counter 9.	B (18,0)
UTCT10	User-provided counter 10.	B (18,0)
UTCT11	User-provided counter 11.	B (18,0)
UTCT12	User-provided counter 12.	B (18,0)
UTCT13	User-provided counter 13.	B (18,0)
UTCT14	User-provided counter 14.	B (18,0)
UTCT15	User-provided counter 15.	B (18,0)
UTCT16	User-provided counter 16.	B (18,0)

## Performance data files: QAPMX25

This data includes X.25 file entries and lists the fields in the X.25 file. The label designations for the field names are as follows:

- XH prefix in the label refers to HDLC counters
- XL refers to X.25 logical link control (LLC) counters
- XP refers to packet level control (PLC) counters

For information about how Collection Services generates this file and where the data comes from, refer to “Performance data files: Collection Services system category and file relationships” on page 4.

Field Name	Description	Attribute
INTNUM	Interval number: The nth sample database interval based on the start time specified in the Create Performance Data (CRTPFRDTA) command	PD (5,0)
DTETIM	Interval date (yymmdd) and time (hhmmss): The date and time of the sample interval.	C (12)
INTSEC	Elapsed interval seconds: The number of seconds since the last sample interval.	PD (7,0)
IOPRN	IOP resource name.	C(10)
XIOPID	Reserved.	C(1)
XITYPE	The resource type of the IOP or adapter represented by this record.	C (4)
XLLND	Line description: The name of the description for this line.	C (10)
XLLSP	Line speed: The speed of this line in bits per second (bps).	PD (11,0)
XHBTRN	Bytes transmitted: The number of bytes transmitted, including bytes transmitted again.	PD (11,0)
XHBRCV	Bytes received: The number of bytes received, including all bytes in frames that had any kind of error.	PD (11,0)
XHPRCL	Protocol type: X for X.25.	C (1)
XHFTRN	Frames transmitted: The number of frames transmitted (I, supervisory, and frames not numbered), excluding frames transmitted again.	PD (11,0)
XHIFTR	I-frames transmitted: The number of I-frames transmitted, excluding I-frames transmitted again.	PD (11,0)
XHIFRT	I-frames transmitted again: The number of I-frames transmitted again.	PD (11,0)
XHFRT	Frames transmitted again: The number of I, supervisory, and frames not numbered transmitted again.	PD (11,0)
XHEFFR	Error-free frames received: The number of I, supervisory, and frames not numbered received without error (whether or not they were transmitted again from the remote side).	PD (11,0)
XHEFIR	Error-free I-frames received: The number of I-frames received without error (whether or not they were transmitted again from the remote side).	PD (11,0)
XHFRIE	Frames received in error: The number of I, supervisory, and frames not numbered received in error. There are three error possibilities: (1) a supervisory or I-frame was received with an Nr count that is requesting retransmission of a frame, (2) an I-frame was received with an Ns count that indicates that frames were missed, (3) a frame was received with one of the following errors: a frame check sequence error, an abnormal end, a receive overrun or a frame truncated error.	PD (11,0)
XHIFR	Frames received that are not valid: The number of not valid frames received. These are frames received with either: (1) a short frame error-frame is less than 32 bits, or (2) a residue error-frame is not on a byte boundary.	PD (11,0)
XHRRFT	Number of receive ready supervisory frames transmitted.	PD (11,0)

Field Name	Description	Attribute
XHRRFR	Number of receive ready supervisory frames received.	PD (11,0)
XHRNRT	Number of receive-not-ready supervisory frames transmitted.	PD (11,0)
XHRNRR	Number of receive-not-ready supervisory frames received.	PD (11,0)
XHLNKR	Link resets: The number of times when a set normal response mode (SNRM) was received when the station was already in normal response mode.	PD (11,0)
XLITR	Interface protocol data units transmitted (LLC level).	PD (11,0)
XLIRC	Interface protocol data units received.	PD (11,0)
XLIRT	Interface protocol data units transmitted again.	PD (11,0)
XLIRE	Interface protocol data units received in error (checksum).	PD (11,0)
XLXTR	Number of XIDs transmitted.	PD (11,0)
XLXRC	Number of XIDs received.	PD (11,0)
XLTT	Number of tests transmitted.	PD (11,0)
XLTR	Number of tests received.	PD (11,0)
XLLJT	Number of LLC rejects transmitted.	PD (11,0)
XLLJR	Number of LLC rejects received.	PD (11,0)
XLRLD	Number of received LLC protocol data units discarded.	PD (11,0)
XLTO	Number of time-outs.	PD (11,0)
XLCED	Checksum errors detected.	PD (11,0)
XLSRA	Successful recovery attempts.	PD (11,0)
XLRA	Recovery attempts.	PD (11,0)
XLRSI	Number of reset indications from packet-link control.	PD (11,0)
XLCLS	Number of close station indications from packet-link control.	PD (11,0)
XLRNR	LLC receive-not-ready frames received.	PD (11,0)
XPTPT	Total packets transmitted.	PD (11,0)
XPTPR	Total packets received.	PD (11,0)
XPDPPT	Data packets transmitted.	PD (11,0)
XPDPPT	Data packets received.	PD (11,0)
XPRPT	Reset packets transmitted.	PD (11,0)
XPROR	Reset packets received.	PD (11,0)
XPRNR	Receive-not-ready packets received.	PD (11,0)





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