

## Trace events - AddPexDfn's type(\*trace) nnnEvt parameters

This file is based on the V4R2 info on addpexdfn's type(\*trace) event parameters lifted from the Performance Tools V4R2 book SC41-5340-00 **Table 11-2**

```
AddPexDfn type(*trace) sltevt(*yes) nnnEvt( )
      where nnnEvt = baseEvt, pgmEvt, stgEvt etc
```

1. [basevt](#)( \*prccrt, \*prcdlt, \*taskcrt, \*pmco, \*taskswtout, etc )
2. [pgmevt](#)( \*mistr, \*miend, \*mientry, \*jvaentry, etc )  
These are also known as program bracketing events.
3. [stgevt](#)( \*crtseg, \*fndsegsiz, etc )
4. [dskevt](#)( \*readstr, \*pgreadstr, etc )
5. [faultevt](#)( \*str, \*endok, \*enderr )
6. [jobevt](#)( \*active, \*ineligible, etc )
7. [lckevt](#)( \*lwend )
8. [sarevt](#)( \*clr, \*read, \*exchread, \*wrt, etc )
9. [dsksvrevt](#)( \*ctlend, etc )
10. [osevt](#)( \*mievn thru \*mie31 )
11. [jvaevt](#)( \*objcrt, etc )
12. [cmnevt](#)( \*service )
13. [mchinst](#)( list of MI's or \*ALL )  
Need to specify pgmevt(\*mistr \*miend) too.

### Trace Event Descriptions:

The following tables describe each event available when you specify SLTEVT(\*YES) on the ADDPEXDFN command.

The tables also indicate the relationships between the TRCTYPE parameter and the events that are included in the performance explorer definition.

#### [AddPexDfn BASEVT parameter](#)

The data that is collected for the BASE events are placed in the QAYPETIDX and QAYPEBASE files.

Table 11-2. BASE event descriptions <a href="#">AddPexDfn</a> BASEVT parameter		
Event	TRCTYPE	Description
PRCCRT		Process Create. An event is

		generated whenever an AS/400 process is created during an active performance explorer collection session.
PRCDLT		Process Delete. An event is generated whenever an AS/400 process ends during an active performance explorer collection session.
TASKCRT		Task Create. An event is generated whenever an AS/400 SLIC task is created during an active performance explorer collection session.
TASKDLT		Task Delete. An event is generated whenever an AS/400 SLIC task ends during an active performance explorer collection session.
TASKSWTIN	*TASKSWT	Task Switch In. An event is generated whenever an AS/400 task is switched in and given processor time during an active performance explorer collection session.
TASKSWTOUT	*TASKSWT	Task Switch Out. An event is generated whenever an AS/400 task is switched out from the processor, due to time-slice end, during an active performance explorer collection session.
PMCO	ALL TRCTYPES	Performance Measurement Counter Overflow. An event is generated whenever this hardware counter overflows during an active performance explorer collection session. This hardware counter is used in conjunction with the Sample rate parameter and can be programmed to overflow and generate an event at the specified sample rate interval.
TASKSWTOUTQ	*TASKSWT	Task Switch Out Queueing. An event is generated whenever an AS/400 task is switched out from the processor, due to a lock condition, during an active performance explorer collection session.
TASKSWTOUTINT	*TASKSWT	Task Switch Out Interrupt. An event is generated whenever an AS/400 task is switched out from the processor, due to an interrupt, during an active performance explorer collection session.
TASKAVAIL	*TASKSWT	Task Available for Dispatch. An event is generated whenever an AS/400 task is available to be dispatch to the processor during

		an active performance explorer collection session.
ACTGRPACTPGM	*BASIC, *PGMACT	Activation Group Activate Program. An event is generated whenever an ILE program activation begins during an active performance explorer collection session.
ACTGRPCRT	*BASIC, *PGMACT	Activation Group Create. An event is generated whenever an ILE program activation group is created during an active performance explorer collection session.
ACTGRPDLT	*BASIC, *PGMACT	Activation Group Delete. An event is generated whenever an ILE program activation group is destroyed during an active performance explorer collection session.
EXCP		Exception. An event is generated whenever an exception occurs during an active performance explorer collection session.
MIEXCP		Mi Exception. An event is generated whenever an MI exception occurs during an active performance explorer collection session.
EXTINTSTR		External Interrupt Start. An event is generated whenever a start of an external interrupt occurs during an active performance explorer collection session.
EXTINTEND		External Interrupt End. An event is generated whenever an end of an external interrupt occurs during an active performance explorer collection session.
DCRINTSTR		Decrement Interrupt Star. An event is generated whenever a start of a decrement interrupt occurs during an active performance explorer collection session.
DCRINTEND		Decrement Interrupt End. An event is generated whenever an end of a decrement interrupt occurs during an active performance explorer collection session.
PGMDBG	*BASIC	Program Debug. This event is activated through the Dedicated Service Tools (DST) interface
SERVICE		Service. Use this value when your Service Rep requests it. Event's data is in qaypeusrdf.

## AddPexDfn STGEVT parameter

Auxiliary storage management (ASM) is responsible for the management of the segment spaces for the single-level storage model of the AS/400.

For the non-heap (pre-V4R4) events, the data that is collected for the ASM events are placed in the QAYPETIDX and QAYPEASM files.

For the heap events, the data that is collected for the ASM events are placed in the QAYPETIDX and QAYPEHEAP files.

Table 11-3. Auxiliary storage management event descriptions  
[AddPexDfn](#) STGEVT parameter

Event	TRCTYPE	Description
CRTSEG	*BASIC, *DSKSTG, *VRTADR	Create Segment. An event is generated whenever a segment is created during an active performance explorer collection session.
DLTSEG	*BASIC, *DSKSTG	Destroy Segment. An event is generated whenever a segment is destroyed during an active performance explorer collection session.
EXDSEG	*BASIC, *DSKSTG	Extend Segment. An event is generated whenever a segment is extended during an active performance explorer collection session.
FNDSEGSIZ	*BASIC, *DSKSTG	Find Segment Size. An event is generated whenever a request to find the segment size occurs during an active performance explorer collection session.
TRUNCSEG	*BASIC, *DSKSTG	Truncate Segment. An event is generated whenever a segment is truncated during an active performance explorer collection session.
SYSHEAP		System Heap. An event is generated whenever a system heap access is done by a task/job/thread in an active PEX collection session.
RESHEAP		Resident Heap. An event is generated whenever a resident heap access is done by a task/job/thread in an active PEX collection session.
LCLHEAP		Local Heap. An event is generated whenever a local heap

		access is done by a task/job/thread in an active PEX collection session.
USRHEAP		User Heap. An event is generated whenever a user heap access is done by a task/job/thread in an active PEX collection session.
ACTGRPHEAP		Activation Group Heap. An event is generated whenever an activation group heap access is done by a task/job/thread in an active PEX collection session.
HDLHEAP		Handle Based Heap. An event is generated whenever a handle based heap access is done by a task/job/thread in an active PEX collection session.
SERVICE		Service. Use this value when your Service Rep requests it. Event's data is in qaypeusrdf.

### [AddPexDfn DSKEVT parameter](#)

Disk events trace I/O activity with the disk storages devices of the AS/400.

The data that is collected for the Disk events are placed in the QAYPETIDX and QAYPEDASD files.

Event	TRCTYPE	Description
READSTR	*BASIC, *DSKIO1, *DSKIO2, *TASKSWT	Read Start. An event is generated whenever a start of a physical read occurs during an active performance explorer collection session.
READEND	*DSKIO1, *DSKIO2, *TASKSWT	Read End. An event is generated whenever a complete of a physical read occurs during an active performance explorer collection session.
WRTSTR	*BASIC, *DSKIO1, *DSKIO2, *TASKSWT	Write Start. An event is generated whenever a start of a physical write occurs during an active performance explorer collection session.
WRTEND	*DSKIO1, *DSKIO2, *TASKSWT	Write End. An event is generated whenever a complete of a physical write occurs during an active performance explorer collection session.
PGREADSTR		Page Read Start. An event is

		generated whenever a start of a page read occurs during an active performance explorer collection session.
PGREADEND		Page Read End. An event is generated whenever a complete of a page read occurs during an active performance explorer collection session.
PGWRTSTR		Page Write Start. An event is generated whenever a start of page write occurs during an active performance explorer collection session.
PGWRTEND		Page Write End. An event is generated whenever a complete of a page write occurs during an active performance explorer collection session.
SERVICE		Service. Use this value when your Service Rep requests it. Event's data is in qaypeusrdf.

### [AddPexDfn](#) FAULTEVT parameter

A page fault occurs whenever an address is referred to and is not in the main storage of the AS/400 system.

The data that is collected for the page fault events are placed in the QAYPETIDX and QAYPEPGFLT files.

Event	TRCTYPE	Description
STR	*BASIC, *DSKIO2	Start of Fault. An event is generated whenever a start of a page fault occurs during an active performance explorer collection session.
ENDOK		End of Fault: OK. An event is generated whenever a successful completion of a page fault occurs during an active performance explorer collection session.
ENDERR		End of Fault: Error. An event is generated whenever an unsuccessful completion of a page fault occurs during an active performance explorer collection session.
SERVICE		Service. Use this value when your Service Rep requests it. Event's data is in qaypeusrdf.

## AddPexDfn JOBEVT parameter

The management of the MI interrupts are for the jobs or processes running on the AS/400 system

The data that is collected for the RMPM events are placed in the QAYPETIDX and QAYPERMPM files.

Table 11-6. Job or Process Events <a href="#">AddPexDfn</a> JOBEVT parameter		
Event	TRCTYPE	Description
LWSTR		Machine Interface Long Wait Start. An event is generated whenever a start of a long wait occurs during an active performance explorer collection session.
LWEND		Machine Interface Long Wait End. An event is generated whenever a completion of a long wait occurs during an active performance explorer collection session.
INELIGIBLE		Machine Interface Process Ineligible. An event is generated whenever a process moves from active state to ineligible during an active performance explorer collection session.
ACTIVE		Machine Interface Process Active. An event is generated whenever a process moves from ineligible or wait to active during an active performance explorer collection session.
INTERRUPT		Machine Interface Process Interrupt. An event is generated whenever a process interrupt occurs during an active performance explorer collection session.
MPLPOOLCHG		Machine Interface MPL Pool Change. An event is generated whenever the MPL pool changes during an active performance explorer collection session.
TOBCHMPLPOOL		Machine Interface Process To Batch MPL Pool. An event is generated whenever an MI process is being implicitly moved to the batch MPL pool defined for it during an active performance explorer collection session.
TSLEND		Machine Interface Timeslice End. An event is generated whenever a process timeslice end occurs during an active performance

		explorer collection session.
SERVICE		Service. Use this value when your Service Rep requests it. Event's data is in gaypeusrdf.

### [AddPexDfn](#) LCKEVT parameter

The management of the seizes and locks used for resource serialization that occur on the AS/400 system.

The data that is collected for the RMSL events are placed in the QAYPETIDX and QAYPERMSL files.

Event	TRCTYPE	Description
LWEND		Seize Lock Long Seize Wait End. An event is generated whenever a long seize wait completes during an active performance explorer collection session.
SERVICE		Service. Use this value when your Service Rep requests it. Event's data is in gaypeusrdf.

### [AddPexDfn](#) SAREVT parameter

The SAR events (give description here)

The data that is collected for the SAR events are placed in the QAYPETIDX and QAYPESAR files.

Event	TRCTYPE	Description
CLR	*BASIC	Clear. An event is generated whenever a storage clear operation is requested during an active performance explorer collection session.
CLRPIN	*BASIC	Clear Pin. An event is generated whenever a storage clear and pin operation is requested during an active performance explorer collection session.
EXCHCLR	*BASIC	Exchange Clear. An event is generated whenever a storage exchange and clear operation is requested during an active



		performance explorer collection session.
READ	*BASIC, *DSKIO2	Read. An event is generated whenever a storage read operation is requested during an active performance explorer collection session.
READASYNC	*BASIC, *DSKIO2	Read Asynchronous. An event is generated whenever a storage asynchronous read operation is requested during an active performance explorer collection session.
READASYNCCALL	*BASIC, *DSKIO2	Read Asynchronous Track Call. An event is generated whenever the storage management read asynchronous tracked by a call function is accessed during an active performance explorer collection session.
READPIN	*BASIC, *DSKIO2	Read Pin. An event is generated whenever a storage read and pin operation is requested during an active performance explorer collection session.
EXCHREAD	*BASIC, *DSKIO2, *FILEOPEN	Exchange Read. An event is generated whenever a storage exchange read operation is requested during an active performance explorer collection session.
EXCHREADASYNC	*BASIC, *DSKIO2	Exchange Read Asynchronous. An event is generated whenever a storage asynchronous exchange read operation is requested during an active performance explorer collection session.
EXCHREAD-ASYNCCALL	*BASIC, *DSKIO2	Exchange Read Asynchronous Track Call. An event is generated whenever the storage management exchange read asynchronous tracked by a call function is accessed during an active performance explorer collection session.
WRT	*BASIC, *DSKIO2	Write. An event is generated whenever a storage write operation is requested during an active performance explorer collection session.
WRTASYNC	*BASIC, *DSKIO2	Write Asynchronous. An event is generated whenever a storage asynchronous write operation is requested during an active performance explorer collection session.
WRTASYNCCALL	*BASIC, *DSKIO2	Write Asynchronous Track Call. An event is generated whenever the storage management write

		asynchronous tracked by a call function is accessed during an active performance explorer collection session.
WRTASYNCSMSGQ	*BASIC, *DSKIO2	Write Asynchronous Track Message Queue. An event is generated whenever the storage management write asynchronous function is accessed during an active performance explorer collection session.
WRTASYNCSMSGQLAST	*BASIC, *DSKIO2	Write Asynchronous Track Message QueueLast. An event is generated whenever the storage management write last asynchronous tracked by a call is requested during an active performance explorer collection session.
WRTASYNCTASK	*DSKIO2	Write Asynchronous Track Task. An event is generated whenever the storage management write last asynchronous tracked by the current task is requested during an active performance explorer collection session.
WRTASYNCSWAIT		Write Asynchronous Track Wait. An event is generated whenever the storage management write asynchronous tracked by is requested during an active performance explorer collection session.
WRTRMV	*BASIC, *DSKIO2	Write Remove. An event is generated whenever a storage write remove operation is requested during an active performance explorer collection session.
WRTPGOUT	*BASIC, *DSKIO2	Write For Page Out. An event is generated whenever a storage write for page out operation is requested during an active performance explorer collection session.
RMV	*BASIC	Remove. An event is generated whenever a storage remove operation is requested during an active performance explorer collection session.
UNPIN	*BASIC	Unpin. An event is generated whenever a storage unpin operation is requested during an active performance explorer collection session.
UNPINRMV	*BASIC	Unpin Remove. An event is generated whenever a storage unpin remove operation is requested during an active performance explorer collection session.

UNPINWRT	*BASIC, *DSKIO2	Unpin Write. An event is generated whenever a storage unpin write operation is requested during an active performance explorer collection session.
ENDOK		End of SAR event: OK. An event is generated whenever any specified SAR event completes successfully during an active performance explorer collection session.
ENDERR		End of SAR event: Error. An event is generated whenever any specified SAR event completes with an error during an active performance explorer collection session.
STRASYNCTASK		Start Asynchronous Task. An event is generated whenever during an active performance explorer collection session.
SERVICE		Service. Use this value when your Service Rep requests it. Event's data is in qaypeusrdf.

### [AddPexDfn](#) DSKSVREVT parameter

The DASD server events (give descriptions here)

The data that is collected for the DASD server events are placed in the QAYPETIDX and QAYPEDSRV files.

Event	TRCTYPE	Description
CTLEND	*DSKSVR	Control End. An event is generated whenever a server request to create or destroy session completes during an active performance explorer collection session.
RQSACP	*DSKSVR	Request Accepted. An event is generated whenever a server function request is accepted and will be handled by a server task during an active performance explorer collection session.
RQSRJT	*DSKSVR	Request Rejected. An event is generated whenever a server function request is rejected because of an error during an active performance explorer collection session.

SVRTASKSTR	*DSKSVR	Server Task Started. An event is generated whenever a server task is created and is ready to process requests during an active performance explorer collection session.
SVRTASKEND	*DSKSVR	Server Task Ended. An event is generated whenever a server task is ended and will be removed from the system during an active performance explorer collection session.
RQSRCV	*DSKSVR	Request Received. An event is generated whenever a server task receives a request for work (read or write) during an active performance explorer collection session.
RQSENDOK	*DSKSVR	Request Ended OK. An event is generated whenever a server task completes the request with no errors during an active performance explorer collection session.
RQSENDERR	*DSKSVR	Request Ended Error. An event is generated whenever a server task encounters an error while processing a request during an active performance explorer collection session.
SERVICE		Service. Use this value when your Service Rep requests it. Event's data is in qaypeusrdf.

### [AddPexDfn](#) PGMEVT parameter

Program bracket events trace the call flow of programs and procedures as well as MI complex instructions. These events give information on when programs, procedures and MI complex instruction are entered into (or called) and exited from (or returned).

The data that is collected for the program/procedure bracketing events are placed in the QAYPETIDX and QAYPEMBRKT files.

Event	TRCTYPE	Description
MIENTRY	*CALLRTN, *FILEOPEN, *PGMACT	Entry. An event is generated whenever a program or procedure that is enabled for performance collection is entered or called during an active performance explorer collection session.
MIEXIT	*CALLRTN,	Exit. An event is generated

	*FILEOPEN, *PGMACT	whenever a program or procedure that is enabled for performance collection exits or returns during an active performance explorer collection session.
MISTR	*CALLRTN, *PGMACT	Machine Interface Instruction Start. An event is generated whenever an MIcomplex instruction is routed to or from a program during an active performance explorer collection session.
MIEND	*CALLRTN, *PGMACT	Machine Interface Instruction End. An event is generated whenever an MI complex instruction completes and returns to the program during an active performance explorer collection session.
MIPRECALL		Pre Call. An event is generated whenever a program or procedure that is enabled for performance collection calls externally to another program or procedure during an active performance explorer collection session.
MIPOSTCALL		Post Call. An event is generated whenever a program or procedure that is enabled for performance collection has been returned to from an external call to another program or procedure during an active performance explorer collection session.
JVAENTRY		Java Entry. An event is generated whenever a Java method is called during an active performance explorer collection session.
JVAEXIT		Java Exit. An event is generated whenever a Java method is returned from during an active performance explorer collection session.
JVAPRECALL		Java Precall. An event is generated whenever a Java method is about to call out some other function during an active performance explorer collection session.
JVAPOSTCALL		Java Postcall. An event is generated whenever a Java method is returned from some other function during an active performance explorer collection session.
JVANVTMTHSTR		Java Native Method Start. An event is generated whenever a Java method calls an AS/400

		method during an active performance explorer collection session.
JVANTVMTHEND		Java Native Method End. An event is generated whenever a Java method returns from an AS/400 method during an active performance explorer collection session.

### [AddPexDfn OSEVT parameter](#)

OS events describe activity occurring in various 'above the MI' components of the AS/400 system.

The data that is collected for the OS events is placed in the QAYPETIDX and QAYPEMIUSR files.

The V4R4 AddPexDfn command supports the OSEVT parameter.

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Event	TRCTYPE	Description
DBIO		Database IO. An event is generated whenever a database logical data i/o is done by a job/thread in an active PEX collection session.
DBOPEN		Database Open. An event is generated whenever a database full file open or close is done by a job/thread in an active PEX collection session.
DTAARA		Data Area. An event is generated whenever a data area (*dtaara) access is done by a job/thread in an active PEX collection session.
DTAQ		Data Queue. An event is generated whenever a data queue (*dtaq) access is done by a job/thread in an active PEX collection session.

### [AddPexDfn JVAEVT parameter](#)

Java events describe activity occurring in the Java virtual machine of the AS/400 system.

The data that is collected for the Java events are placed in the QAYPETIDX and QAYPEJVA files.

Table 11-11. Java events  
[AddPexDfn](#) JVAEVT parameter

Event	TRCTYPE	Description
OBJCRT		Java object create. An event is generated whenever a Java object instance is created during an active performance explorer collection session.
GBGCOL		Java garbage collection. An event is generated whenever Java is doing garbage collection during an active performance explorer collection session.
GBGCOLSWEEP		Java garbage collection sweep. An event is generated whenever the garbage collection sweep completes during an active performance explorer collection session.
THDCRT		Java thread create. An event is generated whenever a Java thread is created during an active performance explorer collection session.
THDDL		Java thread delete. An event is generated whenever a Java thread is destructed during an active performance explorer collection session.
THDSSP		Java thread suspend. An event is generated whenever a Java thread or thread group suspend is started during an active performance explorer collection session.
THDRSM		Java thread resume - An event is generated whenever a java thread or thread group is resumed during an active performance explorer collection session.
THDWAIT		Java thread wai. An event is generated whenever an Object::wait() used for thread synchronization is started during an active performance explorer collection session.
THDNFY		Java thread notify. An event is generated whenever an Object::notify() used for thread synchronization is started during an active performance explorer collection session.
THDNFYALL		Java thread notify all. An event is generated whenever an Object::notifyAll() used for thread synchronization is started during an active performance explorer collection session.

THDSTTCHG		Java thread state change. An event is generated whenever a method that causes a thread state transition (for example, a thread block) is started during an active performance explorer collection session.
CLSLOAD		Java class load. An event is generated whenever a Java class is loaded during an active performance explorer collection session.
CLSUNLOAD		Java class unload. An event is generated whenever a Java class is unloaded during an active performance explorer collection session.
LIBOPR		Java class library operation. An event is generated whenever a Java native method library is loaded or unloaded during an active performance explorer collection session.
TFMSTR		Java transform start. An event is generated whenever a Java program object generation step is started during an active performance explorer collection session.
LCKSTR		Java lock. An event is generated whenever a synchronize lock is requested during an active performance explorer collection session.
UNLCK		Java unlock. An event is generated whenever a synchronize lock is released during an active performance explorer collection session.
JVAEND		Java end. An event is generated whenever a previous Java event is completed during an active performance explorer collection session.
SERVICE		Service. Use this value when your Service Rep requests it. Event's data is in qaypeusrdf.

### [AddPexDfn](#) CMNEVT parameter

Communication events describe activity occurring in the TCP/IP related communications component(s) of the AS/400 system.

The data that is collected for the communication events is placed in the QAYPETIDX and QAYPEMIUSR files.



Communication events <a href="#">AddPexDfn</a> CMNEVT parameter		
Event	TRCTYPE	Description
SERVICE		Service. Use this value when your Service Rep requests it. Event's data is in qaypeusrdf.

### [AddPexDfn](#) MCHINST parameter

Table 11-12. Selected MI complex instructions <a href="#">AddPexDfn</a> MCHINST parameter		
MI INST	TRCTYPE	Description
*REQIO	*BASIC	Request IO complex MI
*SNSEXCPD	*BASIC	Sense exception description
*DEQ	*BASIC	Dequeue
*ENQ	*BASIC	Enqueue
*WAITEVT	*BASIC	Wait on event
*RETEVTD	*BASIC	Retrieve event data
*SUSPR	*BASIC	Suspend process
*TERMPR	*BASIC	Terminate process
*INITPR	*BASIC	Initiate process
*RESPR	*BASIC	Resume process
*SIGEVT	*BASIC	Signal event
*UNLOCKSL	*BASIC	Unlock space location
*LOCK	*BASIC	Lock object
*LOCKSL	*BASIC	Lock space location
*UNLOCK	*BASIC	Unlock object
*DEQWAIT	*BASIC	Dequeue wait
*DEACTPG	*BASIC, *PGMACT	De-activate program
*DESAGP	*BASIC, *PGMACT	Destroy activation group