IBM Application Performance Analyzer Automation Assistant for z/OS

User Guide

Version 1 Release 2

Second Edition (October 2006) SC18-9703-01

Publication

Second Edition (October 2006)

Number: SC18-9703-01

This edition applies to IBM Application Performance Analyzer Automation Assistant for z/OS Version 1 Release 2 (5799-HGC) and to any subsequent releases until otherwise indicated in new editions. Make sure you are using the correct edition for the level of Application Performance Analyzer.

You can order publications online at www.ibm.com/shop/publications/order, or order by phone or fax. IBM Software Manufacturing Solutions takes publication orders between 8:30 a.m. and 7:00 p.m. Eastern Standard Time (EST). The phone number is (800) 879-2755. The fax number is (800) 445-9269. You can find out more about IBM Application Performance Analyzer for z/OS by visiting the IBM Web site for Application Performance Analyzer at: http://www.ibm.com/software/awdtools/apa/

Related documentation

- IBM Application Performance Analyzer Automation Assistant for z/OS Message Guide (SC18-9702-01)
- IBM Application Performance Analyzer Automation Assistant for z/OS Installation Guide (SC18-9704-01)

Trademarks

The following terms are trademarks and/or registered trademarks of the IBM Corporation in the United States or other countries or both:

BookManager	MQSeries
CICS	MVS
DB2	OS/390
IBM	REXX
z/OS	

Other company, product, and service names, which may be denoted by a double asterisk (**), may be trademarks or service marks of others.

Notices

References in this publication to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Subject to IBM's valid intellectual property or other legally protectable rights, any functionally equivalent product, program, or service may be used instead of the IBM product, program, or service. The evaluation and verification of operation in conjunction with other products, except those expressly designated by IBM, are the responsibility of the user.

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
500 Columbus Avenue
Thornwood, NY 10594
U.S.A.

Licensees of this program who want to have information about it for the purpose of enabling (1) the exchange of information between independently created programs and other programs (including this one) and (2) the mutual use of the information that has been exchanged, should contact:

IBM Corporation, Department HHX/H3
555 Bailey Avenue
San Jose, CA 95141-1099
U.S.A.

Such information might be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

Contents

About this manual

This manual is for system programmers and product administrators responsible for the installation, configuration and operation of IBM Application Performance Analyzer Automation Assistant for z/OS, hereafter referred to as **APA Automation Assistant**.

We assume that you:

- are familiar with z/OS and its associated terminology,
- have the current version of APA Automation Assistant installed on your system,
- can invoke APA Automation Assistant and display its Primary Options menu.

Main topics covered

Release levels

IBM product release levels are of the form *V.R.MM*. Minor software updates are reflected by a change in the last two digits, and do not necessarily cause the documentation to be reissued.

IBM product names

The following IBM® products are referenced in this manual:

- IBM CICS®
- IBM DB2®
- IBM IMS
- IBM Language Environment®
- IBM WebSphereMQ®
- IBM OS/390®
- IBM z/OS®

Conventions

The following typographic conventions are used:

boldface	Indicates a command or keyword that you should type, exactly as shown.
italics	Indicates a variable for which you should substitute an appropriate value.
monotype	Indicates literal input and output.

Some basic concepts and terminology

Sampling

APA Automation Assistant triggers IBM Application Performance Analyzer for monitoring. Please see more detailed information in IBM Application Performance Analyzer User Guide.

The IBM Application Performance Analyzer Automation Assistant for z/OS Product Code

The module name prefix (product code) used by APA Automation Assistant is AOZ.

The ISPF Component

The APA Automation Assistant ISPF component provides the user with full, interactive access to the product's functionality. A single, gateway dialogue serves as the entry point to all interactive services. The interactive services fall into two basic categories: Customization and Watchlist data mining.

Batch processing

The batch processing of APA Automation Assistant performs data extraction and data maintenance. Log and account data will be analysed, extracted and cumulated. Finally the data will be loaded into the APA Automation Assistant DB2 Performance Data Warehouse.

New features in this release

Application Performance Analyzer Automation Assistant 1.2.00

This release includes the following new features:

Integration of IBM Application Performance Analyzer reports

IBM APA measurement results will be analysed and stored into the APA Automation Assistant DB2 Performance Data Warehouse, hereafter referred to as **DB2 PDWH**. These measurement results can be viewed independent of the IBM Application Performance Analyzer started task. Additional control information for performance history needs will be created and stored.

New filter criteria and ratios in the z/OS watchlist

- CPU service units
- IO service units
- Memory service units
- CPU service units/second
- IO service units/second

Email support

APA Automation Assistant can activate IBM APA requests based on the watchlist results. If requested, the product will send an email with a list of activated requests to the specified email address. This email address can be specified on watchlist level.

Automatic reorganisation of APA Automation Assistant DB2 Performance Data Warehouse

APA Automation Assistant will reorganize the DB2 PDWH and discard watchlist data based on the 'Keep History'. The 'Keep History' option can be set on watchlist level.

Multiple selection on the ISPF watchlist panels

APA Automation Assistant supports that multiple watchlist elements can be selected. The selected elements will be shown in sequence.

New z/OS watchlist fields:

- Storage used above and below the 16 MB line
- Job class and performance group
- List of the ten DD statements with the most I/O activity

New CICS watchlist fields:

- Average file request per transaction
- Average CPU consumption per transaction
- Average response time per transaction

Mark fields that caused the watchlist selection

Fields that caused the selection will be marked 'yellow' on the ISPF watchlist panels.

Migrating from APA Automation Assistant 1.1 to 1.2

The layout of the options file will change in 1.2.00. It is necessary to run the conversion utility AOZCONV0 to change a 1.1 options file to 1.2. The conversion utility will upgrade the options file in place. See the Application Performance Analyzer Automation Assistant User's Guide for a detailed description.

Caution: A migrated options file should not be accessed by Application Performance Analyzer Automation Assistant 1.1. Application Performance Analyzer Automation Assistant 1.1 would downgrade the work of the conversion utility. The result is unpredictable.

CHAPTER 1

Introducing APA Automation Assistant

Application Performance Analyzer Automation Assistant is an automated performance management solution for use with IBM Application Performance Analyzer 1.1 or higher.

It interfaces seamlessly with IBM Application Performance Analyzer to automate the process of measuring applications, prioritizing your tuning efforts and filtering large volumes of data for quick identification of tuning opportunities.

The APA Automation Assistant batch programs analyse your existing SMF and IMS performance records and store the filtered candidates into the APA Automation Assistant DB2 Performance Data Warehouse. If required, the batch processing automatically schedules IBM Application Performance Analyzer observation requests.

Methods and Procedures

General Features

Application Performance Analyzer Automation Assistant utilities make it easier for you to determine, and perform in-depth analysis of performance problems.

Sysplex and Subsystem levels

Application Performance Analyzer Automation Assistant provides you with an application performance view on two different levels:

Sysplex level - users can evaluate system performance in a global way. This provides an overview of application performance for operating systems (Lpars) and subsystems assigned to a sysplex.

Subsystem or Lpar level - users can view the performance problems in greater detail. They can see similarities between subsystems, for example: a CICS transaction that performs a DB2 inquiry is noticeable due to a high DB2 wait time. The related DB2 connection shows a high number of synchronous write, and therefore points to the DB2 I/O-Buffers as the cause of poor performance.

Environment and threshold definitions (Watchlist)

The environment definitions describe the Sysplex and Subsystem where Application Performance Analyzer Automation Assistant processing takes place. The Application Performance Analyzer Automation Assistant interface to IBM Application Performance Analyzer is also defined here.

The threshold definitions, also known as Watchlist, determine the candidates for a deeper analysis of observed objects such as z/OS jobs, CICS programs, DB2 connections, IMS transactions and MQSeries programs. They follow the concept of Sysplex and Subsystem (Lpar) level.

If environment or threshold definitions are created on both levels, Subsystem (Lpar) definitions will override the Sysplex definitions for the specific Subsystem (Lpar).

Two types of threshold fields are available.

1. Absolute field values - these reflect standard performance fields like CPU time, number of I/O's, number of service units.

2. Relative performance fields - calculated averages, for example, number of I/Os per second, CPU consumption per second, 'get pages' per second.

Include/Exclude Lists

In addition to the threshold definitions, you can use Include/Exclude lists to define jobs, transactions or programs for inclusion or exclusion from a watchlist.

Filtering candidates in batch

Based on the threshold definitions, Application Performance Analyzer Automation Assistant can filter candidates for deeper observation. This is done by batch programs running within the Application Performance Analyzer Automation Assistant batch process.
The Application Performance Analyzer Automation Assistant batch programs

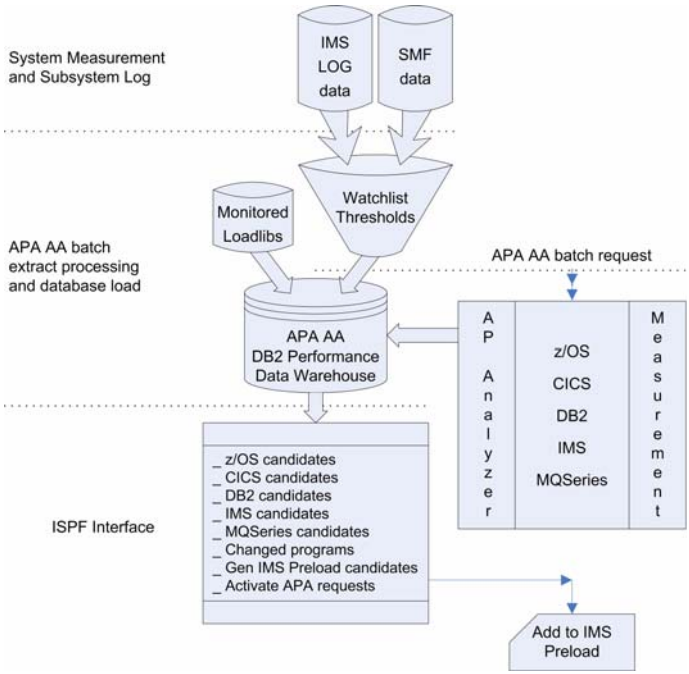
analyse performance data generated by the operating system and subsystems, and store the filtered candidates into the Application Performance Analyzer Automation Assistant DB2 Performance Data Warehouse. If required, the batch processing automatically schedules IBM Application Performance Analyzer measurement requests.

ISPF interface

The Application Performance Analyzer Automation Assistant ISPF interface retrieves data from the Application Performance Analyzer Automation Assistant DB2 Performance Data Warehouse and shows the candidates on Watchlists. These can be used to review results and manually trigger a IBM Application Performance Analyzer measurement request.

Functional Overview

The figure below illustrates how APA Automation Assistant works and where the user can interact with it. On the chart, the wide arrows represent the data flow and the small arrows the external work flow. The dotted lines separate the various APA Automation Assistant functions.



System measurement and subsystem log

Performance data is generated by the operating system. The observed subsystems (z/OS, DB2, CICS and MQSeries) store their performance and accounting data to the SMF datasets. The IMS Subsystems store their log data into IMS log datasets.

All data is passed to the APA Automation Assistant batch process for data extraction.

Batch extract processing and database load

The performance data as collected by the operating system and subsystems is filtered, based on user-defined thresholds and include/exclude lists. Batch jobs, programs, CICS transactions, DB2 connections, IMS transactions and MQSeries connections with performance field values exceeding any threshold value are extracted. Monitored loadlibs are scanned for program changes. A changed program is identified by a new linkage editor timestamp.

The extracted data is loaded into the APA Automation Assistant DB2 Performance Data Warehouse.

Batch request

For each candidate the APA Automation Assistant can automatically schedule an IBM Application Performance Analyzer observation request.

The IBM Application Performance Analyzer measurement gathers additional performance oriented data from a candidate. This provides a deeper insight into the candidates's performance.

The automated IBM Application Performance Analyzer request is build with parameters that can be defined during the APA Automation Assistant configuration.

ISPF interface

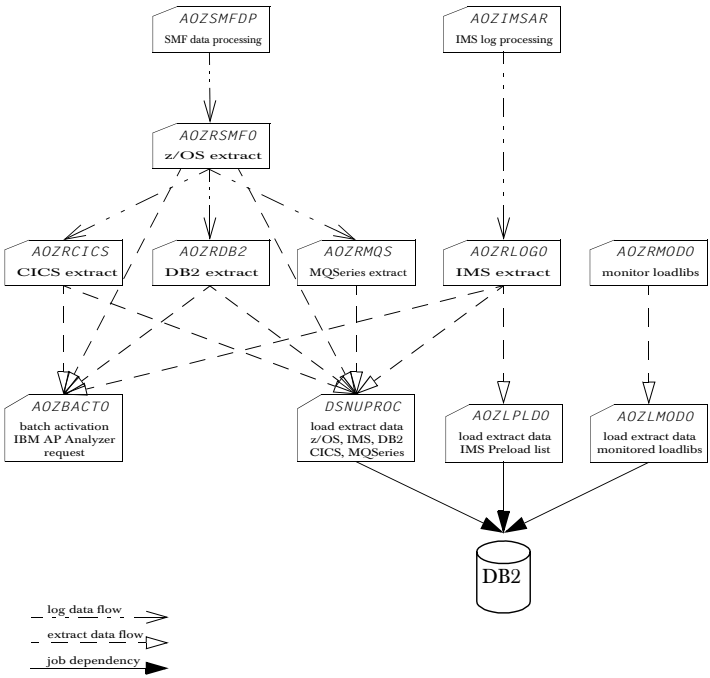
With the APA Automation Assistant ISPF interface, you can filter candidates to prepare a Watchlist overview. Several filter options are provided and most of them work with masking patterns.

Based on the Watchlist contents, correlations between observed subsystems can be determined. For example, if a program module appears on the changed modules list and an IMS transaction calling that program appears on the IMS Watchlist, this leads to the assumption that the increased resource consumption is related to the program change.

APA Automation Assistant batch processing

APA Automation Assistant Batch extract processing, database load and the batch request functions are covered in this section. The complete job flow is shown below.

Batch jobs



On execution, please make sure, that the jobs above are running on following z/OS systems:

AOZSMFDP, AOZIMSAR - all observed z/OS systems and IMS systems, where the observed subsystems are running.

AOZRSMF0, AOZRCICS, AOZRDB2, AOZRMQS, AOZRLOG0 - all z/OS and IMS systems, where the log data are accessible.

AOZRMOD0 - all observed z/OS systems.

AOZBATC0 - z/OS system, where IBM Application Performance Analyzer is executing.

DSNUPROC, AOZLPLD0, AOZLMOD0 -
z/OS system, where the APA Automation Assistant DB2 Performance Data Warehouse is accessible.

The table below contains a short description of each batch job.

Job name	Function	Further information
AOZSMFDP	SMF dump job	page 148
AOZRSMF0	Generate z/OS extract data	page 149
AOZRCICS	Generate CICS extract data	page 151
AOZRDB2	Generate DB2 extract data	page 153
AOZIMSAR	IMS archive job	page 155
AOZRLOG0	Generate IMS extract data	page 155
AOZRMQS	Generate MQSeries extract data	page 158
AOZRMOD0	Retrieve Modules data	page 161
DSNUPROC	Load z/OS extract data	page 150
DSNUPROC	Load CICS extract data	page 152
DSNUPROC	Load DB2 extract data	page 154
DSNUPROC	Load IMS extract data	page 156
DSNUPROC	Load MQSeries extract data	page 158
AOZLMOD0	Load Changed Modules data	page 164
AOZLPLD0	Load IMS Preload List Data	page 165
AOZBACT0	Job AOZBACT0	page 166

APA Automation Assistant ISPF Interface

Menus

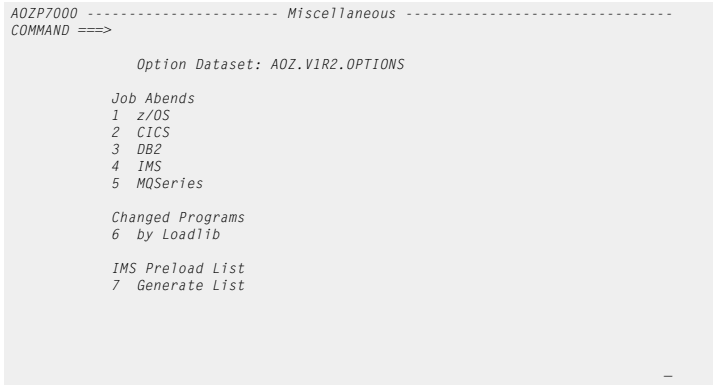
Application Performance Analyzer Automation Assistant is based on ISPF panels; its familiar layouts, commands and function keys make many operations natural and intuitive. A simple menu structure leads you through the major options.

Primary Options menu

```
AOZPMAIN ---- Application Performance Analyzer Automation Assistant 1.2.00 ----
                              Primary Option Menu
COMMAND ===>

            Option Dataset: 'AOZ.V1R2.OPTIONS'

          _ Interface to AP Analyzer
            1  AP Analyzer
            2  Archived AP Analyzer Reports

            Watchlist & Threshold Results, History
            3  z/OS
            4  CICS
            5  DB2
            6  IMS
            7  MQSeries

            Miscellaneous
            8  Job Abends, Changed Modules, IMS Preload List

            Customize Environments
            9  Administration

            X  Exit                                                        _
```

Use this option	To
1 AP Analyzer	Interface to IBM Application Performance Analyzer.
2 Reports	Display Archived AP Analyzer Reports
3 z/OS	Display Watchlist z/OS (see 'z/OS Watchlist' on page 28).
4 CICS	Display Watchlist CICS (see 'CICS Watchlist' on page 33).
5 DB2	Display Watchlist DB2 (see 'DB2 Watchlist' on page 39).
6 IMS	Display Watchlist IMS (see 'IMS Watchlist' on page 45).
7 MQSeries	Display Watchlist MQSeries (see 'MQSeries Watchlist' on page 51).
8 Job Abends, Changed Modules, IMS Preload List	Display job abends, changed programs or IMS preload lists (see 'Miscellaneous' on page 61).
9 Administration	Display the Administration menu (see 'Configuring environment(s)' on page 83).
Exit	Exit Application Performance Analyzer Automation Assistant.

Miscellaneous menu (primary option 8)



Use this option	To
1 z/OS	Get a list of abended jobs (see 'z/OS Abend List' on page 64).
2 CICS	Get a list of abended CICS transactions (see 'CICS Abend List' on page 66).
3 DB2	Get a list of abended DB2 connections (see 'DB2 Abend List' on page 68).
4 IMS	Get a list of abended IMS transactions (see 'IMS Abend List' on page 70).
5 MQSeries	Get a list of abended MQSeries connections (see 'MQSeries Abend List' on page 72).
6 by Loadlib	Get a list of changed modules (see 'Changed Programs by Loadlib' on page 74).
7 Generate List	Get a list of candidates to be managed by IMS Preload (see 'IMS Preload Candidates' on page 77).

Administration menu (primary option 9)

```
AOZP6000 -------------------- Administration Menu ----------------------------
COMMAND ===>

               Option Dataset: AOZ.V1R2.OPTIONS
               Sysplex Name  : $GLOBAL               blank= Selection List
               Lpar Name     :                        *= generic

         _  Environment Definitions
            1  Sysplex
            2  Lpar

            Watchlist Definitions
            3  z/OS
            4  CICS
            5  DB2
            6  IMS
            7  MQSeries
            8  Loadlibs (Changed Programs)

            AP Analyzer Request Parameter
            9  Sysplex
            A  Lpar
```

Use this option	To
1 Sysplex	Set up a Sysplex environment (see 'Setting up the Sysplex environment' on page 84).
2 Lpar	Set up an Lpar environment (see 'Setting up the Lpar environment (optional)' on page 87).
3 z/OS	Set up a z/OS Watchlist definition (see 'Setting up the z/OS Watchlist' on page 90).
4 CICS	Set up a CICS Watchlist (see 'Setting up the CICS Sysplex Watchlist' on page 100).
5 DB2	Set up a DB2 Watchlist (see 'Setting up the DB2 Sysplex Watchlist' on page 106).
6 IMS	Set up an IMS Watchlist (see 'Setting up the IMS Sysplex Watchlist' on page 118).
7 MQSeries	Set up a MQSeries Watchlist (see 'Setting up the Watchlist MQSeries System(s)' on page 129).
8 Loadlibs (Changed Programs)	'Setting up the Watchlist Loadlibs' on page 132
9 Sysplex	Set up the IBM Application Performance Analyzer Sysplex request parameter to interact with Application Performance Analyzer Automation Assistant (see 'Setting up the IBM Application Performance Analyzer Sysplex Request Parameter' on page 134).
A Lpar	Set up the IBM Application Performance Analyzer Lpar request parameter to interact with Application Performance Analyzer Automation Assistant (see 'Setting up the IBM Application Performance Analyzer Lpar Request Parameter' on page 137 in the Installation and Configuration Guide).

CHAPTER 2

Interface to IBM Application Performance Analyzer

The topics covered in this chapter are:

IBM Application Performance Analyzer

Application Performance Analyzer Automation Assistant supports to connect to IBM Application Performance Analyzer without leaving Application Performance Analyzer Automation Assistant.

To connect to IBM Application Performance Analyzer, perform these steps:

1 Select Option 1 (IBM Application Performance Analyzer) on the Primary Option menu.

The IBM Application Performance Analyzer Systems screen displays.

2 Select a system using line command 'S'.

```
----- IBM Application Performance Analyzer Systems ------------ Row 1 to 1 of 1
COMMAND ===>                                                  SCROLL ===> CSR_

Sysplex Name  : $GLOBAL
Lpar Name     :

Line Commands :  S(elect)

  Sysplex  Lpar Name  SSID   Product Datasets
--------------------------------------------------------------------------------
_ $GLOBAL            CAZO   SYS2.APA.V110O
****************************** Bottom of data ********************************
```

Filter Options

The following fields can be used as filter options:

Sysplex Name

Optional field. Fully qualified name of the Sysplex or mask (e.g. PLEX1*).

Lpar Name

Optional field. Fully qualified Lpar name or mask (e.g. SY*).

3 Press Enter. Application Performance Analyzer Automation Assistant will connect to IBM Application Performance Analyzer.

Archived IBM Application Performance Analyzer Reports

APA Automation Assistant stores all IBM Application Performance Analyzer results into the APA Automation Assistant DB2 Performance Data Warehouse. This function allow to view the observation results independent of IBM Application Performance Analyzer. The sequential files that are created by IBM Application Performance Analyzer are not necessary to view these reports.

To view IBM Application Performance Analyzer reports, perform these steps:

1 Select Option 2 (Archived IBM Application Performance Analyzer Reports) on the Primary Option menu.

The IBM Application Performance Analyzer Reports screen displays.

```
---------------- IBM Application Performance Analyzer Reports ----------------
COMMAND ===>                                                 SCROLL ===> CSR_

Sysplex Name : ADCDPL               Start Date  :    /    /    YY/MM/DD
Lpar Name    :                      Start Time  :    :         HH:MM
Job Name     :
Program Name :                      User-ID     :
Line Commands: (S)elect
  Date       Time   Lpar  Job-Name  Program   Request-ID  User-ID
--------------------------------------------------------------------------------
  2005-01-08 18:57  SYS1  P3905     PCXTHSET   00000002   P390
  2006-01-26 17:27  SYS1  P390LMOD  AOZLMOD0   00000037   P390
  2006-03-02 17:02  SYS1  P390TEST  CAZPRINT   00000092   P390
  2006-05-08 12:55  SYS1  P3901     AOZRMOD0   00000097   P390
******************************** Bottom of data ********************************
```

Filter Options

The following fields can be used as filter options:

Sysplex Name

Required field. Fully qualified name of the Sysplex where the jobs were monitored.

Lpar Name

Optional field. Fully qualified Lpar name or mask (e.g. SY*).

Start Date and Start Time

Optional field. Date/Time of the oldest list entry.

The date format is YY/MM/DD.

The time format is HH:MM

Job Name

Optional field. Fully qualified job name or mask (e.g. JOBX*).

Program Name

Optional field. Fully qualified program name or mask (e.g. PGM01*).

User-ID

Optional field. Fully qualified userid or mask (e.g. USR0*). Userid of the person who activated this observation request.

Note A filter option will be ignored, if you leave it blank.

For a detailed job overview, perform these steps:

1. In the IBM Application Performance Analyzer Reports screen, enter line command S next to the required report.

2. Press Enter. The 'Report Index' screen appears.

```
--------------- AP Analyzer Report Index --------------- Row 1 to 22 of 41
COMMAND ===>                                                SCROLL ===> CSR_
Sysplex Name : ADCDPL               Start Date     : 2006-01-26
Lpar Name    : SYS1                        Time     : 17:27:58
Job Name     : P390LMOD
Job Number   : JOB03329              Program Name   : AOZLMODO
Step Name    : STEP1                 Req'ing Userid : P390
-------------------------------------------------------------------------------
  S01  Measurement Profile
  S02  Load Module Attributes
  S03  Load Module Summary
  S04  TCB Summary
  S05  Memory Usage Timeline
  S06  Data Space Usage Timeline
  S07  TCB Execution Summary
  S08  Processor Utilization Summary
  C01  CPU Usage by Category
  C02  CPU Usage by Module
  C03  CPU Usage by Code Slice
  C04  CPU Usage Timeline
  C05  CPU Usage by Task/Category
```

Select the desired report from the list using line command ‚S'.

CHAPTER 3

APA Automation Assistant Watchlists

The topics covered in this chapter are:

Batch processing results are displayed using the ISPF component.

The Watchlists contain candidates for IBM Application Performance Analyzer observation requests that are identified by Watchlist thresholds and Include/Exclude criteria.

These are described in more detail in Chapter 4 (Configuring Application Performance Analyzer Automation Assistant) and Chapter 5 (Include and Exclude Lists).

Watchlist primary commands:

SORT column-name A/D

The command SORT will sort the table according to this column. The sort sequence can be specified.

A = ascending

B = descending

Application Performance Analyzer Automation Assistant supports on every watchlist panel **'point and shot'**. So by placing the cursor on a column name Application Performance Analyzer Automation Assistant will sort the table according to this column. This is a more convenient way to use the sort command.

z/OS Watchlist

To display the z/OS Watchlist, perform these steps:

1. Select **Option 3** (**z/OS**) on the Primary Option menu.
2. The z/OS Watchlist screen displays.

```
AOZP2000 ---------------------- z/OS Watchlist ----------- Row 1 to 14 of 227
COMMAND ===>                                                SCROLL ===> PAGE

Sysplex Name : $GLOBAL              Start Date  :    /    /    YY/MM/DD
Lpar Name    :                      Start Time  :    :         HH:MM
Job Name     :                      Program Name:
Job Type     : ALL   All,Job,Stc,Tso
Line Commands: (S)elect (A)ctivate
  Date       Time  Lpar Job-Name T Pgm-Name  Elapsed CPU-Time   EXCP's ServUnit
-------------------------------------------------------------------------------
  2005-11-08 11:29 SYS9 VLF      S COFMINIT 50:21:21 00:00:09      197   162050
  2005-11-08 11:29 SYS9 JES2     J HASJES20 50:31:40 00:17:29   159660 32030591
  2005-11-08 11:29 SYS9 RACF     S IRRSSM00 50:21:33 00:00:17      531   176846
  2005-11-08 11:29 SYS9 LLA      S CSVLLCRE 50:21:57 00:00:41    21679  2314598
  2005-11-08 11:29 SYS9 BLSJPRMI S BLSQPRMI 00:00:44 00:00:05      505   120127
  2005-11-08 11:30 SYS9 CAS9     S CAIRIM   00:01:00 00:00:13    17614   301585
  2005-11-08 11:30 SYS9 VTAM     S ISTINM01 50:21:35 00:02:38     4057  2551962
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:16 00:00:00        0        0
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:24 00:00:02        0        0
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:17 00:00:00        0        0
  2005-11-08 11:30 SYS9 NFSC     S BPXVCLNY 50:19:13 00:00:06      297   104955
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:20 00:00:00        0        0
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:18 00:00:00        0        0
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:18 00:00:00        0        0
```

Filter Options

The following fields can be used as filter options:

Sysplex Name

Required field. Fully qualified name of the Sysplex where the jobs were executed.

Lpar Name

Optional field. Fully qualified Lpar name or mask (e.g. SY*).

Start Date and Start Time

Optional field. Date/Time of the oldest list entry.

The date format is YY/MM/DD.
The time format is HH:MM

Job Name

Optional field. Fully qualified job name or mask (e.g. JOBX*).

Program Name

Optional field. Fully qualified program name or mask (e.g. PGM01*).

Job Type

Required field. The type of jobs to be listed.

You can specify:

- *ALL* for all job types
- *JOB* or *J* for batch jobs
- *STC* or *S* for started tasks
- *TSO* or *T* for TSO sessions.

Note A filter option will be ignored, if you leave it blank.

Watchlist Details

For a detailed job overview, perform these steps:

1 On the z/OS Watchlist screen, enter line command **S** next to the required job.

```
AOZP2000 ---------------------- z/OS Watchlist ----------- Row 1 to 14 of 227
COMMAND ===>                                               SCROLL ===> PAGE

Sysplex Name : $GLOBAL              Start Date  :    /    /    YY/MM/DD
Lpar Name    :                      Start Time  :    :         HH:MM
Job Name     :                      Program Name:
Job Type     : ALL   All,Job,Stc,Tso
Line Commands: (S)elect (A)ctivate
  Date       Time  Lpar Job-Name T Pgm-Name  Elapsed CPU-Time   EXCP's ServUnit
-------------------------------------------------------------------------------
  2005-11-08 11:29 SYS9 VLF      S COFMINIT 50:21:21 00:00:09      197   162050
s 2005-11-08 11:29 SYS9 JES2     J HASJES20 50:31:40 00:17:29   159660 32030591
  2005-11-08 11:29 SYS9 RACF     S IRRSSM00 50:21:33 00:00:17      531   176846
  2005-11-08 11:29 SYS9 LLA      S CSVLLCRE 50:21:57 00:00:41    21679  2314598
  2005-11-08 11:29 SYS9 BLSJPRMI S BLSQPRMI 00:00:44 00:00:05      505   120127
  2005-11-08 11:30 SYS9 CAS9     S CAIRIM   00:01:00 00:00:13    17614   301585
  2005-11-08 11:30 SYS9 VTAM     S ISTINM01 50:21:35 00:02:38     4057  2551962
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:16 00:00:00        0        0
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:24 00:00:02        0        0
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:17 00:00:00        0        0
  2005-11-08 11:30 SYS9 NFSC     S BPXVCLNY 50:19:13 00:00:06      297   104955
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:20 00:00:00        0        0
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:18 00:00:00        0        0
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:18 00:00:00        0        0
```

2 Press Enter. The 'z/OS Watchlist Details' screen appears.

```
AOZP2100 ------------------- z/OS Watchlist Details --------------------------
COMMAND ===>                                                  SCROLL ===> PAGE

Sysplex Name : $GLOBAL    Program Name   : HASJES20   Start Date  : 2005-11-08
Lpar Name    : SYS9       Step Name      : IEFPROC          Time  : 11:29:58
Job Name     : JES2       Proc Step Name : STARTING   Stop  Date  : 2005-11-10
Job Type     : STC        Step Number    : 1                Time  : 14:01:38
Job Number   : 2          Cond/Abend Code: 0000       Elapsed Time: 50:31:40
Job Class    :            Perf. Group    : 1
-------------------Resource Consumption-------------------------------------
CPU Time          :   00:17:29       CPU Time per Sec  :      0.005
EXCP's            :     159660       EXCP'S per Sec    :          0
Total Serv. Units :   32030591       Tot. Serv.Units/s :        176
TCB Service Units :    8209683       CPU Serv. Units/s :         45
IO Service Units  :     798338       IO Serv. Units/s  :          4
Memory Serv. Units:   22627490       Storage < 16 MB   :       1652
SRB Service Units :     395080       Storage > 16 MB   :     101736
-------------------IO Activity per DD-Name----------------------------------
DD-Name     EXCP's    Blocksize      DD-Name      EXCP's    Blocksize
SYS00001      114523        0        SYS00002        28602        0
PROC00           106    27920        SYS00136            5     4000
SYS00137           5     4000        HASPPARM            4    27920
SYS00003           3     4000        SYS00004            3     4000
SYS00005           3     4000        SYS00006            3     4000
```

Job Data

The following Job Data fields display:

Sysplex Name

Name of the Sysplex where the job was executed.

Lpar Name

Lpar name of the z/OS system where the job was executed.

Start Date and Time

Date and time, when the step starts (YYYY-MM-DD, HH:MM:SS)

Stop Date and Time

Date and time, when the step ends (YYYY-MM-DD, HH:MM:SS)

Job Name

Name of the job.

Job Type

Type of the job (JOB, STC or TSO).

Job Number

The JES job number.

Program Name

Name of executed program.

Step Name

Name of the job step.

Elapsed Time

Difference between the end and the start time. Format: HH:MM:SS

Cond/Abend code

Step condition code or user/system abend code.

Step Number

Number of the step.

Job Class

The job executed in this job class

Performance Group

The job used this performance group.

Resource Consumption

The following Resource Consumption fields display:

CPU Time

CPU time consumed by the step.

EXCP's

Number of EXCP's executed by the step.

Total Service Units

Count of all service units consumed by the step.

TCB Service Units

Count of all TCB service units consumed by the step.

IO Service Units

Count of all IO service units consumed by the step.

Memory Service Units

Count of all memory service units consumed by the step.

SRB Service Units

Count of all SRB service units consumed by the step.

CPU Time per Sec

Average CPU time per second consumed by the step.

EXCP's per Sec

Average number of EXCP's per seconds consumed by the step.

Total Serv.Units per Sec

Average count of all service units per seconds consumed by the step.

CPU Serv.Units per Sec

Average count of all TCB service units per seconds consumed by the step.

IO Serv.Units per Sec

Average count of all IO service units per seconds consumed by the step.

Storage < 16MB

Amount of storage used below the 16 MB line in kilobytes.

Storage > 16MB

Amount of storage used above the 16 MB line in kilobytes.

IO activity per DD Name

Application Performance Analyzer Automation Assistant lists the 10 DD-statements with the highest EXCP counts. The blocksize of the dataset and the EXCP count is provided too.

Activating IBM Application Performance Analyzer

To activate IBM Application Performance Analyzer, perform these steps:

1 On the z/OS Watchlist screen, enter line command **A** for the required job.

```
AOZP2000 ---------------------- z/OS Watchlist ----------- Row 1 to 14 of 227
COMMAND ===>                                               SCROLL ===> PAGE

Sysplex Name : $GLOBAL              Start Date  :    /    /    YY/MM/DD
Lpar Name    :                      Start Time  :    :         HH:MM
Job Name     :                      Program Name:
Job Type     : ALL   All,Job,Stc,Tso
Line Commands: (S)elect (A)ctivate
  Date       Time  Lpar Job-Name T Pgm-Name  Elapsed CPU-Time   EXCP's ServUnit
-------------------------------------------------------------------------------
  2005-11-08 11:29 SYS9 VLF      S COFMINIT 50:21:21 00:00:09      197   162050
  2005-11-08 11:29 SYS9 JES2     S HASJES20 50:31:40 00:17:29   159660 32030591
  2005-11-08 11:29 SYS9 RACF     S IRRSSM00 50:21:33 00:00:17      531   176846
  2005-11-08 11:29 SYS9 LLA      S CSVLLCRE 50:21:57 00:00:41    21679  2314598
  2005-11-08 11:29 SYS9 BLSJPRMI S BLSQPRMI 00:00:44 00:00:05      505   120127
a 2005-11-08 11:30 SYS9 CAS9     S CAIRIM   00:01:00 00:00:13    17614   301585
  2005-11-08 11:30 SYS9 VTAM     S ISTINM01 50:21:35 00:02:38     4057  2551962
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:16 00:00:00        0        0
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:24 00:00:02        0        0
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:17 00:00:00        0        0
  2005-11-08 11:30 SYS9 NFSC     S BPXVCLNY 50:19:13 00:00:06      297   104955
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:20 00:00:00        0        0
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:18 00:00:00        0        0
  2005-11-08 11:30 SYS9 INIT     S IEFIIC   50:30:18 00:00:00        0        0
```

2 Press Enter. The 'Activate IBM Application Performance Analyzer Request' (see page 56) screen appears.

CICS Watchlist

To display the CICS Watchlist, perform these steps:

1. Select **Option 4** (CICS) on the Primary Option menu.
2. The CICS Watchlist screen displays.

```
AOZP3OOO ---------------------- CICS Watchlist ------------ Row 1 to 14 of 79
COMMAND ===>                                                 SCROLL ===> PAGE

CICS PlexName: $GLOBAL               Interval
CICS Appl-ID :                       Start Date :    /    /    YY/MM/DD
Job Name     :                             Time :    :         HH:MM
Program Name :                       TRX Name   :
Line Commands: (S)elect (A)ctivate
  Date       Time  Appl-ID  Job-Name PGM-Name TRX  T  Nbr-TRX CPU-Time File-Req
-------------------------------------------------------------------------------
  2005-12-16 07:41 CICS     CICSA    DFHAPATT CSSY U        9 00:00:06      813
  2005-12-16 07:41 CICS     CICSA    DFHZCGRP CGRP U        1 00:00:00        0
  2005-12-16 14:13 CICS     CICSA    DFHEDAP  CEDA T      356 00:00:59    34135
  2005-12-16 14:14 CICS     CICSA    DFHEMTP  CEMT T       81 00:00:01        0
  2005-12-17 16:09 CICS     CICSA    DFHAPATT CSSY U       18 00:00:15     1626
  2005-12-17 16:09 CICS     CICSA    DFHZCGRP CGRP U        2 00:00:00        0
  2005-12-17 23:02 CICS     CICSA    DFHEDAP  CEDA T       75 00:00:29    17890
  2005-12-17 23:04 CICS     CICSA    DFHEDAP  CEDB T        3 00:00:00        1
  2005-12-17 23:04 CICS     CICSA    DFHEDAP  CEDC T       27 00:00:03     2017
  2005-12-17 23:07 CICS     CICSA    DFHEMTP  CEMT T       55 00:00:00        0
  2005-12-19 00:06 CICS     CICSA    DFHEMTP  CEMT T        3 00:00:00        0
  2005-12-19 00:10 CICS     CICSA    DFHEDAP  CEDA T        4 00:00:00        2
  2005-12-20 08:21 CICS     CICSA    DFHAPATT CSSY U        9 00:00:08      813
  2005-12-20 08:21 CICS     CICSA    DFHZCGRP CGRP U        1 00:00:00        0
```

Filter Options

The following fields can be used as filter options:

CICS PlexName

Required field. Fully qualified name of the desired CICS Plex.

CICS Appl-ID

Optional field. Fully qualified CICS application ID or mask (e.g. CICSA*).

Start Date and Start Time

Optional field. Date/Time of the oldest list entry.

The date format is YY/MM/DD.
The time format is HH:MM.

Job Name

Optional field. Fully qualified job name or mask (e.g. JOBX*).

Program Name

Optional field. Fully qualified program name or mask (e.g. PROG*).

TRX Name

Optional field. Fully qualified transaction name or mask (e.g. TRA*).

Note A filter option will be ignored, if you leave it blank.

Watchlist Details

For a detailed CICS transaction overview, perform these steps:

1 On the CICS Watchlist screen, enter line command **S** next to the required transaction.

```
AOZP3000 ----------------------- CICS Watchlist ------------ Row 1 to 14 of 79
COMMAND ===>                                                  SCROLL ===> PAGE

CICS PlexName: $GLOBAL               Interval
CICS Appl-ID :                       Start Date :    /    /    YY/MM/DD
Job Name     :                                :    :         HH:MM
Program Name :                       TRX Name   :
Line Commands: (S)elect (A)ctivate
  Date       Time  Appl-ID  Job-Name PGM-Name TRX  T  Nbr-TRX CPU-Time File-Req
-------------------------------------------------------------------------------
  2005-12-16 07:41 CICS     CICSA    DFHAPATT CSSY U        9 00:00:06      813
  2005-12-16 07:41 CICS     CICSA    DFHZCGRP CGRP U        1 00:00:00        0
  2005-12-16 14:13 CICS     CICSA    DFHEDAP  CEDA T      356 00:00:59    34135
  2005-12-16 14:14 CICS     CICSA    DFHEMTP  CEMT T       81 00:00:01        0
  2005-12-17 16:09 CICS     CICSA    DFHAPATT CSSY U       18 00:00:15     1626
  2005-12-17 16:09 CICS     CICSA    DFHZCGRP CGRP U        2 00:00:00        0
  2005-12-17 23:02 CICS     CICSA    DFHEDAP  CEDA T       75 00:00:29    17890
  2005-12-17 23:04 CICS     CICSA    DFHEDAP  CEDB T        3 00:00:00        1
  2005-12-17 23:04 CICS     CICSA    DFHEDAP  CEDC T       27 00:00:03     2017
  2005-12-17 23:07 CICS     CICSA    DFHEMTP  CEMT T       55 00:00:00        0
  2005-12-19 00:06 CICS     CICSA    DFHEMTP  CEMT T        3 00:00:00        0
  2005-12-19 00:10 CICS     CICSA    DFHEDAP  CEDA T        4 00:00:00        2
  2005-12-20 08:21 CICS     CICSA    DFHAPATT CSSY U        9 00:00:08      813
  2005-12-20 08:21 CICS     CICSA    DFHZCGRP CGRP U        1 00:00:00        0
```

2 Press Enter. The 'CICS Watchlist Details' screen appears

```
AOZP3100 ------------------- CICS Watchlist Details --------------------------
COMMAND ===>                                                  SCROLL ===> PAGE

CICS Plex Name: $GLOBAL    Interval                  Program Name : DFHEDAP
CICS Appl-ID  : CICS         Start Date  : 2005-12-16 Transact Name: CEDA
Job Name      : CICSA              Time  : 14:13:33   Transact Type: TO
Lpar Name     : SYS1         End   Date  : 2005-12-16 Transact Prio: 1
CICS Version  : 6.1                Time  : 14:37:26   TRX Executed : 356
-------------------------------------------------------------------------------
File Req.Total:      34135 Interval Req. :          0 Elap.Time Tot: 00:13:25
File Req./TRX :         95 FEPI Requests :          0 Elap.Time Avg:     2.26
File Gets     :         22 Activity Req. :          0 Resp.Time Tot: 00:13:25
File Puts     :          0 Container Req.:          0 Resp.Time Avg:     2.26
File Browses  :      32067 Event Requests:          0 Int.Resp Time: 00:01:10
File Adds     :          0 WEB Requests  :          0 Task DispTime: 00:01:09
File Deletes  :          0 Document Req. :          0 Task CPU Tot.: 00:00:59
File Others   :       2046 Socket Req.   :          0 Task CPU Avg.:     0.16
TD Requests   :          0 IMS Requests  :          0 Task SuspTime: 00:12:15
TS Requests   :          0 DB2 Requests  :          0 Dispatch Wait: 00:00:00
BMS Requests  :          0 Program Links :      44621 ExceptionWait: 00:00:00
Journal Req.  :          0 Program Loads :         17 IMS Wait Time: 00:00:00
Logger Writes :          0                           DB2 Wait Time: 00:00:00
```

Transaction Data

The following Transaction Data fields display:

CICS Plex Name

Name of the CICS Plex where the transaction occurred.

CICS Appl-ID

CICS application identification where the transaction occurred.

Interval

CICS transactions data is accumulated on interval. The start time of the interval is the first CICS transaction seen during accumulation. The stop time is the end time of the last transaction. An interval can cover maximal one day. When the extract process has been run several times a day then one interval covers the accumulated input of this extract run.

Start Date and Time

Date and time, when the transaction starts (YYYY-MM-DD, HH:MM:SS)

Stop Date and Time

Date and time, when the transaction ends (YYYY-MM-DD, HH:MM:SS)

CICS Version

CICS Version number.

Job Name

Job name of the CICS region.

Lpar Name

Lpar name of the z/OS system where the CICS region was running.

Program Name

Name of the program where the transaction is assigned to.

Transact Name

Name of the CICS transaction.

Transact Type

Start type of the CICS transaction. It describes the reason, why the transaction was started:

- *S* automatic transaction initiation (ATI) without data
- *SD* automatic transaction initiation (ATI) with data
- *SZ* front end programming interface (FEPI)
- *TO* terminal input
- *TP* terminal TCTTE transaction ID
- *QD* transient data trigger level
- *U* user request

Transact Prio

Transaction priority (0 - 255).

TRX Executed

Number of times the transaction was executed.

Resource Consumption

The following Resource Consumption fields display:

File Req.Total

Total number of file request. This field is the summation of the fields:

File Gets file get requests.
File Puts file out requests.
File Browses file browse requests.
File Adds file add requests.
File Deletes file delete requests.
File Others other file requests.

File Req/TRX

The number of file request per transaction.

TD Requests

Total number of Transient Data requests.

TS Requests

Total number of Temporary Storage requests.

BMS Requests

Total number of Basic Mapping Support requests.

Journal Req.

Total number of journal requests.

Logger Writes

Total number of writes to logger.

Interval Req.

Total number of interval requests.

FEPI Requests

Total number of Front End Programming Interface requests.

Activity Req.

Total number of activity requests.

Container Req.

Total number of container requests.

Event Requests

Total number of event requests.

WEB Requests

Total number of Web requests through TCP/IP services.

Document Req.

Total number of document request.

Socket Req.

Total number of socket requests.

IMS Requests

Total number of IMS request.

DB2 Requests

Total number of DB2 requests.

Program Links

Count of program links.

Program Loads

Count of program loads.

Elap.Time Tot

Total time of duration in format HH:MM:SS.

Elap.Time Avg

Average elapsed time per transaction in format ssss.th.

Resp. Time Tot

Total transaction response time in format HH:MM:SS

Resp. Time Avg

Average transaction response time in format ssss.th

Int.Resp Time

CICS internal response time of transaction in format HH:MM:SS

Task DispTime

Total time where transaction was not suspended in format HH:MM:SS.

Task SuspTime

Total time where transaction was suspended in format HH:MM:SS.

Task CPU Tot

Total CPU time consumed by transaction in format HH:MM:SS.

Task CPU Avg

Average CPU time consumed by transaction in format ssss.th.

Dispatch Wait

Total time where transaction was waiting to become active in format HH:MM:SS.

Exception Wait

Total time where transaction was waiting for an exception condition in format HH:MM:SS.

IMS Wait Time

Time where transaction was waiting for all IMS requests in format HH:MM:SS.

DB2 Wait Time

Time where transaction was waiting for all DB2 requests in format HH:MM:SS.

Activating IBM Application Performance Analyzer

To activate IBM Application Performance Analyzer, perform these steps:

1 Enter line command **A** for the required transaction.

```
AOZP3000 ---------------------- CICS Watchlist ------------ Row 1 to 14 of 79
COMMAND ===>                                                SCROLL ===> PAGE

CICS PlexName: $GLOBAL               Interval
CICS Appl-ID :                       Start Date :    /    /    YY/MM/DD
Job Name     :                             Time :    :         HH:MM
Program Name :                       TRX Name   :
Line Commands: (S)elect (A)ctivate
  Date       Time  Appl-ID  Job-Name PGM-Name TRX  T  Nbr-TRX CPU-Time File-Req
-------------------------------------------------------------------------------
  2005-12-16 07:41 CICS     CICSA    DFHAPATT CSSY U        9 00:00:06      813
a 2005-12-16 07:41 CICS     CICSA    DFHZCGRP CGRP U        1 00:00:00        0
  2005-12-16 14:13 CICS     CICSA    DFHEDAP  CEDA T      356 00:00:59    34135
  2005-12-16 14:14 CICS     CICSA    DFHEMTP  CEMT T       81 00:00:01        0
  2005-12-17 16:09 CICS     CICSA    DFHAPATT CSSY U       18 00:00:15     1626
  2005-12-17 16:09 CICS     CICSA    DFHZCGRP CGRP U        2 00:00:00        0
  2005-12-17 23:02 CICS     CICSA    DFHEDAP  CEDA T       75 00:00:29    17890
  2005-12-17 23:04 CICS     CICSA    DFHEDAP  CEDB T        3 00:00:00        1
  2005-12-17 23:04 CICS     CICSA    DFHEDAP  CEDC T       27 00:00:03     2017
  2005-12-17 23:07 CICS     CICSA    DFHEMTP  CEMT T       55 00:00:00        0
  2005-12-19 00:06 CICS     CICSA    DFHEMTP  CEMT T        3 00:00:00        0
  2005-12-19 00:10 CICS     CICSA    DFHEDAP  CEDA T        4 00:00:00        2
  2005-12-20 08:21 CICS     CICSA    DFHAPATT CSSY U        9 00:00:08      813
  2005-12-20 08:21 CICS     CICSA    DFHZCGRP CGRP U        1 00:00:00        0
```

2 Press ENTER. The 'Activate IBM Application Performance Analyzer Request' (see page 56) screen appears.

DB2 Watchlist

To display the DB2 Watchlist, perform these steps:

1. Select **Option *5*** (**DB2**) on the Primary Option menu.
2. The DB2 Watchlist screen displays.

```
AOZP4000 ---------------------- DB2 Watchlist ------------- Row 1 to 14 of 81
COMMAND ===>                                                SCROLL ===> PAGE

DB2 Plex Name: $GLOBAL         Interval Start Date  :    /    /    YY/MM/DD
DB2 Subsys ID:                              Time  :    :         HH:MM
Job Name     :                        Plan Name   :
Connect Type : ALL                    Program Name:
Line Commands: (S)elect (A)ctivate
  Date       Time  DB2  Job-Name Auth-ID  PlanName  Elapsed T CPU-Time SQL-Call
------------------------------------------------------------------------------
  2006-04-02 22:06 DB2T D588FCGO U$DB21   HAA22OP2 00:01:01 D 00:00:13      110
  2006-04-02 22:06 DB2D G588FCOO U$DB21   DSNUTIL  00:00:36 U 00:00:02        0
  2006-04-02 22:07 DB2T D588FCOO U$DB21   DSNUTIL  00:03:15 U 00:00:11        0
  2006-04-02 22:11 DB2T D588MOG1 U$DB21   HAA22OP2 00:00:36 D 00:00:12      110
  2006-04-02 22:12 DB2T D588RSGO U$DB21   HAA22OP2 00:00:20 D 00:00:09       96
  2006-04-02 22:12 DB2T D588RSTO U$DB21   DSNUTIL  00:00:30 U 00:00:08        0
  2006-04-02 22:13 DB2T D588RSTO U$DB21   DSNUTIL  00:00:39 U 00:00:12        0
  2006-04-03 01:00 DB2P P581FCOO U$DB21   DSNUTIL  00:11:04 U 00:00:27        0
  2006-04-03 01:00 DB2X P596FCOO U$DB21   DSNUTIL  00:11:52 U 00:00:29        0
  2006-04-03 02:30 DB2P Q5011COD ZE0011E  DSNREXX  00:00:16 D 00:00:10   119864
  2006-04-03 06:53 DB2P P5011LAD X9E0679  QMF710   00:01:35 D 00:00:17   231225
  2006-04-03 06:53 DB2T X9E9232  X9E9232  DSNESPRR 00:01:15 T 00:00:27     4328
  2006-04-03 06:58 DB2P ENTRFABI X9E0708  P011P007 00:01:16 A 00:00:27     4343
  2006-04-03 07:08 DB2T X9E9232A X9E9232  DSNTEP2  00:01:17 B 00:00:27     5639
```

Filter Options

The following fields can be used as filter options:

DB2 Plex Name

Required field. Fully qualified name of the desired DB2 Plex.

DB2 Subsys ID

Optional field. Fully qualified DB2 subsystem ID or mask (e.g. DS*).

Start Date and Start Time

Optional field. Date/Time of the oldest list entry.

The date format is YY/MM/DD.
The time format is HH:MM.

Job Name

Optional field. Fully qualified job name or mask (e.g. JOBX*).

Plan Name

Optional field. Fully qualified plan name or mask (e.g. PLAN*).

ConnectType

Required field. The type of connections to be listed.

You can specify:

- *ALL* for all types

- *BATCH* or *B* for batch connections
- *DB2CALL* or *D* for DB2 calls
- *SERVER* or *S* for server connections
- *TSO* or *T* for TSO connections
- *UTILITY* or *U* for DB2 utility connections.

Program Name

Optional field. Fully qualified program name or mask (e.g. PGM*).

Note A filter option will be ignored, if you leave it blank.

Watchlist Details

For a detailed DB2 connection overview, perform these steps:

1 On the DB2 Watchlist screen, enter line command **S** next to the required connection.

```
AOZP4000 ----------------------- DB2 Watchlist ------------- Row 1 to 14 of 81
COMMAND ===>                                                 SCROLL ===> PAGE

DB2 Plex Name: $GLOBAL         Interval Start Date  :    /    /    YY/MM/DD
DB2 Subsys ID:                              Time    :    :         HH:MM
Job Name     :                         Plan Name   :
Connect Type : ALL                     Program Name:
Line Commands: (S)elect (A)ctivate
  Date       Time  DB2  Job-Name Auth-ID  PlanName  Elapsed T CPU-Time SQL-Call
-------------------------------------------------------------------------------
  2006-04-02 22:06 DB2T D588FCGO U$DB21   HAA22OP2 00:01:01 D 00:00:13      110
  2006-04-02 22:06 DB2D G588FCOO U$DB21   DSNUTIL  00:00:36 U 00:00:02        0
  2006-04-02 22:07 DB2T D588FCOO U$DB21   DSNUTIL  00:03:15 U 00:00:11        0
  2006-04-02 22:11 DB2T D588MOG1 U$DB21   HAA22OP2 00:00:36 D 00:00:12      110
  2006-04-02 22:12 DB2T D588RSGO U$DB21   HAA22OP2 00:00:20 D 00:00:09       96
  2006-04-02 22:12 DB2T D588RSTO U$DB21   DSNUTIL  00:00:30 U 00:00:08        0
  2006-04-02 22:13 DB2T D588RSTO U$DB21   DSNUTIL  00:00:39 U 00:00:12        0
  2006-04-03 01:00 DB2P P581FCOO U$DB21   DSNUTIL  00:11:04 U 00:00:27        0
  2006-04-03 01:00 DB2X P596FCOO U$DB21   DSNUTIL  00:11:52 U 00:00:29        0
  2006-04-03 02:30 DB2P Q5011COD ZE0011E  DSNREXX  00:00:16 D 00:00:10   119864
  2006-04-03 06:53 DB2P P5011LAD X9E0679  QMF710   00:01:35 D 00:00:17   231225
  2006-04-03 06:53 DB2T X9E9232  X9E9232  DSNESPRR 00:01:15 T 00:00:27     4328
  2006-04-03 06:58 DB2P ENTRFABI X9E0708  P011P007 00:01:16 A 00:00:27     4343
  2006-04-03 07:08 DB2T X9E9232A X9E9232  DSNTEP2  00:01:17 B 00:00:27     5639
```

2 Press Enter. The 'DB2 Watchlist Details' screen appears.

```
AOZP4100 ------------------- DB2 Watchlist Details ---------------------------
COMMAND ===>                                                 SCROLL ===> PAGE

DB2 Plex Name: $GLOBAL      Start Date  : 2006-04-03  DB2 CPU Time :   00:00:17
DB2 Subsys ID: DB2P  V7.1          Time  : 06:53:19    DB2 Elapsed  :   00:01:35
Lpar Name    : SEC1         Stop  Date  : 2006-04-03  DB2 IO Wait  :      1.166
Job Name     : P5011LAD            Time  : 06:55:19    DB2 Lock Wait:      0.058
Plan Name    : QMF710       Program Name: DSQCBOR     Acct. Reason :         0C
Auth. ID     : X9E0679      Connect Type: DB2CALL     Loc. Location: FABIDB2E
                                                                 More:     +
----------------------------SQL Calls-------------------------------------------
Total        :     231225   Fetch       :          8  Prepare      :        612
Close        :          2   Insert      :     230387  Select       :          7
Delete       :        205   Open        :          2  Update       :          2
--------------------------DB2 Activity-----------------------------------------
Get Pages    :    1247362   Sync Reads  :       1353  SQL Calls/sec:       2433
Get Pages/sec:      13130   Sync Reads/s:         14  CPU Time/SQL :      0.000
WaitTime/Page:      0.000   Pages/SyncRd:        921  Wait Time/SQL:      0.000
Sync Writes  :          0
-------------------------Remote Activity-------------------------------------
Remote Location:
SQL Sent       :          0   SQL Received    :          0
Rows Sent      :          0   Rows Retrieved  :          0
Bytes Sent     :          0   Bytes Received  :          0
Commit Sent    :          0   Commit Received :          0
Abort Req. Sent:          0   Abort Req. Recvd:          0
```

DB2 Data

The following DB2 Data fields display:

DB2 Plex Name

Name of the DB2 Plex where the connection occurred.

DB2 Subsys ID

DB2 subsystem identification where the connection occurred.

Date

The Date on which the connection occurred in format YYYY-MM-DD.

Time

The Time on which the connection occurred in format HH:MM:SS.

Lpar Name

Lpar name of the z/OS system where the DB2 subsystem was running.

Job Name

Name of the job assigned to the connection.

Auth. ID

DB2 authorization identification which had performed the connection.

Plan Name

Name of the target DB2 plan.

Connection Type

Type of the DB2 connection (BATCH, DB2CALL, SERVER, TSO or UTILITY).

Program Name

Name of the program executed on the DB2 connection.

Local Location

Name of the location where the connection was executed.

Resource Consumption

The following Resource Consumption fields display:

DB2 CPU Time

DB2 CPU time consumed by the connection.

DB2 Elapsed

Time where the connection was connected to DB2.

DB2 IO Wait

Accumulated wait time for database I/O in units of seconds.

DB2 Lock Wait

Accumulated wait time due to lock conditions in units of seconds.

Acct. Reason

DB2 reason code why accounting is invoked. Press PF1 for a detailed explanation of the reason codes.

SQL Calls

The number of SQL calls. Several different types of SQL calls are counted, and all are summarized in the Total field.

DB2 Activity

The following DB2 fields display:

Get Pages

Number of total pages get from the DB2 database.

Sync Reads

Number of synchronous read I/O.

Sync Writes

Number of immediate (synchronous) write I/O.

Pages/Sync.Read

Average number of pages get per synchronous reads I/O.

Wait Time/Page

Average wait time for getting one page in units of seconds.

CPU Time/SQL

Average DB2 CPU time consumed by one SQL call in units of seconds.

Wait Time/SQL

Average wait time of one SQL call in units of seconds.

SQL Calls/sec

Average count of SQL calls per second.

Get Pages/sec

Average count of pages get per second.

Remote Activity

The following Remote Activity fields display:

Remote Location

Name of the remote location connected to DB2.

SQL Sent

Number of the SQL statements sent to server.

SQL Received

Number of the SQL statements received from requester.

Rows Sent

Number of rows of data sent to requester.

Rows Retrieved

Number of rows of data retrieved from server.

Bytes Sent

Number of bytes of data sent.

Bytes Received

Number of bytes of data received.

Commit Sent

Number of commit requests sent to server.

Commit Received

Number of commit requests received from requester.

Activating IBM Application Performance Analyzer

To activate IBM Application Performance Analyzer, perform these steps:

1 Enter line command **A** for the required connection.

```
AOZP4000 ----------------------- DB2 Watchlist ------------- Row 1 to 14 of 81
COMMAND ===>                                                  SCROLL ===> PAGE

DB2 Plex Name: $GLOBAL         Interval Start Date  :    /    /    YY/MM/DD
DB2 Subsys ID:                              Time  :    :         HH:MM
Job Name     :                        Plan Name   :
Connect Type : ALL                    Program Name:
Line Commands: (S)elect (A)ctivate
  Date       Time  DB2  Job-Name Auth-ID  PlanName  Elapsed T CPU-Time SQL-Call
-------------------------------------------------------------------------------
  2006-04-02 22:06 DB2T D588FCGO U$DB21   HAA22OP2 00:01:01 D 00:00:13      110
  2006-04-02 22:06 DB2D G588FCOO U$DB21   DSNUTIL  00:00:36 U 00:00:02        0
  2006-04-02 22:07 DB2T D588FCOO U$DB21   DSNUTIL  00:03:15 U 00:00:11        0
a 2006-04-02 22:11 DB2T D588MOG1 U$DB21   HAA22OP2 00:00:36 D 00:00:12      110
  2006-04-02 22:12 DB2T D588RSGO U$DB21   HAA22OP2 00:00:20 D 00:00:09       96
  2006-04-02 22:12 DB2T D588RSTO U$DB21   DSNUTIL  00:00:30 U 00:00:08        0
  2006-04-02 22:13 DB2T D588RSTO U$DB21   DSNUTIL  00:00:39 U 00:00:12        0
  2006-04-03 01:00 DB2P P581FCOO U$DB21   DSNUTIL  00:11:04 U 00:00:27        0
  2006-04-03 01:00 DB2X P596FCOO U$DB21   DSNUTIL  00:11:52 U 00:00:29        0
  2006-04-03 02:30 DB2P Q5011COD ZEO011E  DSNREXX  00:00:16 D 00:00:10   119864
  2006-04-03 06:53 DB2P P5011LAD X9E0679  QMF710   00:01:35 D 00:00:17   231225
  2006-04-03 06:53 DB2T X9E9232  X9E9232  DSNESPRR 00:01:15 T 00:00:27     4328
  2006-04-03 06:58 DB2P ENTRFABI X9E0708  P011P007 00:01:16 A 00:00:27     4343
  2006-04-03 07:08 DB2T X9E9232A X9E9232  DSNTEP2  00:01:17 B 00:00:27     5639
```

2 Press ENTER. The 'Activate IBM Application Performance Analyzer Request' (see page 56) screen appears.

IMS Watchlist

To display the IMS Watchlist, perform these steps:

1 Select **Option 6** (**IMS**) on the Primary Option menu.

2 The IMS Watchlist screen displays.

```
AOZP5000 ---------------------- IMS Watchlist ------------ Row 1 to 14 of 152
COMMAND ===>                                               SCROLL ===> PAGE

IMS Plex Name: $GLOBAL          Interval Start Date :    /    /    YY/MM/DD
IMS ID       :                                Time :    :         HH:MM
Job Name     :                            PSB Name :
Program Type : ALL  ALL,MPP,BMP           TRX Name :
Line Commands: (S)elect (A)ctivate
  Date       Time  IMS  Job-Name TRX-Name PSB-Name  Nbr-TRX T CPU-Time DB-Calls
-------------------------------------------------------------------------------
  2006-04-25 03:32 IMSP IMSPRG02 TMEA     DCTMEAN1        1 M 00:00:00       12
  2006-04-25 03:32 IMSP IMSPRG03 TMUS     DCTMUSN1        1 M 00:00:00       50
  2006-04-25 05:23 IMSP IMSPRG04 VOAP     DCVOAPN1       54 M 00:00:01      198
  2006-04-25 05:23 IMSP IMSPRG03 VOAP     DCVOAPN1       98 M 00:00:02      328
  2006-04-25 05:23 IMSP IMSPRG06 VOAP     DCVOAPN1       80 M 00:00:02      284
  2006-04-25 05:23 IMSP IMSPRG04 AL13     DCAL13N1        5 M 00:00:00        0
  2006-04-25 05:30 IMSP IMSPRG03 GP03     DCGP03N1        7 M 00:00:00        0
  2006-04-25 05:30 IMSP IMSPRG06 PN27     DCPN27N1       60 M 00:00:23    16249
  2006-04-25 05:44 IMSP IMSPRG02 SO04     DCSP04N1        5 M 00:00:00       76
  2006-04-25 05:45 IMSP IMSPRG04 SOSE     DCSPSEN1        3 M 00:00:00        0
  2006-04-25 05:45 IMSP IMSPRG03 SO06     DCSP06N1        3 M 00:00:00       41
  2006-04-25 05:45 IMSP IMSPRG04 SO24     DCSP24N1        6 M 00:00:00      514
  2006-04-25 05:45 IMSP IMSPRG03 KDK2     DCKDK2N1        1 M 00:00:00        0
  2006-04-25 05:45 IMSP IMSPRG06 SO00     DCSP00N1        8 M 00:00:00        0
```

Filter Options

The following fields can be used as filter options:

IMS Plex Name

Required field. Fully qualified name of the desired IMS Plex.

IMS ID

Optional field. Fully qualified IMS subsystem ID or mask (e.g. IMS*).

Start Date and Start Time

Optional field. Date/Time of the oldest list entry.

The date format is YY/MM/DD.
The time format is HH:MM

Job Name

Optional field. Fully qualified job name or mask (e.g. JOBX*).

Program Type

Required field. The type of IMS programs to be listed.

You can specify:

- *ALL* for all types,
- *BMP* or *B* for batch message processing or

- *MMP* or *M* for message processing programs.

PSB Name

Optional field. Fully qualified PSB name or mask (e.g. P*).

TRX Name

Optional field. Fully qualified IMS transaction name or mask (e.g. TR*).

Note A filter option will be ignored, if you leave it blank.

Watchlist Details

For a detailed IMS transaction overview, perform these steps:

1 On the IMS Watchlist screen, enter line command **S** next to the required transaction.

```
AOZP5000 ---------------------- IMS Watchlist ------------ Row 1 to 14 of 152
COMMAND ===>                                               SCROLL ===> PAGE

IMS Plex Name: $GLOBAL          Interval Start Date :    /    /    YY/MM/DD
IMS ID       :                                Time :    :         HH:MM
Job Name     :                             PSB Name :
Program Type : ALL  ALL,MPP,BMP            TRX Name :
Line Commands: (S)elect (A)ctivate
  Date       Time  IMS  Job-Name TRX-Name PSB-Name  Nbr-TRX T CPU-Time DB-Calls
------------------------------------------------------------------------------
  2006-04-25 03:32 IMSP IMSPRG02 TMEA     DCTMEAN1        1 M 00:00:00       12
  2006-04-25 03:32 IMSP IMSPRG03 TMUS     DCTMUSN1        1 M 00:00:00       50
  2006-04-25 05:23 IMSP IMSPRG04 VOAP     DCVOAPN1       54 M 00:00:01      198
  2006-04-25 05:23 IMSP IMSPRG03 VOAP     DCVOAPN1       98 M 00:00:02      328
  2006-04-25 05:23 IMSP IMSPRG06 VOAP     DCVOAPN1       80 M 00:00:02      284
  2006-04-25 05:23 IMSP IMSPRG04 AL13     DCAL13N1        5 M 00:00:00        0
  2006-04-25 05:30 IMSP IMSPRG03 GPO3     DCGPO3N1        7 M 00:00:00        0
s 2006-04-25 05:30 IMSP IMSPRG06 PN27     DCPN27N1       60 M 00:00:23    16249
  2006-04-25 05:44 IMSP IMSPRG02 SO04     DCSP04N1        5 M 00:00:00       76
  2006-04-25 05:45 IMSP IMSPRG04 SOSE     DCSPSEN1        3 M 00:00:00        0
  2006-04-25 05:45 IMSP IMSPRG03 SO06     DCSP06N1        3 M 00:00:00       41
  2006-04-25 05:45 IMSP IMSPRG04 SO24     DCSP24N1        6 M 00:00:00      514
  2006-04-25 05:45 IMSP IMSPRG03 KDK2     DCKDK2N1        1 M 00:00:00        0
  2006-04-25 05:45 IMSP IMSPRG06 SOOO     DCSPOON1        8 M 00:00:00        0
```

2 Press Enter. The 'IMS Watchlist Details' screen appears.

```
AOZP5100 ------------------- IMS Watchlist Details --------------------------
COMMAND ===>                                                SCROLL ===> PAGE

IMS Plex Name : $GLOBAL    Interval
IMS ID        : IMSP         Start Date : 2006-04-25   TRX Name    : PN27
Job Name      : IMSPRG06              Time : 05:30:38     TRX Executed: 60
Step Name     : REGION       End   Date : 2006-04-25   Comp. Code  : 0000
PSB Name      : DCPN27N1              Time : 13:16:00     CPU Time    : 00:00:23
Program Name  : DCPN27N1   Elapsed Time : 01:22:32     DB Calls/TRX:      270
Program Type  : MPP
----------IMS DB Calls------------------------IMS DC Calls--------------------
         Total:      16249         Total:        131
         GU   :      11391         GU   :         71   APSB :          0
         GN   :       4840         GN   :          0   DPSB :          0
         GNP  :          2         ISRT :         60   LOG  :          0
         GHU  :          9         PURG :          0   CHNG :          0
         GHN  :          0         CMD  :          0   GCMD :          0
         GHNP :          0         ICMD :          0   RCMD :          0
         ISRT :          5         CHKP :          0   XRST :          0
         DLET :          0         SETS :          0   SETU :          0
         REPL :          2         ROLB :          0   ROLS :          0
```

Transaction Data

The following Transaction Data fields display:

IMS Plex Name

Name of the IMS Plex where the transaction was executed.

IMS ID

IMS control region name where the transaction was executed.

Job Name

Name of the IMS dependent region.

PSB Name

Name of the PSB used by program.

Interval

IMS transactions data is accumulated on interval. The start time of the interval is the first IMS transaction seen during accumulation. The stop time is the end time of the last transaction. An interval can cover maximal one day. When the extract process has been run several times a day then one interval covers the accumulated input of this extract run.

Start Date and Time

Date and time interval, when the first transaction started (YYYY-MM-DD, HH:MM:SS).

Stop Date and Time

Date and time, when the last transaction ended (YYYY-MM-DD, HH:MM:SS).

Program Name

Name of executed program.

Program Type

Type of the program (BMP or MPP).

Transact Name

Name of the transaction executed on IMS.

Executed TRX

Number of executed transactions.

Elapsed Time

Sum of all transaction elapsed times. Format: HH:MM:SS.

CPU Time

Sum of CPU time consumed by this transaction within the interval. Format: HH:MM:SS.

Comp. Code

Transaction completion code.

DB Calls per TRX

Number of DB calls per transaction.

IMS DB Calls

The following IMS DB Calls display:

Total

Total number of data base calls issued.

GU

Number of data base GU calls issued.

GN

Number of data base GN calls issued.

GNP

Number of data base GNP calls issued.

GHU

Number of data base GHU calls issued.

GHN

Number of data base GHN calls issued.

GHNP

Number of data base GHNP calls issued.

ISRT

Number of data base ISRT calls issued.

DLET

Number of data base DLET calls issued.

REPL

Number of data base REPL calls issued.

IMS DC Calls

The following IMS DC Calls display:

Total

Total number of DC calls issued.

GU

Number of message queue GU calls issued.

GN

Number of message queue GN calls issued.

ISRT

Number of message queue ISRT calls issued.

PURGE

Number of message queue PURGE calls issued.

CMD

Number of CMD calls issued.

ICMD

Number of DL/I ICMD calls issued.

CHKP

Number of DL/I CHKP calls issued.

SETS

Number of DL/I SETS calls issued.

ROLB

Number of DL/I ROLB calls issued.

APSB

Number of DL/I APSB calls issued.

DPSB

Number of DL/I DPSB calls issued.

LOG

Number of DL/I LOG calls issued.

CHNG

Number of DL/I message CHNG calls issued.

GCMD

Number of GCMD calls issued.

RCMD

Number of DL/I RCMD calls issued.

XRST

Number of DL/I XRST calls issued.

SETU

Number of DL/I SETU calls issued.

ROLS

Number of DL/I ROLS calls issued.

Activating IBM Application Performance Analyzer

To activate IBM Application Performance Analyzer, perform these steps:

1 On the IMS Watchlist screen, enter line command **A** for the required transaction.

```
AOZP5000 ----------------------- IMS Watchlist ------------ Row 1 to 14 of 152
COMMAND ===>                                                SCROLL ===> PAGE

IMS Plex Name: $GLOBAL          Interval Start Date :    /    /    YY/MM/DD
IMS ID       :                                  Time :    :         HH:MM
Job Name     :                               PSB Name :
Program Type : ALL  ALL,MPP,BMP              TRX Name :
Line Commands: (S)elect (A)ctivate
  Date       Time  IMS  Job-Name TRX-Name PSB-Name  Nbr-TRX T CPU-Time DB-Calls
------------------------------------------------------------------------------
  2006-04-25 03:32 IMSP IMSPRG02 TMEA     DCTMEAN1        1 M 00:00:00       12
  2006-04-25 03:32 IMSP IMSPRG03 TMUS     DCTMUSN1        1 M 00:00:00       50
a 2006-04-25 05:23 IMSP IMSPRG04 VOAP     DCVOAPN1       54 M 00:00:01      198
  2006-04-25 05:23 IMSP IMSPRG03 VOAP     DCVOAPN1       98 M 00:00:02      328
  2006-04-25 05:23 IMSP IMSPRG06 VOAP     DCVOAPN1       80 M 00:00:02      284
  2006-04-25 05:23 IMSP IMSPRG04 AL13     DCAL13N1        5 M 00:00:00        0
  2006-04-25 05:30 IMSP IMSPRG03 GP03     DCGP03N1        7 M 00:00:00        0
  2006-04-25 05:30 IMSP IMSPRG06 PN27     DCPN27N1       60 M 00:00:23    16249
  2006-04-25 05:44 IMSP IMSPRG02 SO04     DCSP04N1        5 M 00:00:00       76
  2006-04-25 05:45 IMSP IMSPRG04 SOSE     DCSPSEN1        3 M 00:00:00        0
  2006-04-25 05:45 IMSP IMSPRG03 SO06     DCSP06N1        3 M 00:00:00       41
  2006-04-25 05:45 IMSP IMSPRG04 SO24     DCSP24N1        6 M 00:00:00      514
  2006-04-25 05:45 IMSP IMSPRG03 KDK2     DCKDK2N1        1 M 00:00:00        0
  2006-04-25 05:45 IMSP IMSPRG06 SOOO     DCSPOON1        8 M 00:00:00        0
```

2 Press Enter. The ‘Activate IBM Application Performance Analyzer Request’ (see page 56) screen appears.

MQSeries Watchlist

To display the MQSeries Watchlist, perform these steps:

1 Select **Option 7** (**MQSeries**) on the Primary Option menu.

2 The MQSeries Watchlist screen displays.

```
AOZP8000 --------------------- MQSeries Watchlist ---------- Row 1 to 11 of 11
COMMAND ===>                                                 SCROLL ===> PAGE

MQS PlexName : $GLOBAL              Start Date  :    /    /    YY/MM/DD
MQS Subsys-ID:                      Start Time  :    :         HH:MM
Job Name     :
Auth-ID      :
Line Commands: (S)elect (A)ctivate
  Date       Time  SSID  Job-Name  Auth-ID   Elapsed CPU-Time MQS-Reqs Avg-Reqs
------------------------------------------------------------------------------
  2005-12-15 10:37 CSQ1  CSQ1CHIN CSQ1CHIN  07:04:56 00:00:00       22        0
  2005-12-16 07:41 CSQ1  CSQ1CHIN CSQ1CHIN  80:17:04 00:00:35        3        0
  2005-12-20 08:20 CSQ1  CSQ1CHIN CSQ1CHIN  52:44:50 00:00:27        4        0
  2006-01-26 14:37 CSQ1  CSQ1CHIN CSQ1CHIN  48:13:37 00:00:33        1        0
  2006-01-29 11:36 CSQ2  CSQ1CHIN CSQ1CHIN  46:20:28 00:00:38        5        0
  2006-01-31 09:55 CSQ2  CSQ1CHIN           08:44:54 00:00:00        0        0
  2006-01-31 15:09 CSQ1  CSQ1CHIN CSQ1CHIN  03:30:46 00:00:00        3        0
  2006-02-03 14:00 CSQ1  CSQ1CHIN CSQ1CHIN  04:26:48 00:00:00        3        0
  2006-02-17 09:09 CSQ1  CSQ1CHIN           05:47:30 00:00:00       61        0
  2006-02-20 12:59 CSQ1  CSQ1CHIN           03:23:04 00:00:00       21        0
  2006-02-20 15:04 CSQ1  MQSIVP1  P390      01:17:06 00:00:00       20        0
****************************** Bottom of data ********************************
```

Filter Options

The following fields can be used as filter options:

MQS Plex Name

Required field. Fully qualified name of the desired MQSeries Plex.

MQS Subsys-ID

Optional field. Fully qualified MQSeries subsystem ID or mask (e.g. MQSS*).

Start Date and Start Time

Optional field. Date/Time of the oldest list entry.

The date format is YY/MM/DD.
The time format is HH:MM

Job Name

Optional field. Fully qualified job name or mask (e.g. JOBX*).

Auth-ID

Optional field. Fully qualified authorization ID of desired MQSeries connection(s) or mask (e.g. USER*).

Note A filter option will be ignored, if you leave it blank.

Watchlist Details

For a detailed MQSeries connection overview, perform these steps:

1 On the MQSeries Watchlist screen, enter line command **S** next to the required connection.

```
AOZP800O ---------------------- MQSeries Watchlist ---------- Row 1 to 11 of 11
COMMAND ===>                                                  SCROLL ===> PAGE

MQS PlexName : $GLOBAL              Start Date  :    /    /    YY/MM/DD
MQS Subsys-ID:                      Start Time  :    :         HH:MM
Job Name     :
Auth-ID      :
Line Commands: (S)elect (A)ctivate
  Date       Time  SSID  Job-Name  Auth-ID   Elapsed CPU-Time MQS-Reqs Avg-Reqs
------------------------------------------------------------------------------
  2005-12-15 10:37 CSQ1  CSQ1CHIN CSQ1CHIN  07:04:56 00:00:00       22        0
  2005-12-16 07:41 CSQ1  CSQ1CHIN CSQ1CHIN  80:17:04 00:00:35        3        0
  2005-12-20 08:20 CSQ1  CSQ1CHIN CSQ1CHIN  52:44:50 00:00:27        4        0
  2006-01-26 14:37 CSQ1  CSQ1CHIN CSQ1CHIN  48:13:37 00:00:33        1        0
  2006-01-29 11:36 CSQ2  CSQ1CHIN CSQ1CHIN  46:20:28 00:00:38        5        0
  2006-01-31 09:55 CSQ2  CSQ1CHIN           08:44:54 00:00:00        0        0
  2006-01-31 15:09 CSQ1  CSQ1CHIN CSQ1CHIN  03:30:46 00:00:00        3        0
  2006-02-03 14:00 CSQ1  CSQ1CHIN CSQ1CHIN  04:26:48 00:00:00        3        0
  2006-02-17 09:09 CSQ1  CSQ1CHIN           05:47:30 00:00:00       61        0
  2006-02-20 12:59 CSQ1  CSQ1CHIN           03:23:04 00:00:00       21        0
  2006-02-20 15:04 CSQ1  MQSIVP1  P390      01:17:06 00:00:00       20        0
****************************** Bottom of data ********************************
```

2 Press Enter. The 'MQSeries Watchlist Details' screen appears.

```
AOZP810O ----------------- MQSeries Watchlist Details ------------------------
COMMAND ===>                                                  SCROLL ===> PAGE

MQS Plex Name : $GLOBAL            Start Date    : 2005-12-15
MQS Subsys-ID : CSQ1                     Time    : 10:37:10
Job Name      : CSQ1CHIN           End   Date    : 2005-12-15
Lpar Name     : SYS1                     Time    : 17:42:06
Auth-ID       : CSQ1CHIN           Elapsed Time  : 07:04:56
Network Ident.: CSQ1CHIN           MQS Version   : 7.1
------------------------------------------------------------------------------
Total CPU Time       :   00:00:00  Total Get/Put Request:         22
      TCB Time       :   00:00:00  Avg. Get/Put Requests:          0
      SRB Time       :   00:00:00  CPU Time for Puts    :   00:00:00
Subsys. Elapsed Time :   00:00:00  Nbr. Puts <   100    :          4
      TCB Time       :   00:00:00  Nbr. Puts <  1000    :          4
      SRB Time       :   00:00:00  Nbr. Puts < 10000    :          0
Nbr.Entry/Exit Events:          0  Nbr. Puts > 10000    :          0
Nbr.Wait Trace Events:          0  Nbr. Gets <   100    :          2
Nbr. WAITS LOCK/LATCH:          0  Nbr. Gets <  1000    :         12
Nbr. Waits Read      :          0  Nbr. Gets < 10000    :          0
Nbr. Waits Write     :          0  Nbr. Gets > 10000    :          0
Nbr. Waits Sync.Proc.:          0  Nbr. Phase 2 Commits :        112
                                   Nbr. Backouts        :         24
```

Connection Data

The following Connection Data fields display:

MQS Plex Name

Name of the MQSeries Plex where the connection was performed.

MQS Subsys-ID

MQSeries subsystem identification where the connection was performed.

Job Name

Name of the job assigned to the connection.

Lpar Name

Lpar name of the z/OS system where the MQSeries subsystem was executed.

Start Date and Time

Date and time, when the connection starts (YYYY-MM-DD, HH:MM:SS).

Stop Date and Time

Date and time, when the connection ends (YYYY-MM-DD, HH:MM:SS).

Auth-ID

Authorization identification of the connection.

Network Ident.

Network identification of the connection.

This field contains blanks, if the job did not connect thought the TCP/IP network to MQSeries.

Elapsed Time

Difference between the end and the start time. Format: HH:MM:SS.

MQS Version

Version number of the MQSeries subsystem where the job was connected to.

Resource Consumption

The following Resource Consumption fields display:

Total

Total times in format HH:MM:SS consumed by the connection:
CPU processor time
TCB task time
SRB service time

Subsys.

Subsystem times in format HH:MM:SS consumed by the connection:
Elapsed time time on subsystem
TCB subsystem task time
SRB subsystem service time

Nbr.Entry/Exit Events

Count of events of type Exit of Entry.

Nbr.Wait Trace Events

Count of events of type Wait for Trace.

Nbr. Waits Lock/Latch

Count of waits on lock or latch.

Nbr. Waits Read

Count of waits on read.

Nbr. Waits Write

Count of waits on write.

Nbr. Waits Sync.Proc.

Count of waits on synchronize process.

Total Get/Put Requests

Total number of get and put requests.

Avg. Get/Put Requests

Average number of gets or puts per request.

CPU Time for Puts

Accumulated CPU time consumed for put.

Nbr. Puts < 100

Count of puts smaller than 100 Bytes.

Nbr. Puts < 1000

Count of puts smaller than 1.000 Bytes.

Nbr. Puts < 10000

Count of puts smaller than 10.000 Bytes.

Nbr. Puts > 10000

Count of puts larger than 10.000 Bytes.

Nbr. Gets < 100

Count of gets smaller than 100 Bytes.

Nbr. Gets < 1000

Count of gets smaller than 1.000 Bytes.

Nbr. Gets < 10000

Count of gets smaller than 10.000 Bytes.

Nbr. Gets > 10000

Count of gets larger than 10.000 Bytes.

Nbr. Phase 2 Commits

Count of commits on phase 2.

Nbr. Backouts

Total number of Backouts

Activating IBM Application Performance Analyzer

To activate IBM Application Performance Analyzer, perform these steps:

1 On the MQSeries Watchlist screen, enter line command **A** for the required transaction.

```
AOZP8000 --------------------- MQSeries Watchlist ---------- Row 1 to 11 of 11
COMMAND ===>                                                  SCROLL ===> PAGE

MQS PlexName : $GLOBAL              Start Date  :    /    /    YY/MM/DD
MQS Subsys-ID:                      Start Time  :    :         HH:MM
Job Name     :
Auth-ID      :
Line Commands: (S)elect (A)ctivate
  Date       Time  SSID  Job-Name  Auth-ID   Elapsed CPU-Time MQS-Reqs Avg-Reqs
-------------------------------------------------------------------------------
a 2005-12-15 10:37 CSQ1  CSQ1CHIN CSQ1CHIN  07:04:56 00:00:00       22        0
  2005-12-16 07:41 CSQ1  CSQ1CHIN CSQ1CHIN  80:17:04 00:00:35        3        0
  2005-12-20 08:20 CSQ1  CSQ1CHIN CSQ1CHIN  52:44:50 00:00:27        4        0
  2006-01-26 14:37 CSQ1  CSQ1CHIN CSQ1CHIN  48:13:37 00:00:33        1        0
  2006-01-29 11:36 CSQ2  CSQ1CHIN CSQ1CHIN  46:20:28 00:00:38        5        0
  2006-01-31 09:55 CSQ2  CSQ1CHIN           08:44:54 00:00:00        0        0
  2006-01-31 15:09 CSQ1  CSQ1CHIN CSQ1CHIN  03:30:46 00:00:00        3        0
  2006-02-03 14:00 CSQ1  CSQ1CHIN CSQ1CHIN  04:26:48 00:00:00        3        0
  2006-02-17 09:09 CSQ1  CSQ1CHIN           05:47:30 00:00:00       61        0
  2006-02-20 12:59 CSQ1  CSQ1CHIN           03:23:04 00:00:00       21        0
  2006-02-20 15:04 CSQ1  MQSIVP1  P390      01:17:06 00:00:00       20        0
****************************** Bottom of data ********************************
```

2 Press Enter. The 'Activate IBM Application Performance Analyzer Request' (see page 56) screen appears.

Activate IBM Application Performance Analyzer Request

When you select an item on a Watchlist or an Abend List with line command **A**, the Activate IBM Application Performance Analyzer Request screen appears. Several fields will be filled with values taken from the Watchlist.

To display the IBM Application Performance Analyzer Request screen (in this example from the DB2 Watchlist), perform these steps:

1. Select **Option 5** (**DB2**) on the Primary Option menu.
2. Specify the filter options for the 'DB2 Watchlist' (see page 39).
3. Press Enter.
4. Enter line command **A** for the required connection.
5. Press Enter.

To activate a IBM Application Performance Analyzer observation request:

- Job specific parameters are initialized using values from the Watchlist.
- Request specific parameters are initialized using default values as stored into the Application Performance Analyzer Automation Assistant option data set.

Please see 'Setting up the IBM Application Performance Analyzer Request Parameter' in the Application Performance Analyzer Automation Assistant Installation and Configuration Guide for more information.

All parameters are displayed on an ISPF panel as shown below.

```
AOZPACT1 ------- Activate IBM Application Performance Analyzer Request --------
Command ===>

    Options Dataset   : P390.AOZV1R2.OPTIONS
    Sysplex Name      : $GLOBAL
    Local Lpar Name   : SYS1

    AP Analyzer Defaults
    Job Name          : ENTRFABI
    Step Name         :
    Step Number       :            1-256
    Program Name      : USAOE10
    Target System     : SEC1       Lpar Name or *
    Job Active        : N          Y es, N o
    Duration          :      120   0-99999999 Seconds
    Samples           :    12000   0-99999999
    Delay Sampling    :        0   0-99999999 Seconds
    Run To Step End   : N          Y es, N o
    Expiration        :    0       0-9999 Days, 0 = Forever
    Notify User       : IBMUSER    SYSUID = Substitute TSO Userid
    Features          : DB2                CICS, DB2, DB2+, IMS, IMS+, MQS
    Additional Parms  :
    Description       : Application Performance Analyzer REQUEST
```

Parameters can be changed to desired values (see 'Job specific parameter' on page 57).

When the parameter values are acceptable, press Enter to pass the request to IBM Application Performance Analyzer. The IBM Application Performance Analyzer response is displayed and can be used to verify the success of the request.

General

The following general fields display:

Options Dataset

The name of the Application Performance Analyzer Automation Assistant VSAM option dataset used on this session.

Sysplex Name

Name of the Sysplex where the job was executing.

Local Lpar Name

Name of the Lpar where the TSO user is executing.

Job specific parameter

The following Job specific parameters display:

Job Name

Required. Name of the job to be observed by IBM Application Performance Analyzer.

Corresponds to IBM Application Performance Analyzer parameter 'JOBNAME'.

Step Name

Optional. Name of the job step to be observed by IBM Application Performance Analyzer. Only valid when JOB ACTIVE = NO.

Corresponds to IBM Application Performance Analyzer parameter 'STEP'.

Step Number

Optional. Job step number to be observed by IBM Application Performance Analyzer. Only valid when JOB ACTIVE = NO.

Corresponds to IBM Application Performance Analyzer parameter 'STEP'.

Program Name

Optional. Name of the program to be observed by IBM Application Performance Analyzer. Only valid when JOB ACTIVE = NO.

Corresponds to IBM Application Performance Analyzer parameter 'STEP'.

Target System

Optional. Specifies the target system on which the observation should be done. If omitted, it will be set to 'Local Lpar Name'. A value of '*' will schedule the request on any member in the sysplex.

Corresponds to IBM Application Performance Analyzer parameter 'SYSTEMS'. This parameter can only be used when AP Analyzer has been setup for sysplex mode. If AP Analyzer is running in local mode leave this field blank.

Request specific parameter

The following Request specific parameters display:

Job Active

Required. Specify Y if the job is active or N if the job is not active.

Corresponds to IBM Application Performance Analyzer parameter 'ACTIVE'.

Duration

Required. Specifies the duration of measurement in seconds.
A value from 0 to 99999999 is valid.

Corresponds to IBM Application Performance Analyzer parameter 'DURATION'.

Samples

Required. Number of samples to take during the measurement.
A value from 0 to 99999999 is valid.

Corresponds to IBM Application Performance Analyzer parameter 'SAMPLES'.

Delay Sampling

Required. Indicates the amount of seconds, that IBM Application Performance Analyzer should delay the start of the measurement after the target job step starts.
A value from 0 to 99999999 is valid.

Corresponds to IBM Application Performance Analyzer parameter 'DELAYSAMPLING'.

Run To Step End

Required. Specify Y to indicate that the measurement should continue to run until the job step has completed. Otherwise specify N.

Corresponds to IBM Application Performance Analyzer parameter 'RUNTOEOS'.

Expiration

Required. Specifies the number of days the measurement data should be retrieved. A value from 0 to 9999 is valid.

Corresponds to IBM Application Performance Analyzer parameter 'EXPDAYS'.

Notify User

Optional. Specifies a TSO userid to notify when the measurement ends.

Corresponds to IBM Application Performance Analyzer parameter 'NOTIFY'.

Features

Optional. Specifies which data extractors, if any, need to be turned on for this measurement. The data extractor values are: CICS, DB2, DB2+, IMS, IMS+ and MQS. A list of data extractors is separated by commas.

Corresponds to IBM Application Performance Analyzer parameter 'FEATURES'.

Additional Parms

Optional. If desired, additional IBM Application Performance Analyzer parameter can be specified here.

Specify additional parms according to the IBM Application Performance Analyzer manual.

Description

Optional. Describes the IBM Application Performance Analyzer request.

Corresponds to IBM Application Performance Analyzer parameter 'DESC'.

Please see 'Batch processing' on page 145 in the IBM Application Performance Analyzer User Guide for more information about all corresponding parameters.

CHAPTER 4

Miscellaneous

On this Menu, APA Automation Assistant provides detailed information about:

- Abended jobs
- Abnormal terminated CICS and IMS transactions
- Abnormal terminated DB2 and MQSeries connections
- Changed Programs
- Candidates to be managed by IMS Preload

Abended jobs, transactions and connections

These lists are called Abend Lists and gives you an overview of unsuccessfully jobs, transactions and connections. APA Automation Assistant provides for each supported subsystem an Abend List.

The Abend Lists will be filled with data, only if the according Build Abend List option is switched on during the Watchlist setup. The setup procedure is described in chapter 4.

Following Abend Lists are available:

- abended jobs, see ‘z/OS Abend List’ on page 64
- abnormal terminated CICS transactions, see ‘CICS Abend List’ on page 66
- abnormal terminated DB2 connections, see ‘DB2 Abend List’ on page 68
- abnormal terminated IMS transactions, see ‘IMS Abend List’ on page 70
- abnormal terminated MQSeries connections, see ‘MQSeries Abend List’ on page 72

Changed Programs

The overview of changed programs can be helpful on determining reasons for bad performance. For example, if a transaction is shown on the IMS Watchlist right after the related program was changed, probably the program change had caused bad performance.

Please keep in mind, that only programs will be listed, that are stored on load libraries you had defined on the Monitor Loadlibs setup dialogue. This dialogue is described in‘Setting up the Watchlist Loadlibs’ on page 132 in chapter 5.

Section ‘Changed Programs by Loadlib’ on page 74 describes how to select the list of changed programs.

Candidates to be managed by IMS Preload

Using this option, you can create an IMS Preload list to speed up the performance of your IMS online system(s). The most used programs can be determined and preloaded in the MPP region to minimize the program library I/O’s.

For generating an IMS Preload list please follow the instructions of section ‘IMS Preload Candidates’ on page 77.

Selecting the Miscellaneous menu

To display the abend lists, perform these steps:

1. Select **Option 8** (**Job Abends, Changed Modules, IMS Preload List**) on the Primary Option menu.
2. The Miscellaneous menu appears.

See:

- ‘z/OS Abend List’ on page 64
- ‘CICS Abend List’ on page 66
- ‘DB2 Abend List’ on page 68
- ‘IMS Abend List’ on page 70
- ‘MQSeries Abend List’ on page 72
- ‘Changed Programs by Loadlib’ on page 74
- ‘IMS Preload Candidates’ on page 77

for more information.

z/OS Abend List

To define an abended job listing, perform these steps:

1 Select **Option 1** (**z/OS**) on the Miscellaneous menu. The z/OS Abend List screen appears

```
AOZP7100 ---------------------- z/OS Abend List ----------- Row 1 to 14 of 143
COMMAND ===>                                                 SCROLL ===> PAGE

Sysplex Name : $GLOBAL              Start Date  :    /    /    YY/MM/DD
Lpar Name    :                      Start Time  :    :         HH:MM
Job Name     :                      Program Name:
Job Type     : ALL   JOB,STC,TSO
Line Commands: (S)elect (A)ctivate
  Date       Time  Lpar Job-Name T Pgm-Name  Elapsed CompCode CPU-Time   EXCP's
------------------------------------------------------------------------------
  2005-11-08 11:29 SYS9 DLF      D COFMISDO 00:00:17    0040  00:00:01      300
  2005-11-08 11:31 SYS1 ETCINIT  S BPXPRECP 00:00:09    0005  00:00:00      143
  2005-11-08 11:32 SYS9 APPC     A ATBINITM 50:20:01   S222   00:00:06      746
  2005-11-08 11:33 SYS9 ASCH     A ASBSCHIN 50:16:48   S222   00:00:30       96
  2005-11-08 11:33 SYS9 PORTMAP  S PORTMAP  50:18:14    5535  00:00:05      138
  2005-11-08 11:34 SYS9 HTTPD1   S IMWHTTPD 50:20:06   S222   00:07:57     1429
  2005-11-08 11:35 SYS1 FTPD1    S BPXPRFC  50:16:43    0012  00:00:07      676
  2005-11-08 11:35 SYS9 DSN1DIST S DSNYASCP 50:17:19   U5320  00:00:00        0
  2005-11-08 11:35 SYS9 DSN1DIST S DSNYASCP 50:17:19   U5320  00:00:00        0
  2005-11-08 17:00 SYS1 APMASMLK J ASMA90   00:00:15    0012  00:00:03      658
  2005-11-08 17:37 SYS1 APMASMLK J ASMA90   00:00:08    0012  00:00:03      624
  2005-11-08 17:55 SYS1 APMASMLK J ASMA90   00:00:07    0012  00:00:03      634
  2005-11-08 17:59 SYS1 APMASMLK J ASMA90   00:00:05    0008  00:00:03      628
  2005-11-08 18:33 SYS1 APMASMLK J ASMA90   00:00:06    0008  00:00:03      626
```

2 Specify your filter options and press Enter.

For more information on the filters, please see ‘z/OS Watchlist’ on page 28.

Abend List Details

For a detailed overview of an abended job, perform these steps:

1 Enter line command **S** next to the required abended job.

```
AOZP7100 ---------------------- z/OS Abend List ----------- Row 1 to 14 of 143
COMMAND ===>                                                 SCROLL ===> PAGE

Sysplex Name : $GLOBAL              Start Date  :    /    /    YY/MM/DD
Lpar Name    :                      Start Time  :    :         HH:MM
Job Name     :                      Program Name:
Job Type     : ALL   JOB,STC,TSO
Line Commands: (S)elect (A)ctivate
  Date       Time  Lpar Job-Name T Pgm-Name  Elapsed CompCode CPU-Time   EXCP's
------------------------------------------------------------------------------
  2005-11-08 11:29 SYS9 DLF      D COFMISDO 00:00:17    0040  00:00:01      300
  2005-11-08 11:31 SYS1 ETCINIT  S BPXPRECP 00:00:09    0005  00:00:00      143
  2005-11-08 11:32 SYS9 APPC     A ATBINITM 50:20:01   S222   00:00:06      746
  2005-11-08 11:33 SYS9 ASCH     A ASBSCHIN 50:16:48   S222   00:00:30       96
  2005-11-08 11:33 SYS9 PORTMAP  S PORTMAP  50:18:14    5535  00:00:05      138
  2005-11-08 11:34 SYS9 HTTPD1   S IMWHTTPD 50:20:06   S222   00:07:57     1429
  2005-11-08 11:35 SYS1 FTPD1    S BPXPRFC  50:16:43    0012  00:00:07      676
  2005-11-08 11:35 SYS9 DSN1DIST S DSNYASCP 50:17:19   U5320  00:00:00        0
  2005-11-08 11:35 SYS9 DSN1DIST S DSNYASCP 50:17:19   U5320  00:00:00        0
  2005-11-08 17:00 SYS1 APMASMLK J ASMA90   00:00:15    0012  00:00:03      658
  2005-11-08 17:37 SYS1 APMASMLK J ASMA90   00:00:08    0012  00:00:03      624
  2005-11-08 17:55 SYS1 APMASMLK J ASMA90   00:00:07    0012  00:00:03      634
  2005-11-08 17:59 SYS1 APMASMLK J ASMA90   00:00:05    0008  00:00:03      628
  2005-11-08 18:33 SYS1 APMASMLK J ASMA90   00:00:06    0008  00:00:03      626
```

2 Press Enter. The ’z/OS Abend List Details’ screen appears.

```
AOZP7110 ------------------ z/OS Abend List Details ---------------------------
COMMAND ===>                                                 SCROLL ===> PAGE

Sysplex Name : $GLOBAL    Program Name   : IMWHTTPD   Start Date  : 2005-11-08
Lpar Name    : SYS9       Step Name      : WEBSRV1          Time  : 11:34:54
Job Name     : HTTPD1     Proc Step Name : STARTING   Stop  Date  : 2005-11-10
Job Type     : STC        Step Number    : 1                Time  : 13:55:00
Job Number   : 00038      Cond/Abend Code: S222       Elapsed Time: 50:20:06
Job Class    :            Perf. Group    : 1
--------------------Resource Consumption----------------------------------------
CPU Time          :   00:07:57       CPU Time per Sec  :      0.002
EXCP's            :       1429       EXCP'S per Sec    :          0
Total Serv. Units :   10272366       Tot. Serv.Units/s :         56
CPU Service Units :    3789566       CPU Serv. Units/s :         20
IO Service Units  :       7110       IO Serv. Units/s  :          0
Memory Serv. Units:    6373201       Storage < 16 MB   :        596
SRB Service Units :     102489       Storage > 16 MB   :      63668
-------------------IO Activity per DD-Name-------------------------------------
DD-Name     EXCP's    Blocksize      DD-Name      EXCP's    Blocksize
SYSOOOO7         6           56      SYSOOOO9          4           56
SYSOOOO5         3          256      SYSOOOO3          2         6233
CEEDUMP          0            0      STDERR            0            0
STDOUT           0            0      SYSERR            0            0
SYSIN            0            0      SYSOUT            0            0
```

For a detailed description of the fields on this panel, see 'z/OS Watchlist' on page 28

Activating IBM Application Performance Analyzer

To activate IBM Application Performance Analyzer, perform these steps:

1 On the z/OS Abend List, enter line command **A** for the job.

```
AOZP7100 ---------------------- z/OS Abend List ----------- Row 1 to 14 of 143
COMMAND ===>                                                 SCROLL ===> PAGE

Sysplex Name : $GLOBAL              Start Date  :    /    /    YY/MM/DD
Lpar Name    :                      Start Time  :    :         HH:MM
Job Name     :                      Program Name:
Job Type     : ALL   JOB,STC,TSO
Line Commands: (S)elect (A)ctivate
  Date       Time  Lpar Job-Name T Pgm-Name  Elapsed CompCode CPU-Time   EXCP's
-------------------------------------------------------------------------------
  2005-11-08 11:29 SYS9 DLF      D COFMISDO 00:00:17    0040  00:00:01      300
  2005-11-08 11:31 SYS1 ETCINIT  S BPXPRECP 00:00:09    0005  00:00:00      143
  2005-11-08 11:32 SYS9 APPC     A ATBINITM 50:20:01   S222   00:00:06      746
  2005-11-08 11:33 SYS9 ASCH     A ASBSCHIN 50:16:48   S222   00:00:30       96
  2005-11-08 11:33 SYS9 PORTMAP  S PORTMAP  50:18:14    5535  00:00:05      138
  2005-11-08 11:34 SYS9 HTTPD1   S IMWHTTPD 50:20:06   S222   00:07:57     1429
  2005-11-08 11:35 SYS1 FTPD1    S BPXPRFC  50:16:43    0012  00:00:07      676
  2005-11-08 11:35 SYS9 DSN1DIST S DSNYASCP 50:17:19   U5320  00:00:00        0
  2005-11-08 11:35 SYS9 DSN1DIST S DSNYASCP 50:17:19   U5320  00:00:00        0
a 2005-11-08 17:00 SYS1 APMASMLK J ASMA90   00:00:15    0012  00:00:03      658
  2005-11-08 17:37 SYS1 APMASMLK J ASMA90   00:00:08    0012  00:00:03      624
  2005-11-08 17:55 SYS1 APMASMLK J ASMA90   00:00:07    0012  00:00:03      634
  2005-11-08 17:59 SYS1 APMASMLK J ASMA90   00:00:05    0008  00:00:03      628
  2005-11-08 18:33 SYS1 APMASMLK J ASMA90   00:00:06    0008  00:00:03      626
```

2 Press Enter. The 'Activate IBM Application Performance Analyzer Request' (see page 56) screen appears.

CICS Abend List

To define an abended CICS transaction listing, perform these steps:

1 Select **Option 2** (**CICS**) on the Miscellaneous menu. The CICS Abend List screen appears

```
AOZP750O ---------------------- CICS Abend List ------------ Row 1 to 14 of 32
COMMAND ===>                                                  SCROLL ===> PAGE

CICS PlexName: $GLOBAL              Start Date  :    /    /    YY/MM/DD
CICS Appl-ID :                      Start Time  :    :         HH:MM
Job Name     :
Program Name :                      TRX Name    :
Line Commands: (S)elect (A)ctivate
  Date       Time  Appl-ID  Job-Name PGM-Name TRX  T CompCode CPU-Time File-Req
------------------------------------------------------------------------------
  2005-12-16 14:22 CICS     CICSA    DFHZATA  CATA T   ATCJ   00:00:00        0
  2005-12-17 23:04 CICS     CICSA    DFHZATA  CATA T   ATCJ   00:00:00        0
  2006-01-12 10:10 CICS     CICSA    DFHAPATT CSSY T   AKCO   00:00:00        0
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   AEIL   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   AEIV   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   AEIO   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   AEI1   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   AEYH   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   AEIO   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   4038   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   ASRA   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   ASRA   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   ASRA   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   ASRA   00:00:00       13
```

2 Specify your filter options and press Enter.

For more information on the filters, please see 'CICS Watchlist' on page 33

Abend List Details

For a detailed overview of an abended CICS transaction, perform these steps:

1 Enter line command **S** next to the required connection.

```
AOZP750O ---------------------- CICS Abend List ------------ Row 1 to 14 of 32
COMMAND ===>                                                  SCROLL ===> PAGE

CICS PlexName: $GLOBAL              Start Date  :    /    /    YY/MM/DD
CICS Appl-ID :                      Start Time  :    :         HH:MM
Job Name     :
Program Name :                      TRX Name    :
Line Commands: (S)elect (A)ctivate
  Date       Time  Appl-ID  Job-Name PGM-Name TRX  T CompCode CPU-Time File-Req
------------------------------------------------------------------------------
  2005-12-16 14:22 CICS     CICSA    DFHZATA  CATA T   ATCJ   00:00:00        0
  2005-12-17 23:04 CICS     CICSA    DFHZATA  CATA T   ATCJ   00:00:00        0
  2006-01-12 10:10 CICS     CICSA    DFHAPATT CSSY T   AKCO   00:00:00        0
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   AEIL   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   AEIV   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   AEIO   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   AEI1   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   AEYH   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   AEIO   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   4038   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   ASRA   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   ASRA   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   ASRA   00:00:00       13
  2006-01-16 13:05 S09TS22B AXNCICS  IVPCICSC IVPC S   ASRA   00:00:00       13
```

2 Press Enter. The 'CICS Abend List Details' screen appears.

```
AOZP7510 ------------------ CICS Abend List Details ---------------------------
COMMAND ===>                                                 SCROLL ===> PAGE

CICS Plex Name: $GLOBAL    Start Date    : 2006-01-16 Program Name : IVPCICSC
CICS Appl-ID  : SO9TS22B          Time    : 13:05:08   Transact Name: IVPC
Job Name      : AXNCICS    End   Date    : 2006-01-16 Transact Type: SD
Lpar Name     : ZOSA             Time    : 13:05:09   Transact Prio: 1
CICS Version  : 6.2                                   Abend Code   : AEIV
-------------------------------------------------------------------------------
File Req.Total:         13 Interval Req. :          5 Elap.Time Tot: 00:00:01
File Req./TRX :         13 FEPI Requests :          0 Elap.Time Avg:     0.78
File Gets     :          5 Activity Req. :          0 Resp.Time Tot: 00:00:00
File Puts     :          1 Container Req.:          0 Resp.Time Avg:     0.78
File Browses  :          2 Event Requests:          0 Int.Resp Time: 00:00:00
File Adds     :          1 WEB Requests  :          0 Task DispTime: 00:00:00
File Deletes  :          2 Document Req. :          0 Task CPU Tot.: 00:00:00
File Others   :          2 Socket Req.   :          0 Task CPU Avg.:     0.02
TD Requests   :          5 IMS Requests  :          0 Task SuspTime: 00:00:00
TS Requests   :          7 DB2 Requests  :          0 Dispatch Wait: 00:00:00
BMS Requests  :          0 Program Links :          4 ExceptionWait: 00:00:00
Journal Req.  :          0 Program Loads :          5 IMS Wait Time: 00:00:00
Logger Writes :          0                            DB2 Wait Time: 00:00:00
```

For a detailed description of the fields on this panel, see 'CICS Watchlist' on page 33

Activating IBM Application Performance Analyzer

To activate IBM Application Performance Analyzer, perform these steps:

1 On the CICS Abend List, enter line command **A** for the desired transaction.

```
AOZP7500 ---------------------- CICS Abend List ------------ Row 1 to 14 of 32
COMMAND ===>                                                 SCROLL ===> PAGE

CICS PlexName: $GLOBAL              Start Date  :    /    /    YY/MM/DD
CICS Appl-ID :                      Start Time  :    :         HH:MM
Job Name     :
Program Name :                      TRX Name    :
Line Commands: (S)elect (A)ctivate
  Date       Time  Appl-ID  Job-Name PGM-Name TRX  T CompCode CPU-Time File-Req
-------------------------------------------------------------------------------
  2005-12-16 14:22 CICS     CICSA    DFHZATA  CATA T   ATCJ   00:00:00        0
  2005-12-17 23:04 CICS     CICSA    DFHZATA  CATA T   ATCJ   00:00:00        0
  2006-01-12 10:10 CICS     CICSA    DFHAPATT CSSY T   AKCO   00:00:00        0
a 2006-01-16 13:05 SO9TS22B AXNCICS  IVPCICSC IVPC S   AEIL   00:00:00       13
  2006-01-16 13:05 SO9TS22B AXNCICS  IVPCICSC IVPC S   AEIV   00:00:00       13
  2006-01-16 13:05 SO9TS22B AXNCICS  IVPCICSC IVPC S   AEIO   00:00:00       13
  2006-01-16 13:05 SO9TS22B AXNCICS  IVPCICSC IVPC S   AEI1   00:00:00       13
  2006-01-16 13:05 SO9TS22B AXNCICS  IVPCICSC IVPC S   AEYH   00:00:00       13
  2006-01-16 13:05 SO9TS22B AXNCICS  IVPCICSC IVPC S   AEIO   00:00:00       13
  2006-01-16 13:05 SO9TS22B AXNCICS  IVPCICSC IVPC S   4038   00:00:00       13
  2006-01-16 13:05 SO9TS22B AXNCICS  IVPCICSC IVPC S   ASRA   00:00:00       13
  2006-01-16 13:05 SO9TS22B AXNCICS  IVPCICSC IVPC S   ASRA   00:00:00       13
  2006-01-16 13:05 SO9TS22B AXNCICS  IVPCICSC IVPC S   ASRA   00:00:00       13
  2006-01-16 13:05 SO9TS22B AXNCICS  IVPCICSC IVPC S   ASRA   00:00:00       13
```

Press Enter. The 'Activate IBM Application Performance Analyzer Request' (see page 56) screen appears.

DB2 Abend List

To define an abended DB2 connection listing, perform these steps:

1 Select **Option 3** (**DB2**) on the Miscellaneous menu. The DB2 Abend List screen appears

```
AOZP7200 ---------------------- DB2 Abend List ------------ Row 1 to 10 of 10
COMMAND ===>                                                 SCROLL ===> PAGE

DB2 Plex Name: $GLOBAL              Start Date  :    /    /    YY/MM/DD
DB2 Subsys ID:                      Start Time  :    :         HH:MM
Job Name     :                      Plan Name   :
Connect Type : ALL                  Program Name:
Line Commands: (S)elect (A)ctivate
  Date       Time  DB2  Job-Name Reason  PlanName  Elapsed T CPU-Time SQL-Calls
------------------------------------------------------------------------------
  2006-04-03 07:11 DB2T X9E9235    14    PFA460   00:00:03 D 00:00:00       271
  2006-04-03 07:46 DB2T X9E812B    14    PFA460   00:00:00 D 00:00:00       100
  2006-04-03 07:58 DB2T X9E9256    14    PFA460   00:00:01 D 00:00:00        87
  2006-04-03 08:03 DB2T X9F2081A   14    B580A2A1 00:00:01 D 00:00:00      1316
  2006-04-03 08:10 DB2T X9F2081A   14    DFLTA2A1 00:00:00 D 00:00:00         1
  2006-04-03 08:28 DB2T X9E9221X   14    CEHARNPL 00:00:00 D 00:00:00       141
  2006-04-03 08:57 DB2T X9E9232    14    PFA460   00:03:03 D 00:00:00        20
  2006-04-03 10:01 DB2P P5011AA1   14    P011P007 00:00:00 B 00:00:00        19
  2006-04-03 10:25 DB2T X9E9221X   14    CEHARNPL 00:00:00 D 00:00:00       141
  2006-04-03 10:35 DB2T X9E9221X   14    CEHARNPL 00:00:00 D 00:00:00       141
****************************** Bottom of data ********************************
```

2 Specify your filter options and press Enter.

For more information on the filters, please see 'DB2 Watchlist' on page 39

Abend List Details

For a detailed overview of an abended DB2 connection, perform these steps:

1 Enter line command **S** next to the required connection.

```
AOZP7200 ---------------------- DB2 Abend List ------------ Row 1 to 10 of 10
COMMAND ===>                                                 SCROLL ===> PAGE

DB2 Plex Name: $GLOBAL              Start Date  :    /    /    YY/MM/DD
DB2 Subsys ID:                      Start Time  :    :         HH:MM
Job Name     :                      Plan Name   :
Connect Type : ALL                  Program Name:
Line Commands: (S)elect (A)ctivate
  Date       Time  DB2  Job-Name Reason  PlanName  Elapsed T CPU-Time SQL-Calls
------------------------------------------------------------------------------
  2006-04-03 07:11 DB2T X9E9235    14    PFA460   00:00:03 D 00:00:00       271
  2006-04-03 07:46 DB2T X9E812B    14    PFA460   00:00:00 D 00:00:00       100
  2006-04-03 07:58 DB2T X9E9256    14    PFA460   00:00:01 D 00:00:00        87
  2006-04-03 08:03 DB2T X9F2081A   14    B580A2A1 00:00:01 D 00:00:00      1316
  2006-04-03 08:10 DB2T X9F2081A   14    DFLTA2A1 00:00:00 D 00:00:00         1
  2006-04-03 08:28 DB2T X9E9221X   14    CEHARNPL 00:00:00 D 00:00:00       141
  2006-04-03 08:57 DB2T X9E9232    14    PFA460   00:03:03 D 00:00:00        20
  2006-04-03 10:01 DB2P P5011AA1   14    P011P007 00:00:00 B 00:00:00        19
  2006-04-03 10:25 DB2T X9E9221X   14    CEHARNPL 00:00:00 D 00:00:00       141
  2006-04-03 10:35 DB2T X9E9221X   14    CEHARNPL 00:00:00 D 00:00:00       141
****************************** Bottom of data ********************************
```

2 Press Enter. The 'DB2 Abend List Details' screen appears.

```
AOZP7210 ------------------- DB2 Abend List Details ---------------------------
COMMAND ===>                                                SCROLL ===> PAGE

DB2 Plex Name: $GLOBAL      Start Date  : 2006-04-03  DB2 CPU Time :   00:00:00
DB2 Subsys ID: DB2T  V7.1          Time  : 08:03:45    DB2 Elapsed  :   00:00:01
Lpar Name    : SEC1         Stop  Date  : 2006-04-03  DB2 IO Wait  :      0.075
Job Name     : X9F2081A           Time  : 08:03:53    DB2 Lock Wait:      0.000
Plan Name    : B580A2A1     Program Name: DBCKPT      Acct. Reason :         14
Auth. ID     : X9F2081      Connect Type: DB2CALL     Loc. Location: FAKTDB2D
                                                                   More:     +
----------------------------SQL Calls-------------------------------------------
Total        :       1316   Fetch       :        593  Prepare      :          0
Close        :          5   Insert      :        177  Select       :          5
Delete       :          0   Open        :          5  Update       :        531
---------------------------DB2 Activity-----------------------------------------
Get Pages    :       1807   Sync Reads  :         18  SQL Calls/sec:       1316
Get Pages/sec:       1807   Sync Reads/s:         18  CPU Time/SQL :      0.000
WaitTime/Page:      0.000   Pages/SyncRd:        100  Wait Time/SQL:      0.000
Sync Writes  :          1
-------------------------Remote Activity--------------------------------------
Remote Location:
SQL Sent     :          0   SQL Received    :          0
Rows Sent    :          0   Rows Retrieved  :          0
Bytes Sent   :          0   Bytes Received  :          0
Commit Sent  :          0   Commit Received :          0
Abort Req. Sent:        0   Abort Req. Recvd:          0 _
```

For a detailed description of the fields on this panel, see 'DB2 Watchlist' on page 39

Activating IBM Application Performance Analyzer

To activate IBM Application Performance Analyzer, perform these steps:

1 On the BD2 Abend List, enter line command **A** for the desired connection.

```
AOZP7200 ---------------------- DB2 Abend List ------------ Row 1 to 10 of 10
COMMAND ===>                                                SCROLL ===> PAGE

DB2 Plex Name: $GLOBAL              Start Date  :    /    /    YY/MM/DD
DB2 Subsys ID:                      Start Time  :    :         HH:MM
Job Name     :                      Plan Name   :
Connect Type : ALL                  Program Name:
Line Commands: (S)elect (A)ctivate
  Date       Time  DB2  Job-Name Reason  PlanName  Elapsed T CPU-Time SQL-Calls
-------------------------------------------------------------------------------
a 2006-04-03 07:11 DB2T X9E9235    14    PFA460   00:00:03 D 00:00:00       271
  2006-04-03 07:46 DB2T X9E812B    14    PFA460   00:00:00 D 00:00:00       100
  2006-04-03 07:58 DB2T X9E9256    14    PFA460   00:00:01 D 00:00:00        87
  2006-04-03 08:03 DB2T X9F2081A   14    B580A2A1 00:00:01 D 00:00:00      1316
  2006-04-03 08:10 DB2T X9F2081A   14    DFLTA2A1 00:00:00 D 00:00:00         1
  2006-04-03 08:28 DB2T X9E9221X   14    CEHARNPL 00:00:00 D 00:00:00       141
  2006-04-03 08:57 DB2T X9E9232    14    PFA460   00:03:03 D 00:00:00        20
  2006-04-03 10:01 DB2P P5011AA1   14    P011P007 00:00:00 B 00:00:00        19
  2006-04-03 10:25 DB2T X9E9221X   14    CEHARNPL 00:00:00 D 00:00:00       141
  2006-04-03 10:35 DB2T X9E9221X   14    CEHARNPL 00:00:00 D 00:00:00       141
****************************** Bottom of data ********************************
```

2 Press Enter. The 'Activate IBM Application Performance Analyzer Request' (see page 56) screen appears.

IMS Abend List

To define an abended IMS transaction listing, perform these steps:

1 Select **Option 4** (**IMS**) on the Miscellaneous menu. The IMS Abend List screen appears

```
AOZP730O ---------------------- IMS Abend List -------------- Row 1 to 1 of 1
COMMAND ===>                                                  SCROLL ===> PAGE

IMS Plex Name: $GLOBAL              Start Date  :    /    /    YY/MM/DD
IMS ID       :                      Start Time  :    :         HH:MM
Job Name     :                      PSB Name    :
Program Type : ALL  ALL,MPP,BMP     TRX Name    :
Line Commands: (S)elect (A)ctivate
  Date       Time  IMS  Job-Name TRX-Name PSB-Name CompCode T CPU-Time DB-Calls
------------------------------------------------------------------------------
  2006-04-25 12:24 IMSP IMSPRGO3 PN14     DCPN14N1  U0777   M 00:00:00        3
******************************* Bottom of data ********************************
```

2 Specify your filter options and press Enter.

For more information on the filters, please see 'IMS Watchlist' on page 45

Abend List Details

For a detailed overview of an abended IMS transaction, perform these steps:

1 Enter line command **S** next to the required transaction.

```
AOZP730O ---------------------- IMS Abend List -------------- Row 1 to 1 of 1
COMMAND ===>                                                  SCROLL ===> PAGE

IMS Plex Name: $GLOBAL              Start Date  :    /    /    YY/MM/DD
IMS ID       :                      Start Time  :    :         HH:MM
Job Name     :                      PSB Name    :
Program Type : ALL  ALL,MPP,BMP     TRX Name    :
Line Commands: (S)elect (A)ctivate
  Date       Time  IMS  Job-Name TRX-Name PSB-Name CompCode T CPU-Time DB-Calls
------------------------------------------------------------------------------
s 2006-04-25 12:24 IMSP IMSPRGO3 PN14     DCPN14N1  U0777   M 00:00:00        3
******************************* Bottom of data ********************************
```

2 Press Enter. The 'IMS Abend List Details' screen appears.

```
AOZP731O ------------------- IMS Abend List Details -------------------------
COMMAND ===>                                                  SCROLL ===> PAG

IMS Plex Name : $GLOBAL    Interval
IMS ID        : IMSP       Start Date   : 2006-04-25   TRX Name    : PN14
Job Name      : IMSPRGO3          Time   : 12:24:27     TRX Executed: 1
Step Name     : REGION     End   Date   : 2006-04-25   Comp. Code  : U0777
PSB Name      : DCPN14N1          Time   : 12:25:31     CPU Time    : 00:00:00
Program Name  : DCPN14N1   Elapsed Time : 00:00:00     DB Calls/TRX: 0
Program Type  : MPP
-----------IMS DB Calls-----------------------IMS DC Calls------------------
         Total:          3         Total:          1
         GU   :          2         GU   :          1   APSB :          0
         GN   :          1         GN   :          0   DPSB :          0
         GNP  :          0         ISRT :          0   LOG  :          0
         GHU  :          0         PURG :          0   CHNG :          0
         GHN  :          0         CMD  :          0   GCMD :          0
         GHNP :          0         ICMD :          0   RCMD :          0
         ISRT :          0         CHKP :          0   XRST :          0
         DLET :          0         SETS :          0   SETU :          0
         REPL :          0         ROLB :          0   ROLS :          0
```

For a detailed description of the fields on this panel, see 'IMS Watchlist' on page 45

Activating IBM Application Performance Analyzer

To activate IBM Application Performance Analyzer, perform these steps:

1 On the IMS Abend List, enter line command **A** for the desired transaction.

```
AOZP73OO ---------------------- IMS Abend List -------------- Row 1 to 1 of 1
COMMAND ===>                                                  SCROLL ===> PAGE

IMS Plex Name: $GLOBAL              Start Date  :    /    /    YY/MM/DD
IMS ID       :                      Start Time  :    :         HH:MM
Job Name     :                      PSB Name    :
Program Type : ALL  ALL,MPP,BMP     TRX Name    :
Line Commands: (S)elect (A)ctivate
  Date       Time  IMS  Job-Name TRX-Name PSB-Name CompCode T CPU-Time DB-Calls
------------------------------------------------------------------------------
  2006-04-25 12:24 IMSP IMSPRG03 PN14     DCPN14N1  U0777   M 00:00:00        3
****************************** Bottom of data ********************************
```

2 Press Enter. The 'Activate IBM Application Performance Analyzer Request' (see page 56) screen appears.

MQSeries Abend List

To define a list of abnormal terminated MQSeries connection, perform these steps:

1 Select **Option 5** (**MQSeries**) on the Miscellaneous menu. The MQSeries Abend List screen appears

```
AOZP770O ---------------------- MQSeries Abendlist ------------ Row 1 to 3 of 3
COMMAND ===>                                                  SCROLL ===> PAGE

MQS PlexName : $GLOBAL              Start Date  :    /    /    YY/MM/DD
MQS Subsys-ID:                      Start Time  :    :         HH:MM
Job Name     :
Auth-ID      :
Line Commands: (S)elect (A)ctivate
  Date       Time  SSID  Job-Name Auth-ID  Reason   Elapsed  CPU-Time MQS-Reqs
--------------------------------------------------------------------------------
  2006-02-20 16:11 CSQ1  MQSIVP1  P390       20     00:00:48 00:00:00         1
  2006-02-20 16:12 CSQ1  MQSIVP1  P390       20     00:00:39 00:00:00         1
  2006-02-20 16:13 CSQ1  MQSIVP1  P390       20     00:00:09 00:00:00         1
******************************* Bottom of data ********************************
```

2 Specify your filter options and press Enter.

For more information on the filters, please see ‘MQSeries Watchlist’ on page 51

Abend List Details

For a detailed overview of an abnormal terminated MQSeries connection, perform these steps:

1 Enter line command **S** next to the required connection.

```
AOZP770O ---------------------- MQSeries Abendlist ------------ Row 1 to 3 of 3
COMMAND ===>                                                  SCROLL ===> PAGE

MQS PlexName : $GLOBAL              Start Date  :    /    /    YY/MM/DD
MQS Subsys-ID:                      Start Time  :    :         HH:MM
Job Name     :
Auth-ID      :
Line Commands: (S)elect (A)ctivate
  Date       Time  SSID  Job-Name Auth-ID  Reason   Elapsed  CPU-Time MQS-Reqs
--------------------------------------------------------------------------------
  2006-02-20 16:11 CSQ1  MQSIVP1  P390       20     00:00:48 00:00:00         1
  2006-02-20 16:12 CSQ1  MQSIVP1  P390       20     00:00:39 00:00:00         1
  2006-02-20 16:13 CSQ1  MQSIVP1  P390       20     00:00:09 00:00:00         1
******************************* Bottom of data ********************************
```

2 Press Enter. The ’MQSeries Abend List Details’ screen appears.

```
AOZP7710 ----------------- MQSeries Abendlist Details -------------------------
COMMAND ===>                                                  SCROLL ===> PAGE

MQS Plex Name : $GLOBAL             Start Date    : 2006-02-20
MQS Subsys-ID : CSQ1                      Time    : 16:11:16
Job Name      : MQSIVP1             End   Date    : 2006-02-20
Lpar Name     : SYS1                      Time    : 16:12:04
Auth-ID       : P390                Elapsed Time  : 00:00:48
Network Ident.:                     MQS Version   : 7.1
Reason Code   : 20
--------------------------------------------------------------------------------
Total CPU Time       :   00:00:00  Total Get/Put Request:          1
      TCB Time       :   00:00:00  Avg. Get/Put Requests:          0
      SRB Time       :   00:00:00  CPU Time for Puts    :   00:00:00
Subsys. Elapsed Time :   00:00:00  Nbr. Puts <   100    :          1
      TCB Time       :   00:00:00  Nbr. Puts <  1000    :          0
      SRB Time       :   00:00:00  Nbr. Puts < 10000    :          0
Nbr.Entry/Exit Events:          0  Nbr. Puts > 10000    :          0
Nbr.Wait Trace Events:          0  Nbr. Gets <   100    :          0
Nbr. WAITS LOCK/LATCH:          0  Nbr. Gets <  1000    :          0
Nbr. Waits Read      :          0  Nbr. Gets < 10000    :          0
Nbr. Waits Write     :          0  Nbr. Gets > 10000    :          0
Nbr. Waits Sync.Proc.:          0  Nbr. Phase 2 Commits :          1
                                   Nbr. Backouts        :          0
```

For a detailed description of the fields on this panel, see 'MQSeries Watchlist' on page 51. Press PF1 to get a detailed explanation of the reason code.

Activating IBM Application Performance Analyzer

To activate IBM Application Performance Analyzer, perform these steps:

1. On the MQSeries Abend List, enter line command **A** for the desired connection.

```
AOZP7700 --------------------- MQSeries Abendlist ------------ Row 1 to 3 of 3
COMMAND ===>                                                  SCROLL ===> PAGE

MQS PlexName : $GLOBAL              Start Date  :    /    /    YY/MM/DD
MQS Subsys-ID:                      Start Time  :    :         HH:MM
Job Name     :
Auth-ID      :
Line Commands: (S)elect (A)ctivate
  Date       Time  SSID  Job-Name Auth-ID  Reason   Elapsed  CPU-Time MQS-Reqs
--------------------------------------------------------------------------------
  2006-02-20 16:11 CSQ1  MQSIVP1  P390       20     00:00:48 00:00:00         1
  2006-02-20 16:12 CSQ1  MQSIVP1  P390       20     00:00:39 00:00:00         1
  2006-02-20 16:13 CSQ1  MQSIVP1  P390       20     00:00:09 00:00:00         1
****************************** Bottom of data ********************************
```

2. Press Enter. The 'Activate IBM Application Performance Analyzer Request' (see page 56) screen appears.

Changed Programs by Loadlib

List Changed Programs

To get the list of changed programs, perform these steps:

1. Select **Option 6** (**by Loadlib**) on the Miscellaneous menu.
2. The Changed Programs screen displays.

```
AOZP7400 ---------------------- Changed Programs ---------- Row 1 to 15 of 101
COMMAND ===>                                                 SCROLL ===> PAGE

Sysplex Name : $GLOBAL             Start Date  :    /    /    YY/MM/DD
Program Name :                     Start Time  :    :         HH:MM
Loadlib DSN  :
Line Commands: (S)elect (A)ctivate
  Date       Time  Pgm-Name  Size   Loadlib
------------------------------------------------------------------------------
  2006-06-28 18:51 AOZE1000 002100  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE2000 005890  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE3000 0058D0  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE4000 005580  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE5000 0064E0  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6A10 0088E0  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6A20 008948  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6000 0011D0  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6100 005370  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6200 005800  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6310 0091B0  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6320 009578  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6410 009918  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6420 009A18  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6510 008DF0  P390.AOZV1R2.LOADLIB
```

Filter Options

The following fields can be used as filter options:

Sysplex Name

Required field. Fully qualified name of the desired Sysplex.

Program Name

Optional field. Fully qualified program name or mask (e.g. PGMX*).

Start Date and Start Time

Optional field. Oldest Date/Time of discovery.

The date format is YY/MM/DD
The time format is HH:MM

Loadlib DSN

Optional field. Fully qualified data set name where the programs are stored or mask (e.g. SYS1.L*).

Please note: A filter option will be ignored, if you leave it blank.

Details of Changed Programs

For getting detailed informations about changed programs perform these steps:

1 Enter line command **S** next to the required program.

```
AOZP740O ---------------------- Changed Programs ---------- Row 1 to 15 of 101
COMMAND ===>                                                SCROLL ===> PAGE

Sysplex Name : $GLOBAL              Start Date  :    /    /    YY/MM/DD
Program Name :                      Start Time  :    :         HH:MM
Loadlib DSN  :
Line Commands: (S)elect (A)ctivate
  Date       Time  Pgm-Name  Size   Loadlib
--------------------------------------------------------------------------------
  2006-06-28 18:51 AOZE1000 0021O0  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE2000 005890  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE3000 0058D0  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE4000 00558O  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE5000 0064E0  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6A10 0088E0  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6A20 008948  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6000 0011D0  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6100 005370  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6200 005800  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6310 0091B0  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6320 009578  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6410 009918  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6420 009A18  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6510 008DF0  P390.AOZV1R2.LOADLIB
```

2 Press Enter. The 'Changed Program Details' screen appears.

```
AOZP7410 ------------------ Changed Program Details -------------------------
COMMAND ===>                                                SCROLL ===> PAGE

Sysplex Name : $GLOBAL              Discover Date : 2006-06-28    YYYY.MM.DD
Program Name : AOZRLOGO                     Time : 18:51:00      HH:MM:SS
Loadlib DSN  : P390.AOZV1R2.LOADLIB
--------------------------------------------------------------------------------
Linkage Date     : 2006-06-28       Module Size   : 005B00
        Time     : 18:08:40         Alias Name of :

Link Attributes
   Re-entrant    : No
   Re-useable    : No
   Re-freshable  : No
   Entry point 0 : Yes
   Authorized    : No
   Adressing Mode: 31
   Residency Mode: 24
                                                                              _
```

Changed Program Data

The following Changed Program Data fields display:

Sysplex Name

Name of the Sysplex where the program was discovered.

Lpar Name

Name of the Lpar where the program was discovered.

Loadlib DSN

Name of the loadlib where the program resides.

Discover Date and Time

Date and time, when the program was discovered by Application Performance Analyzer Automation Assistant in this loadlib (YYYY-MM-DD, HH:MM:SS)

Linkage Date and Time

Date and time, when the program was linked (YYYY-MM-DD, HH:MM:SS)

Module Size

The size of the program module as hex decimal value.

Alias Name

If the module is defined as an alias of an other module, the name of the associated module will be displayed here.

Link Attributes

The link attributes of the program module.

Activating IBM Application Performance Analyzer

To activate IBM Application Performance Analyzer, perform these steps:

1. On the Changed Programs list, enter line command **A** for the program.

```
AOZP740O ---------------------- Changed Programs ---------- Row 1 to 15 of 101
COMMAND ===>                                                SCROLL ===> PAGE

Sysplex Name : $GLOBAL              Start Date  :    /    /    YY/MM/DD
Program Name :                      Start Time  :    :         HH:MM
Loadlib DSN  :
Line Commands: (S)elect (A)ctivate
  Date       Time  Pgm-Name  Size   Loadlib
--------------------------------------------------------------------------------
  2006-06-28 18:51 AOZE1000 002100  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE2000 005890  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE3000 0058D0  P390.AOZV1R2.LOADLIB
a 2006-06-28 18:51 AOZE4000 005580  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE5000 0064E0  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6A10 0088E0  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6A20 008948  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6000 0011D0  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6100 005370  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6200 005800  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6310 0091B0  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6320 009578  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6410 009918  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6420 009A18  P390.AOZV1R2.LOADLIB
  2006-06-28 18:51 AOZE6510 008DF0  P390.AOZV1R2.LOADLIB
```

2. Press Enter. The 'Activate IBM Application Performance Analyzer Request' (see page 56) screen appears.

IMS Preload Candidates

List Candidates

To get the list of candidates to be managed by the IMS Preload feature, perform these steps:

1. Select **Option 7** (**Generate List**) on the Miscellaneous menu. A list of all IMS dependant regions will show up.
2. The IMS Preload List screen displays.

```
AOZP7600 ---------------------- IMS Preload List ----------- Row 1 to 12 of 12
COMMAND ===>                                                  SCROLL ===> PAGE

IMS Plex Name: $GLOBAL              Start Date  :    /    /    YY/MM/DD
IMS ID       :                      Start Time  :    :         HH:MM
Job Name     :
Total Loads  :          0-99999999  all pgm loads of a MPP region
Line Commands: (S)elect (A)ctivate
  IMSID  Job-Name  Tot-Loads  Tot-TRX
------------------------------------------------------------------------------
  IMSP   IMSPRG02       219       760
  IMSP   IMSPRG03       256       675
  IMSP   IMSPRG04       210      1046
  IMSP   IMSPRG06       216       568
  IMSP   IMSPRG12         1         4
  IMSP   IMSPRG16         2         7
  IMSP   IMSPRG17         2        16
  IMSP   IMSPRG18         1         1
  IMST   IMSTRG02        24        62
  IMST   IMSTRG03        28        59
  IMST   IMSTRG04        20        51
  IMST   IMSTRG06        16        43
****************************** Bottom of data ********************************
```

Filter Options

The following fields can be used as filter options:

IMS Plex Name

Required field. Fully qualified name of the desired IMS Plex.

IMS ID

Optional field. Fully qualified IMS subsystem ID or mask (e.g. IMS*).

Start Date and Start Time

Optional field. Oldest Date/Time of the oldest list entry.

The date format is YY/MM/DD
The time format is HH:MM

Job Name

Optional field. Fully qualified job name or mask (e.g. JOBX*).

Total Loads

Optional field. Limits the list to MPP regions where the count of program loads is equal or higher than the specified value.

Note A filter option will be ignored, if you leave it blank.

List Details of Candidates

For getting detailed informations about candidates, perform these steps:

1 Enter line command **S** next to the desired candidate.

```
AOZP760O ---------------------- IMS Preload List ----------- Row 1 to 12 of 12
COMMAND ===>                                                  SCROLL ===> PAGE

IMS Plex Name: $GLOBAL              Start Date  :    /    /    YY/MM/DD
IMS ID       :                      Start Time  :    :         HH:MM
Job Name     :
Total Loads  :          0-99999999  all pgm loads of a MPP region
Line Commands: (S)elect (A)ctivate
  IMSID  Job-Name  Tot-Loads  Tot-TRX
--------------------------------------------------------------------------------
  IMSP   IMSPRGO2       219       760
  IMSP   IMSPRGO3       256       675
  IMSP   IMSPRG04       210      1046
  IMSP   IMSPRG06       216       568
  IMSP   IMSPRG12         1         4
  IMSP   IMSPRG16         2         7
  IMSP   IMSPRG17         2        16
  IMSP   IMSPRG18         1         1
  IMST   IMSTRGO2        24        62
  IMST   IMSTRGO3        28        59
  IMST   IMSTRG04        20        51
  IMST   IMSTRG06        16        43
****************************** Bottom of data ********************************
```

2 Press Enter. The 'IMS Preload List Detail' screen appears.

```
AOZP7610 ------------------ IMS Preload List Detail -------- Row 1 to 14 of 23
COMMAND ===>                                                  SCROLL ===> PAGE

IMS Plex Name: $GLOBAL              Start Date  :    /    /    YY/MM/DD
IMS ID       : IMSP                 Start Time  :    :         HH:MM
Job Name     : IMSPRG04
Program Loads:           0-99999999 all loads of a PSB
Prim.Commands: GEN       Generate preload list as file
PSB-Name  Pgm-Loads  Transactions
--------------------------------------------------------------------------------
DCVOAPN1         54           54
DCVOEVN1         40          391
DCVOO1N1         18           53
DCGPO1N1         17          117
DCPN14N1         15          101
DCPN27N1         14           99
DCPN2ON1         14          118
DCVOAVN1          7           52
DCPC1ON1          5            8
DCAL13N1          4            5
DCGPO2N1          3            3
DCSPSEN1          3            3
DCSP24N1          3            6
DCTMKIN1          3            4
```

3 Optionally you can limit the list to the count of loads within PSBs. To do this, specify the desired minimum count of program loads in field **Program Loads** and press Enter.

Now the screen displays:

PSB Name

Name of PSBs on IMS MPP region.

Pgm-Loads

Count of program loads within the PSB.

Transactions

Number of transactions executed in this IMS dependent region.

Generate Control Statements

To generate IMS preload control statements, perform this steps:

1. Type in 'GEN' on the command line
2. Press Enter

The generated control statements will be displayed and you can save them to a file using the ISPF edit command CREATE.

CHAPTER 5

Configuring APA Automation Assistant

This section presents a step-by-step description of the APA Automation Assistant configuration process. The APA Automation Assistant interface to IBM Application Performance Analyzer will be set up during the environment configuration, and is therefore a required part of the APA Automation Assistant setup.

APA Automation Assistant stores all configuration data in a VSAM KSDS, called OPTIONS file. It is possible to keep the configuration data of various sysplexes in the same options file.

The Watchlist setup is optional. APA Automation Assistant provides default watchlists for all environments. These watchlists have the name $GLOBAL. When no additional definitions are done these defaults will be used. It is also possible to modify these installation defaults.

Depending on the user's requirements APA Automation Assistant can be configured to support different environments (like test and production system). So a watchlist for a test system will use different selection criteria as a watchlist for a production system.

When **test and production system** are on the same Lpar then a new options file must be allocated to support these two environments.

When new watchlists are defined the $GLOBAL installation defaults will provide a starting configuration.

The major stages in the configuration process are:

- 'Setting up the IMS Sysplex Watchlist' on page 118
- 'Setting up the Watchlist IMS System(s)' on page 122
- 'Setting up the Sysplex for MQSeries Watchlist' on page 126
- 'Setting up the Watchlist MQSeries System(s)' on page 129.
- 'Setting up the Watchlist Loadlibs' on page 132..

Configuring environment(s)

An environment is basically a z/OS sysplex or a z/OS lpar. When all members of a sysplex should use the same definitions then only the sysplex environment has to be defined. If a lpar should use a different setup then define an environment for this lpar.

During the Application Performance Analyzer Automation Assistant installation process a default environment $GLOBAL has been setup. To add new environments or modify existing perform these steps:

1. Select **Option 6** (**Commands**) in the ISPF Primary Option Menu.
2. Enter "EXEC '*hlq.SAOZEXEC*(AOZEMAIN)' in the ISPF Command Shell to start Application Performance Analyzer Automation Assistant.
3. The Primary Option menu displays.

```
AOZPMAIN ---- Application Performance Analyzer Automation Assistant 1.2.00 ----
                              Primary Option Menu
COMMAND ===>

            Option Dataset: AOZ.V1R2.OPTIONS

          _ Interface to AP Analyzer
            1  AP Analyzer
            2  Archived AP Analyzer Reports

            Watchlist & Threshold Results, History
            3  z/OS
            4  CICS
            5  DB2
            6  IMS
            7  MQSeries

            Miscellaneous
            8  Job Abends, Changed Modules, IMS Preload List

            Customize Environments
            9  Administration

            X  Exit                                                        _
```

4. Enter the name of the options file and select **Option 9** (**Administration**) on the Application Performance Analyzer Automation Assistant Primary Option Menu to configure Application Performance Analyzer Automation Assistant.

Once you've performed these steps, you will see the configuration dialog.

See:

- 'Setting up the Sysplex environment' on page 84
- 'The default is: CAZ0' on page 87.

Setting up the Sysplex environment

To set up your Sysplex environment, perform these steps:

1 Select **Option 1** (**Sysplex**) on the Administration Menu to define your Sysplex environment. The Sysplex Selection List appears.

```
AOZP6000 -------------------- Administration Menu -----------------------------
COMMAND ===>

               Option Dataset: AOZ.V1R2.OPTIONS
               Sysplex Name  :                        blank= Selection List
               Lpar Name     :                        *= generic

         _  Environment Definitions
            1  Sysplex
            2  Lpar

            Watchlist Definitions
            3  z/OS
            4  CICS
            5  DB2
            6  IMS
            7  MQSeries
            8  Loadlibs (Changed Programs)

            AP Analyzer Request Parameter
            9  Sysplex
            A  Lpar                                                          _
```

2 On the Sysplex Selection List screen, select the **$GLOBAL** definition provided by the installation process. The Setup Sysplex screen appears.

```
AOZPSPLX ------------------ SYSPLEX Selection List  ---------- Row 1 to 1 of 1
COMMAND ===>                                                  SCROLL ===> PAGE

Primary Commands:  ADD
Line Commands   :  (S)elect (D)elete

  Sysplex           Created   Time      User      Modified  Time      User
-------------------------------------------------------------------------------
_ $GLOBAL           28/06/06  18:34:29  IBMUSER   28/06/06  18:34:29  IBMUSER
******************************** Bottom of data ********************************
```

Note You can add new Sysplex definitions depending on your installation needs, but you can't delete the **$GLOBAL** Sysplex definition. When new environments are defined with the ADD command the initial values are cloned from the $GLOBAL environment.

Fields on Setup Sysplex screen

The Setup Sysplex screen displays definitions for the Sysplex environment.

```
AOZP6100 ----------------- Setup Sysplex Environment -------------------------
Command ===>

    Sysplex Name      : ZOSPLEX_
    Description       : z/OS Production Sysplex

    APA AA Parameters
    DB2 Sub System ID : DSNP  Name of DB2 to store History
    Keep History      :  180  0-9999 Days (no longer used, set in watchlist)
    Keep Reports      :   30  0-9999 Days
    Automatic Requests: Y     Y es, N o
    Max. Requests/Day : 025   1-999
    Monitor Loadlibs  : Y     Y es, N o, O nly new programs
    Mail Server       : SMTP.IBM.COM
    Email Address     : APA-AA@IBM.COM

    AP Analyzer Parameters
    Product Datasets  : CAZ.V7R1
    Instance ID       : CAZO
```

Basic definitions

The fields on the Setup Sysplex screen are described below.

Sysplex Name

Required field. The name of the Sysplex where the options will apply.

The installation default is *$GLOBAL*

Description

Provide a meaningful description for this Sysplex environment.

APA AA Parameters

The APA Automation Assistant Parameters fields on the Setup Sysplex screen are described below.

DB2 Sub System ID

Required field. Specify the DB2 SSID for the APA Automation Assistant DB2 performance data warehouse.

During installation the DB2 SSID was set to your standards.

Keep History

Reqired field, but only kept for compatibility reasons. This parameter should be specified on watchlist level to provide more granuality.

Specifies how long the performance data will be kept in the DB2 performance data warehouse. The installation default is 180 days.

Enter a number between 0 - 9999 days. If you enter 0, the history will be kept unlimited.

Keep Reports

Reqired field. Specifies how long the IBM Application Performance Analyzer observation results will be kept in the DB2 performance data warehouse. The installation default is 30 days.

Enter a number between 0 - 9999 days. If you enter 0, the history will be kept for ever.

Automatic Requests

Required field. The installation default is N, disabled.

Specifies whether APA Automation Assistant should notify IBM Application Performance Analyzer automatically when candidates for monitoring are identified.

Max Requests/Day

Required field. The installation default is 10.

Specifies how many IBM Application Performance Analyzer requests should be activated per day.

This option works in combination with the previous option **Automatic Requests**.

Monitor Loadlibs

Required field. The installation default is N, disabled.

Specifies whether program changes should be monitored.

This APA Automation Assistant feature can be used to check if any changes have been made to programs during the last monitoring session.

Mail Server

Optional field. The installation default is blank, disabled.

Specifies whether APA Automation Assistant should send an email when automatic requests have been defined. This email will contain a list of all activated IBM Application Performance Analyzer requests.

APA Automation Assistant uses this server name to send the email. This server can be a local z/OS SMTP server (localhost) or a remote server. When the default port number of this mail server is not 25, then specify the port number after the server name separated with a colon.

your.smtp.server:1234

This definition will route the email to the mail server **your.smtp.server** on port 1234.

LOCALHOST

This definition will route the email to the local z/OS mail server on port 25. The local z/OS server will have to deliver this email.

Email Address

Optional field. The installation default is blank, disabled. When a mail server has been specified then this field is mandatory.

This is APA Automation Assistant own email address. It will be used as sender address.

AP Analyzer Parameters

The IBM Application Performance Analyzer fields on the Setup Sysplex screen are described below.

Product Datasets

Required field. Specify the high level qualifier for IBM Application Performance Analyzer datasets.

This option is needed by APA Automation Assistant to interface with IBM Application Performance Analyzer.

Instance ID

Required field. Specify the IBM Application Performance Analyzer instance ID.

This option is needed by APA Automation Assistant to interface with IBM Application Performance Analyzer.

The default is: CAZ0

Setting up the Lpar environment (optional)

When the Sysplex environment has been defined, you can define the Lpar(s) that should have a different setup as the sysplex. For each Lpar that is defined, IBM Application Performance Analyzer and Application Performance Analyzer Automation Assistant can have different option values.

Perform these steps:

1. Select **Option 2** (**Lpar**) on the Administration Menu screen and specify a Sysplex and/or Lpar name, or enter both Sysplex and Lpar name to display the Lpar setup screen.
2. The Setup Lpar screen appears.

Fields on Setup Lpar screen

```
AOZP6200 ------------------- Setup Lpar Environment --------------------------
Command ===>

    Sysplex Name      : ZOSPLEX
    Lpar Name         : SYS1
    Description       : NEW LPAR ON SYSPLEX ZOSPLEX

    APA AA Parameters
    DB2 Sub System ID : DSNP
    Keep History      :  180  0-9999 Days (no longer used, set in watchlist)
    Keep Reports      :   30  0-9999 Days
    Automatic Requests: Y     Y es, N o
    Max. Requests/Day : 025   1-999
    Monitor Loadlibs  : Y     Y es, N o, O nly new programs
    Mail Server       : POP3.SEC
    Email Address     : APA-AA@IBM.COM

    AP Analyzer Parameters
    Product Datasets  : CAZ.V7R1
    Instance ID       : CAZ0
```

Basic definitions

The fields on the Setup Lpar screen are described below.

Sysplex Name

The name of the Sysplex where the lpar belongs to. Read only.

Lpar Name

Required field. The name of the Lpar where the following options will apply.

Description

Provide a meaningful description for this Lpar environment.

APA AA Parameters

The APA Automation Assistant Parameters fields on the Setup Lpar screen are described below.

DB2 Sub System ID

Required field. Specify the DB2 subsystem ID for the APA Automation Assistant DB2 Performance Data warehouse.

During installation the DB2 SSID was set to your standard.

The default is: DSN1

Keep History

Reqired field, but only kept for compatibility reasons. This parameter should be specified on watchlist level to provide more granuality.

Specifies how long the performance data will be kept in the DB2 Performance Data Warehouse. The installation default is 180 days.

Enter a number between 0 - 9999 days. If you enter 0, the history will be kept unlimited.

Keep Reports

Reqired field. Specifies how long the IBM Application Performance Analyzer observation results will be kept in the DB2 PDWH. The installation default is 30 days.

Enter a number between 0 - 9999 days. If you enter 0, the observation results will be kept for ever.

Automatic Requests

Required field. The installation default is N.

Specifies whether APA Automation Assistant should notify IBM Application Performance Analyzer automatically when candidates for monitoring are identified.

Max Requests/Day

Required field. The installation default is 10.

Specifies how many IBM Application Performance Analyzer requests should be activated per day.

This option works in combination with the previous option **Automatic Requests**.

Monitor Loadlibs

Required field. The installation default is N, disabled.

Specify whether program changes should be monitored.

This APA Automation Assistant feature can be used to check if any changes have been made to programs during the last monitoring session.

Mail Server

Optional field. The installation default is blank, disabled.

Specifies whether APA Automation Assistant should send an email when automatic requests have been defined. This email will contain a list of all activated IBM Application Performance Analyzer requests.

APA Automation Assistant uses this server name to send the email. This server can be a local z/OS SMTP server (localhost) or a remote server. When the default port number of this mail server is not 25, then specify the port number after the server name separated with a colon.

your.smtp.server:1234

This definition will route the email to the mail server **your.smtp.server** on port 1234.

LOCALHOST

This definition will route the email to the local z/OS mail server on port 25. The local z/OS server will have to deliver this email.

Email Address

Optional field. The installation default is blank, disabled. When a mail server has been specified then this field is mandatory.

This is APA Automation Assistant own email address. It will be used as sender address.

AP Analyzer Parameters

The IBM Application Performance Analyzer Parameters fields on the Setup Lpar screen are described below.

Product Datasets

Required field. Specify the high level qualifier for IBM Application Performance Analyzer datasets.

This option is needed by APA Automation Assistant to interface with IBM Application Performance Analyzer.

Instance ID

Required field. Specify the IBM Application Performance Analyzer instance ID.

This option is needed by APA Automation Assistant to interface with IBM Application Performance Analyzer.

The default is: CAZ0

Setting up the z/OS Watchlist

When the Sysplex and/or Lpar environment(s) have been defined, you should setup the Watchlist definitions for z/OS, CICS, DB2, IMS, MQS and Loadlibs.

The z/OS watchlist is a set of filter criteria that triggers Application Performance Analyzer Automation Assistant to select jobs for storing into the DB2 PDWH. The z/OS watchlist controls the selection of SMF records type 30-4.

Perform these steps to setup the Watchlist definitions for z/OS:

1. Select **Option 3** (**z/OS**) on the Administration Menu screen to define the z/OS Watchlists. The Watchlist z/OS screen appears.
2. Select **Option 1** (**Sysplex**).
3. If you did not specify a Sysplex, the z/OS Watchlist selection screen appears. Select a Sysplex from the list and press Enter or type in 'ADD' at the command line to define a new z/OS Sysplex Watchlist.
4. The Setup z/OS Sysplex Watchlist appears. The threshold values based on z/OS Sysplex can be defined on this screen.

Note All z/OS Sysplexes will be processed with options from the default Watchlist $GLOBAL when no watchlist is defined.

Fields on Setup z/OS Sysplex Watchlist screen

```
   AOZP6310 ---------------- Setup z/OS Sysplex Watchlist ---------------------
Command ===>

Sysplex Name      : $GLOBAL
Description       : DEFAULT Z/OS WATCHLIST

Elapsed Time      :   30      0-9999 min   Resource Consumption per second
CPU Time          :   10      0-9999 min   CPU Time       :   0      0-999 msec
Number of EXCP's  :    100000 0-999999999  Number EXCP's  :        0 0-99999999
Total Serv. Units :    100000 0-999999999  Tot.Serv. Units:        0 0-99999999
CPU Serv. Units   :         0 0-999999999  CPU Serv. Units:        0 0-99999999
IO Serv. Units    :         0 0-999999999  IO Serv. Units :        0 0-99999999
Memory Serv. Units:         0 0-999999999
Abended Jobs?     : N          Y es, N o
Max valid CondCode:    4      0-4095
Build Abend List  : Y          Y es, N o
Keep History      :  180      0-9999 Days
Email Address     :

Define Include/Exclude Lists
Activate Includes : N          Y es, N o
Activate Excludes : N          Y es, N o
                    _  1 Include by Program Name     3 Exclude by Program Name
                       2 Include by Job Name         4 Exclude by Job Name
```

Basic watchlist definitions

The selection fields on the Setup z/OS Sysplex Watchlist screen are described below.

Sysplex Name

Required field. The name of the Sysplex where the following options will apply.

The default is: **$GLOBAL**

Description

Provide a meaningful description for this watchlist.

Watchlist Definition

The Watchlist definition fields on the Setup z/OS Sysplex Watchlist screen are described below. When a job step exceeds a value then this job step is selected. All values are treated as logical OR.

Elapsed Time

Required field. The installation default is 30 minutes.

Enter a number between 0 - 9999 minutes. If you enter 0, this option is deactivated and no selection is made on elapsed time.

CPU Time

Required field. The installation default is 10 minutes.

Enter a number between 0 - 9999 minutes. If you enter 0, this option is deactivated and no selection is made on CPU time.

Number of EXCP´s

Required field. The installation default is 100.000 EXCP's.

Enter a number between 0 - 99999999 EXCP's. If you enter 0, this option is deactivated and no selection is made on EXCP's.

Total Service Units

Required field. The installation default is100.000 service units.

Enter a number between 0 - 999999999 service units. If you enter 0, this option is deactivated and no selection is made on service units.

CPU Service Units

Required field. The installation default is 0, disabled.

Enter a number between 0 - 999999999 service units. If you enter 0, this option is deactivated and no selection is made on service units.

IO Service Units

Required field. The installation default isis 0, disabled..

Enter a number between 0 - 999999999 service units. If you enter 0, this option is deactivated and no selection is made on service units.

Memory Service Units

Required field. The installation default isis 0, disabled..

Enter a number between 0 - 999999999 service units. If you enter 0, this option is deactivated and no selection is made on service units.

Resource Consumption per second

In contrast to the above definitions these selection critera are ratios. The Resource Consumption fields on the Setup z/OS Sysplex Watchlist screen are described below.

CPU Time

Required field. The installation default is 0 milliseconds, disabled.

Enter a number between 0 - 999 milliseconds. If you enter 0, this option is deactivated and this ratio will not be used for selection. This ratio will select jobs independent of the absolute CPU time. It will select based on the CPU consumption per second:

- Assume that you have specified 10 minutes absolute CPU Time and 500 milliseconds ratio CPU Time.
- This combination selects those jobs that have consumed more than 10 minutes CPU Time **or** consumed more than 500 milliseconds CPU Time per second.
- With this ratio, you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on CPU time.

Note This ratio will only be used to select jobs that have an elapsed time of more than 1 minute. A calculation based on a time frame of less than 1 minute is not deemed significant.

Nbr of EXCP´s

Required field. The installation default is 0 EXCP's, disabled.

Enter a number between 0 - 99999999 EXCP's. If you enter 0, this option is deactivated and this ratio will not be used for selection.

This ratio will select jobs independent of the absolute number of EXCP´s.

- Assume that you have specified 100.000 absolute EXCP's and 7.500 ratio EXCP's.
- This combination will select only those jobs that have consumed more than 100.000 absolute EXCP's **or** consumed more than 7.500 EXCP's per second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on EXCP's.

Total Service Units

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 service units. If you enter 0, this option is deactivated and this ratio will not be used for selection. This ratio will select jobs independent of the absolute service units.

- Assume that you have specified 100.000 absolute Service Units and 5.000 ratio service units.
- This combination will select only those jobs that have consumed more than 100.000 absolute service units **or** consumed more than 5.000 Service Units per second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on Service Units.

CPU Service Units

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 service units. If you enter 0, this option is deactivated and this ratio will not be used for selection. This ratio will select jobs independent of the absolute CPU service units.

IO Service Units

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 service units. If you enter 0, this option is deactivated and this ratio will not be used for selection. This ratio will select jobs independent of the absolute IO service units.

Abended Jobs?

Required field. The installation default is N, disabled.

Specify if abended jobs should be processed. Enter Y for Yes or N for No.

If you select Y, all abended jobs will be included in the selection process.

Max valid CondCode

Required field. The installation default is 4.

Specify the maximum condition code that is treated as a “good” job execution. Job steps exceeding this value will be treated as abended.

Enter a number between 0 - 4095. If you enter 0, only jobs which terminated with condition code "0" will be processed.

Build Abend List

Required field. The installation default is N, disabled.

Specify if an abend list should be built. Enter Y for Yes or N for No.

If you select Y, all abended jobs will be stored in a separate DB2 table in the APA Automation Assistant DB2 PDWH independent of the selection criteria.

Keep History

Reqired field. The installation default is 180 days.

Specifies how long the Watchlist data will be kept in the DB2 performance data warehouse.

Enter a number between 0 - 9999 days. If you enter 0, the watchlist data will be kept for ever.

Email Address

Optional field. The installation default is blank, disabled.

APA Automation Assistant uses this email address to notify about automatic request activations. The email will contain a list of the activated IBM Application Performance Analyzer requests. APA Automation Assistant sends the notification email to this address. Please verify that the setup for the mail server has been done correctly.

Define Include / Exclude Lists

The Define Include / Exclude Lists fields on the Setup z/OS Sysplex Watchlist screen are described below.

Activate Includes

Required field. The installation default is N, disabled.

Specify if the include lists should be used for processing.

Enter Y for Yes or N for No. Please see 'Include and Exclude Lists' on page 141 for more information.

Activate Excludes

Required field. The installation default is N, disabled.

Specify if the exclude lists should be used for processing.

Enter Y for Yes or N for No. Please see 'Include and Exclude Lists' on page 141 for more information.

Setting up the z/OS Lpar Watchlist

When the **z/OS Sysplex Watchlist** has been defined, you can define the Watchlist for Lpar(s) that belongs to this z/OS Sysplex but should use a different setup.

Perform these steps:

1. Select **Option 3** (**z/OS**) on the Administration Menu screen to define the z/OS Watchlists. The Watchlist z/OS screen appears.
2. Select **Option 2** (**Lpar**) on the Watchlist z/OS screen to define the Lpar(s) for z/OS Watchlist.
3. If you did not specify a Sysplex, the Lpar z/OS Watchlist selection screen appears. Select a Lpar from the list and press Enter or type in 'ADD' at the command line to define a new z/OS Lpar Watchlist.
4. The Setup for z/OS Lpar Watchlist screen appears. The threshold values based on z/OS Lpar can be defined on this screen.

Note All Lpar(s) for which a Watchlist is not defined, will be processed with options from the Watchlist definitions of the z/OS Sysplex where the Lpar(s) belongs to.

Fields on Setup z/OS Lpar Watchlist screen

```
   AOZP6320 ----------------- Setup z/OS LPAR Watchlist -----------------------
Command ===>

Sysplex Name      : ZOSPLEX
Lpar Name         : SYS2
Description       : NEW LPAR ON ZOSPLEX

Elapsed Time      :   30      0-9999 min   Resource Consumption per second
CPU Time          :   10      0-9999 min   CPU Time       : 750      0-999 msec
Number of EXCP's  :    100000 0-999999999  Number EXCP's  :    45600 0-99999999
Total Serv. Units :    100000 0-999999999  Tot Serv. Units:    12000 0-99999999
CPU Serv. Units   :     42300 0-999999999  CPU Serv. Units:     7000 0-99999999
IO Serv. Units    :    123456 0-999999999  IO Serv. Units :     8000 0-99999999
Memory Serv. Units:     55555 0-999999999
Abended Jobs      : Y         Y es, N o
Max valid CondCode:    4      0-4095
Build Abend List  : Y         Y es, N o
Email Address     :
Define Include/Exclude Lists
Activate Includes : N         Y es, N o
Activate Excludes : N         Y es, N o
                    _  1 Include by Program Name     3 Exclude by Program Name
                       2 Include by Job Name         4 Exclude by Job Name
```

Basic watchlist definitions

The fields on the Setup z/OS Lpar Watchlist screen are described below.

Sysplex Name

The name of the Sysplex where the Lpar belongs to.

Lpar Name

Required field. The name of the Lpar where the options will apply.

Description

Provide a meaningful description for this Lpar watchlist.

Watchlist Definition

The Watchlist definition fields on the Setup z/OS Lpar Watchlist screen are described below.

Elapsed Time

Required field. The installation default is 30 minutes.

Enter a number between 0 - 9999 minutes. If you enter 0, this option is deactivated and no selection is made on elapsed time.

CPU Time

Required field. The installation default is 10 minutes.

Enter a number between 0 - 9999 minutes. If you enter 0, this option is deactivated and no selection is made on CPU time.

Number of EXCP´s

Required field. The installation default is100.000 EXCP's.

Enter a number between 0 - 99999999 EXCP's. If you enter 0, this option is deactivated and no selection is made on EXCP's.

Total Service Units

Required field. The installation default is100.000 service units.

Enter a number between 0 - 99999999 Service Units. If you enter 0, this option is deactivated and no selection is made on Service Units.

CPU Service Units

Required field. The installation default is 0, disabled.

Enter a number between 0 - 999999999 service units. If you enter 0, this option is deactivated and no selection is made on service units.

IO Service Units

Required field. The installation default isis 0, disabled..

Enter a number between 0 - 999999999 service units. If you enter 0, this option is deactivated and no selection is made on service units.

Memory Service Units

Required field. The installation default isis 0, disabled..

Enter a number between 0 - 999999999 service units. If you enter 0, this option is deactivated and no selection is made on service units.

Resource Consumption per second

The Resource Consumption fields on the Setup z/OS Lpar Watchlist screen are described below.

CPU Time

Required field. The installation default is 0 milliseconds, disabled.

Enter a number between 0 - 999 milliseconds. If you enter 0, this option is deactivated and this ratio will not be used for selection. This ratio will select jobs independent of the absolute CPU time. It will select based on the CPU consumption per second:

- Assume that you have specified 10 minutes absolute CPU Time and 500 milliseconds ratio CPU Time.
- This combination will select those jobs that have consumed more than 10 minutes CPU Time **or** consumed more than 500 milliseconds CPU Time per second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on CPU time.

Nbr of EXCP´s

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 EXCP's. If you enter 0, this option is deactivated and this ratio will not be used for selection. This ratio will select jobs independent of the absolute number of EXCP´s.

- Assume that you have specified 100.000 absolute EXCP's and 5.000 ratio EXCP's.
- This combination will select those jobs that have consumed more than 100.000 absolute EXCP's **or** consumed more than 5.000 EXCP's per second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on EXCP's.

Total Service Units

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 Service Units. If you enter 0, this option is deactivated and this ratio will not be used for selection. This ratio will select jobs independent of the absolute service units.

- Assume that you have specified 100.000 absolute service units and 5.000 ratio service units.
- This combination will select only those jobs that have consumed more than 100.000 absolute service units **or** consumed more than 5.000 service units per second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on service units.

CPU Service Units

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 service units. If you enter 0, this option is deactivated and this ratio will not be used for selection. This ratio will select jobs independent of the absolute CPU service units.

IO Service Units

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 service units. If you enter 0, this option is deactivated and this ratio will not be used for selection. This ratio will select jobs independent of the absolute IO service units.

Abended Jobs?

Required field. The installation default is N, disabled.

Specify if abended jobs should be processed. Enter Y for Yes or N for No.

If you select Y, all abended jobs will be included in the selection process.

Max valid CondCode

Required field. The installation default is 4.

Specify the maximum condition code that is treated as a “good” job execution. Job steps exceeding this value will be treated as abended.

Enter a number between 0 - 4095. If you enter 0, only jobs which terminated with condition code "0" will be processed.

Build Abend List

Required field. The installation default is N, disabled.

Specify if an abend list should be built. Enter Y for Yes or N for No.

If you select Y, all abended jobs will be stored in a separate DB2 table in the APA Automation Assistant DB2 PDWH independent of the selection criteria.

Email Address

Optional field. The installation default is blank, disabled.

APA Automation Assistant uses this email address to notify about automatic request activations. The email will contain a list of the activated IBM Application Performance Analyzer requests. APA Automation Assistant sends the notification email to this address. Please verify that the setup for the mail server has been done correctly.

Define Include / Exclude Lists

The Define Include / Exclude Lists fields on the Setup z/OS Lpar Watchlist screen are described below.

Activate Includes

Required field. The installation default is N, disabled.

Specify if the include lists should be used for processing.

Enter Y for Yes or N for No. Please see 'Include and Exclude Lists' on page 141 for more information.

Activate Excludes

Required field. The installation default is N, disabled.

Specify if the exclude lists should be used for processing.

Enter Y for Yes or N for No. Please see 'Include and Exclude Lists' on page 141 for more information.

Setting up the CICS Sysplex Watchlist

The CICS watchlist is a set of filter criteria that trigger APA Automation Assistant to select jobs for storing into the DB2 PDWH. The CICS watchlist controls the selection of SMF records type 110.

Perform these steps to setup the Watchlist definitions for CICS:

1. Select **Option 4** (**CICS**) on the Administration Menu to define the CICS Watchlists. The Watchlist CICS screen appears.
2. Select **Option 1** (**CICS Sysplex**).
3. If you did not specify a Sysplex, the CICS Sysplex Watchlist selection screen appears.
   Select a CICS Sysplex from the list and press Enter or
   type in 'ADD' at the command line to define a new CICS Sysplex Watchlist.
4. The Setup CICS Sysplex Watchlist screen appears.
   The threshold values based on CICS Sysplex can be defined on this screen.

Note All CICS Sysplexes for which a Watchlist is not be defined, will be processed with options from the default Watchlist definitions $GLOBAL.

Fields on Setup CICS Sysplex Watchlist screen

```
AOZP6910 ---------------- Setup CICS Sysplex Watchlist -----------------------
Command ===>

  CICS Sysplex Name : $GLOBAL
  z/OS Sysplex Name : $GLOBAL
  Description       : DEFAULT CICS WATCHLIST

  Online Processing
  Elapsed Time per TRX: 1000      0-9999 msec
  Response Time/TRX   :    0      0-9999 msec
  CPU Time per TRX    :  100      0-9999 msec
  File Req's per TRX  :       0  0-99999999
  Total Nbr File Req's:     1000  0-99999999

  Abended Transactions: N         Y es, N o
  Build Abend List    : Y         Y es, N o
  Keep History        :  180      0-9999 Days
  Email Address       :

  Define Include/Exclude Lists
  Activate Includes : N   Y es, N o
  Activate Excludes : N   Y es, N o
                      _ 1 Include by Program Name      3 Exclude by Program
                        2 Include by Transaction Name  4 Exclude by Transaction
```

Basic watchlist definitions

The fields on the Setup CICS Sysplex Watchlist screen are described below.

CICS Sysplex Name

Required field. The name of the CICS Sysplex where the options will apply.

z/OS Sysplex Name

Required field. The name of the z/OS Sysplex assigned to the CICS Sysplex. If $GLOBAL is specified, the installation defaults apply.

Description

Provide a meaningful description for this CICS Sysplex.

Watchlist Definition - Online Processing

The Watchlist Definition fields on the Setup CICS Sysplex Watchlist screen are described below.

Elapsed Time per TRX

Required field. The installation default is 1.000 milliseconds.

Enter a number between 0 - 9999 milliseconds. If you enter 0, this option is deactivated and no selection is made on elapsed time.

Response Time per TRX

Required field. The installation default is 0, disabled.

Enter a number between 0 - 9999 milliseconds. If you enter 0, this option is deactivated and no selection is made on elapsed time.

CPU Time per TRX

Required field. The installation default is 100 milliseconds.

Enter a number between 0 - 9999 milliseconds. If you enter 0, this option is deactivated and no selection is made on CPU time.

Total Number of File Requests

Required field. The installation default is 1.000.

Enter a number between 0 - 99999999 File IO's. If you enter 0, this option is deactivated and no selection is made on File IO's.

All file IO's of a specific transaction type are accumulated and checked against this value.

Ratio selection criteria

From the performance perspective, ratios are a better way to filter candidates for IBM Application Performance Analyzer.

FileRequest's per TRX.

Required field. The installation default 0, disabled.

Enter a number between 0 - 99999999 File IO's per second. If you enter 0, this option is deactivated and no selection is made on File IO's per second. This ratio will select transactions independent of the absolute number of File IO's.

- Assume that you have specified 100.000 absolute File IO's and 500 File IO's per transaction.
- This combination will select all CICS Online transactions which had performed more than 100.000 absolute File IO's **or** more than 500 File IO's per transaction.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on File IO's.

Abend Options

Abended Transactions

Required field. The installation default is N, disabled.

Specify if abended transactions should be processed. Enter Y for Yes or N for No.

If you select Y, all abended transactions will be included in the selection process.

Build Abend List

Required field. The installation default is N, disabled.

Specify if an abend list should be build. Enter Y for Yes or N for No.

If you select Y, all abended CICS transactions will be stored into a separate DB2 table in the APA Automation Assistant DB2 PDWH independent of the selection criteria.

Keep History

Reqired field. The installation default is 180 days.

Specifies how long the Watchlist data will be kept in the DB2 performance data warehouse.

Enter a number between 0 - 9999 days. If you enter 0, the watchlist data will be kept for ever.

Email Address

Optional field. The installation default is blank, disabled.

APA Automation Assistant uses this email address to notify about automatic request activations. The email will contain a list of the activated IBM Application Performance Analyzer requests. APA Automation Assistant sends the notification email to this address. Please verify that the setup for the mail server has been done correctly.

Define Include / Exclude Lists

The Define Include / Exclude Lists fields on the Setup CICS Sysplex Watchlist screen are described below.

Activate Includes

Required field. The installation default is N, disabled.

Specify if the include lists should be used for processing.

Enter Y for Yes or N for No. Please see ‘Include and Exclude Lists’ on page 141 for more information.

Activate Excludes

Required field. The installation default is N, disabled.

Specify if the exclude lists should be used for processing.

Enter Y for Yes or N for No. Please see ‘Include and Exclude Lists’ on page 141 for more information.

Setting up the CICS Appl-ID Watchlist

When the **CICS Sysplex Watchlist** has been defined, you can define the Watchlist for a CICS Applid that should use different selection criteria as the CICS Plex.

Perform these steps:

1. Select **Option 4** (**CICS**) on the Administration Menu to define the CICS Watchlists. The Watchlist CICS screen appears.
2. Select **Option 2** (**CICS APPL-ID**) on the Watchlist CICS screen to define the CICS Appl-ID Watchlist.
3. If you have not specified a Sysplex, the CICS Appl-ID Watchlist Selection screen appears. Select a CICS from the list and press Enter or type in 'ADD' at the command line to define a new CICS Appl-ID Watchlist.
4. The Setup CICS Appl-ID Watchlist screen appears. The threshold values based on CICS System can be defined on this screen.

Note All CICS System(s) for which a Watchlist is not be defined, will be processed with options from the Watchlist definitions of the CICS Sysplex watchlist.

Fields on Setup CICS Appl-ID Watchlist screen

```
AOZP692O ---------------- Setup CICS Appl-ID Watchlist -----------------------
Command ===>

  CICS Sysplex Name : CICSPLEX
  CICS Appl-ID      : CICSP___
  Description       : DEFAULT CICS WATCHLIST

  Online Processing
  Elapsed Time per TRX: 1000      0-9999 msec
  Response Time/TRX   :  250      0-9999 msec
  CPU Time per TRX    :  100      0-9999 msec
  File Req's per TRX  :       45  0-99999999
  Total Nbr File Req's:     1000  0-99999999

  Abended Transactions: Y         Y es, N o
  Build Abend List    : Y         Y es, N o
  Email Address       :

  Define Include/Exclude Lists
  Activate Includes : N   Y es, N o
  Activate Excludes : N   Y es, N o
                      _ 1 Include by Program Name      3 Exclude by Program
                        2 Include by Transaction Name  4 Exclude by Transaction
```

Basic watchlist definitions

The Environment fields on the Setup CICS Appl-ID Watchlist screen are described below.

CICS Sysplex Name

The name of the CICS Sysplex where the following CICS application is assigned to.

CICS Appl-ID

Required field. The application name of the CICS instance where the following options will apply.

Description

Provide a meaningful description for this CICS instance.

Watchlist Definition - Online Processing

The Watchlist Definition fields on the Setup CICS Appl-ID Watchlist screen are described below.

Elapsed Time

Required field. The installation default is 1.000 milliseconds.

Enter a number between 0 - 9999 milliseconds. If you enter 0, this option is deactivated and no selection is made on elapsed time.

CPU Time

Required field. The installation default is 100 milliseconds..

Enter a number between 0 - 9999 milliseconds. If you enter 0, this option is deactivated and no selection is made on CPU time.

Number of File Requests

Required field. The installation default is 1.000 File IO's.

Enter a number between 0 - 99999999 File IO's. If you enter 0, this option is deactivated and no selection is made on File IO's.

All file IO's of a specific transaction type are accumulated and checked against this value.

Ratio selection criteria

From the performance perspective, ratios are a better way to filter candidates for IBM Application Performance Analyzer.

File Request's per TRX.

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 File IO's per second. If you enter 0, this option is deactivated and no selection is made on File IO's per second. This ratio will select transactions independent of the absolute number of File IO's.

- Assume that you have specified 1.000 absolute File IO's and 50 File IO's per TRX.
- This combination will select all CICS Online transactions which had performed more than 1.000 absolute File IO's **or** more than 50 File IO's per TRX.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on File IO's.

Abend Options

Abended Transactions

Required field. The installation default is N, disabled.

Specify if abended CICS transactions should be processed.
Enter Y for Yes or N for No.

If you select Y, all abended transactions will be included in the selection process.

Build Abend List

Required field. The installation default is N, disabled.

Specify if an abend list should be build. Enter Y for Yes or N for No.

If you selected Y, all abended CICS transactions will be stored into a separate DB2 table in the APA Automation Assistant DB2 PDWH independent of the selection criteria.

Email Address

Optional field. The installation default is blank, disabled.

APA Automation Assistant uses this email address to notify about automatic request activations. The email will contain a list of the activated IBM Application Performance Analyzer requests. APA Automation Assistant sends the notification email to this address. Please verify that the setup for the mail server has been done correctly.

Define Include / Exclude Lists

The Define Include / Exclude Lists fields on the Setup CICS Sysplex Watchlist screen are described below.

Activate Includes

Required field. The installation default is N, disabled.

Specify if the include lists should be used for processing.

Enter Y for Yes or N for No. Please see 'Include and Exclude Lists' on page 141 for more information.

Activate Excludes

Required field. The installation default is N, disabled.

Specify if the exclude lists should be used for processing.

Enter Y for Yes or N for No. Please see 'Include and Exclude Lists' on page 141 for more information.

Setting up the DB2 Sysplex Watchlist

Perform these steps to setup the Watchlist definitions for DB2:

1. Select **Option *5*** (**DB2**) on the Administration Menu to define the DB2 Watchlists. The Watchlist DB2 screen appears.
2. Select **Option 1** (**DB2 Sysplex**).
3. If you have not specified a Sysplex, the DB2 Sysplex Watchlist selection screen appears. Select a DB2 Sysplex from the list and press Enter or type in 'ADD' at the command line to define a new DB2 Sysplex Watchlist.
4. The Setup DB2 Sysplex Watchlist screen appears. The threshold values based on DB2 Sysplex can be defined on this screen.

Note All DB2 Sysplex for which a Watchlist is not be defined, will be processed with options from the default Watchlist $GLOBAL.

Fields on Setup DB2 Sysplex Watchlist screen

```
AOZP6410 ---------------- Setup DB2 Sysplex Watchlist -------------------------
Command ===>

  DB2 Sysplex Name  : DB2PROD_
  z/OS Sysplex Name : $GLOBAL
  Description       : PRODUCTION DB2PLEX
  Online Processing                 Batch Processing
  Elapsed Time      : 1000  msec    Elapsed Time      :   30  min
  CPU Time          :  100  msec    CPU Time          :   10  min
  Number SQL Calls  :     1000      Number SQL Calls  :   100000
  Number Get Pages  :     1000      Number Get Pages  :   100000
  Number Sync Reads :      800      Number Sync Reads :     2500
  SQL Calls per Sec :       50      SQL Calls per Min :     1000
  Get Pages per Sec :       40      Get Pages per Min :     5000
  Sync Read per Sec :       15      Sync Read per Min :      150

  Include Abends    : Y  Y es, N o  Build Abend List  : Y   Y es, N o
  Keep History      :   70  0-9999 Days
  Email Address     :
  Define Include/Exclude Lists
  Activate Includes : N  Y es, N o
  Activate Excludes : N  Y es, N o
                      _  1 Include by Plan Name     3 Exclude by Plan Name
                         2 Include by Job Name      4 Exclude by Job Name
```

Basic watchlist definitions

The fields on the Setup DB2 Sysplex Watchlist screen are described below.

DB2 Sysplex Name

Required field. The name of the DB2 Sysplex where the following options will apply.

z/OS Sysplex Name

Required field. The name of the z/OS Sysplex assigned to the DB2 Sysplex. If $GLOBAL is specified, the installation defaults apply.

Description

Provide a meaningful description for this DB2 Sysplex.

Watchlist Definition - Online Processing

The Watchlist definition fields on the Setup DB2 Sysplex Watchlist screen are described below.

Elapsed Time

Required field. The installation default is 1.000 milliseconds.

Enter a number between 0 - 9999 milliseconds. If you enter 0, this option is deactivated and no selection is made on elapsed time.

CPU Time

Required field. The installation default is 100 milliseconds.

Enter a number between 0 - 9999 milliseconds. If you enter 0, this option is deactivated and no selection is made on CPU time.

Number SQL Calls

Required field. The installation default is 1.000.

Enter a number between 0 - 99999999 SQL Calls. If you enter 0, this option is deactivated and no selection is made on SQL Calls.

All SQL Calls are accumulated and checked against the selection value.

Number Get Pages

Required field. The installation default is 1.000.

Enter a number between 0 - 99999999 Get Pages. If you enter 0, this option is deactivated and no selection is made on Get Pages.

Number Sync Reads

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 Sync Reads. If you enter 0, this option is deactivated and no selection is made on Sync Reads.

Ratio selection criteria

From the performance perspective, ratios are a better way to filter candidates for IBM Application Performance Analyzer.

SQL Calls per Sec

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 SQL Calls per Sec. If you enter 0, this option is deactivated and no selection is made on SQL Calls per Sec. This ratio will select transactions independent of the absolute number of SQL calls.

- Assume that you have specified 1.250 absolute SQL Calls and 150 ratio SQL Calls per Sec.
- This combination will select all DB2 Online transactions which consumed more than 1.250 absolute SQL Calls **or** consumed more than 150 SQL Calls per Second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on SQL Calls.

Get Pages per Sec

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 Get Pages per Sec. If you enter 0, this option is deactivated and no selection is made on Get Pages per Sec. This ratio will select transactions independent of the absolute number of Get Pages.

- Assume that you have specified 1000 absolute Get Pages and 25 ratio Get Pages per Sec.
- This combination will select all DB2 Online transactions which consumed more than 1000 absolute Get Pages **or** consumed more than 25 Get Pages per Second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on SQL Get Pages.

Sync Reads per Sec

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 Sync Reads per Sec. If you enter 0, this option is deactivated and no selection is made on Sync Reads per Sec.This ratio will select transactions independent of the absolute number of Sync Reads.

- Assume that you have specified 25.000 absolute Sync Reads and 500 ratio Sync Reads per Sec.
- This combination will select all DB2 Online transactions which consumed more than 25.000 absolute Sync Reads **or** consumed more than 500 Sync Reads per Second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on Sync Reads.

Watchlist Definition - Batch Processing

The Watchlist Definition fields on the Setup DB2 Sysplex Watchlist screen are described below.

Elapsed Time

Required field. The installation default is 30 minutes.

Enter a number between 0 - 9999 minutes. If you enter 0, this option is deactivated and no selection is made on elapsed time.

CPU Time

Required field. The installation default is 10 minutes.

Enter a number between 0 - 9999 minutes. If you enter 0, this option is deactivated and no selection is made on CPU time.

Number SQL Calls

Required field. The installation default is 100.000 SQL calls.

Enter a number between 0 - 99999999 SQL Calls. If you enter 0, this option is deactivated and no selection is made on SQL Calls.

Number Get Pages

Required field. The installation default is 100.000 Get Pages.

Enter a number between 0 - 99999999 Get Pages. If you enter 0, this option is deactivated and no selection is made on Get Pages.

Number Sync Reads

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 Sync Reads. If you enter 0, this option is deactivated and no selection is made on Sync Reads.

Ratio selection criteria

From the performance perspective, ratios are a better way to filter candidates for IBM Application Performance Analyzer.

SQL Calls per Sec

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 SQL Calls per Sec. If you enter 0, this option is deactivated and no selection is made on SQL Calls per Sec. This ratio will select batch jobs independent of the absolute number of SQL calls.

- Assume that you have specified 100.250 absolute SQL Calls and 150 ratio SQL Calls per Sec.
- This combination will select all DB2 batch jobs which consumed more than 100.250 absolute SQL Calls **or** consumed more than 150 SQL Calls per Second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on SQL Calls.

Get Pages per Sec

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 Get Pages per Sec. If you enter 0, this option is deactivated and no selection is made on Get Pages per Sec. This ratio will select batch jobs independent of the absolute number of Get Pages.

- Assume that you have specified 100.000 absolute Get Pages and 250 ratio Get Pages per Sec.
- This combination will select all DB2 batch jobs which consumed more than 100.000 absolute Get Pages **or** consumed more than 250 Get Pages per Second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on SQL Get Pages.

Sync Reads per Sec

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 Sync Reads per Sec. If you enter 0, this option is deactivated and no selection is made on Sync Reads per Sec. This ratio will select batch jobs independent of the absolute number of Sync Reads.

- Assume that you have specified 250.000 absolute Sync Reads and 500 ratio Sync Reads per Sec.
- This combination will select all DB2 batch jobs which consumed more than 250.000 absolute Sync Reads **or** consumed more than 500 Sync Reads per Second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on Sync Reads.

Abend Options

Include Abends

Required field. The installation default is N, disabled.

Specify if abended DB2 calls should be processed. Enter Y for Yes or N for No.

If you select Y, all abended DB2 transactions and batch jobs will be included in the selection process.

Build Abend List

Required field. The installation default is N, disabled.

Specify if an abend list should be build. Enter Y for Yes or N for No.

If you select Y, all abended DB2 jobs or transactions will be stored into a separate DB2 table in the APA Automation Assistant DB2 PDWH independent of the selection criteria.

Keep History

Reqired field. The installation default is 180 days.

Specifies how long the Watchlist data will be kept in the DB2 performance data warehouse.

Enter a number between 0 - 9999 days. If you enter 0, the watchlist data will be kept for ever.

Email Address

Optional field. The installation default is blank, disabled.

APA Automation Assistant uses this email address to notify about automatic request activations. The email will contain a list of the activated IBM Application Performance Analyzer requests. APA Automation Assistant sends the notification email to this address. Please verify that the setup for the mail server has been done correctly.

Define Include / Exclude Lists

The Define Include / Exclude Lists fields on the Setup DB2 Sysplex Watchlist screen are described below.

Activate Includes

Required field. The installation default is N, disabled.

Specify if the include lists should be used for processing.

Enter Y for Yes or N for No. Please see 'Include and Exclude Lists' on page 141 for more information.

Activate Excludes

Required field. The installation default is N, disabled.

Specify if the exclude lists should be used for processing.

Enter Y for Yes or N for No. Please see 'Include and Exclude Lists' on page 141 for more information.

Setting up the DB2 Subsystem(s) Watchlist

When the **DB2 Sysplex Watchlist** has been defined, you can define the DB2 System(s) Watchlist that require a different setup as the DB2 Plex.

Perform these steps:

1. Select **Option 5** (**DB2**) on the Administration Menu to define the DB2 Watchlists. The Watchlist DB2 screen appears.
2. Select **Option 2** (**DB2 Sub System**) on the Watchlist DB2 screen to define the DB2 System(s) Watchlist.
3. If you have not specified a Sysplex, the DB2 Subsys Watchlist selection screen appears. Select a DB2 System from the list and press Enter or type in 'ADD' at the command line to define a new DB2 System Watchlist.
4. The Setup DB2 Subsys Watchlist screen appears. The threshold values based on DB2 System can be defined on this screen.

Note All DB2 System(s) for which a Watchlist is not be defined, will be processed with options from the Watchlist definitions of the DB2 Sysplex.

Fields on Setup DB2 Subsys Watchlist screen

```
AOZP6420 --------------- Setup DB2 Subsystem Watchlist -----------------------
Command ===>

  DB2 Sysplex Name  : DB2PROD
  DB2 System        : DB2P
  Description       : DB2 WATCHLIST FOR SSID DB2P
  Online Processing                Batch Processing
  Elapsed Time      : 1000  msec   Elapsed Time      :   30  min
  CPU Time          :  100  msec   CPU Time          :   10  min
  Number SQL Calls  :     1000     Number SQL Calls  :  100000
  Number Get Pages  :     1000     Number Get Pages  :  100000
  Number Sync Reads :      800     Number Sync Reads :    2500
  SQL Calls per Sec :       50     SQL Calls per Min :    1000
  Get Pages per Sec :       40     Get Pages per Min :    5000
  Sync Read per Sec :       15     Sync Read per Min :     150

  Include Abends    : Y  Y es, N o  Build Abend List  : Y   Y es, N o
  Email Address     :
  Define Include/Exclude Lists
  Activate Includes : N  Y es, N o
  Activate Excludes : N  Y es, N o
                      _  1 Include by Plan Name     3 Exclude by Plan Name
                         2 Include by Job Name      4 Exclude by Job Name
```

Basic watchlist definitions

The fields on the Setup DB2 Subsys Watchlist screen are described below.

DB2 Sysplex Name

The name of the DB2 Sysplex where the DB2 System is assigned to.

DB2 System Name

Required field. The name of the DB2 System where the options will apply.

Description

Provide a meaningful description for this DB2 System.

Watchlist Definition - Online Processing

The Watchlist Definition fields on the Setup DB2 Subsys Watchlist screen are described below.

Elapsed Time

Required field. The installation default is 1.000 milli seconds.

Enter a number between 0 - 9999 milliseconds. If you enter 0, this option is deactivated and no selection is made on elapsed time.

CPU Time

Required field. The installation default is 100 milli seconds.

Enter a number between 0 - 9999 milliseconds. If you enter 0, this option is deactivated and no selection is made on CPU time.

Number SQL Calls

Required field. The installation default is 1.000 SQL calls.

Enter a number between 0 - 99999999 SQL Calls. If you enter 0, this option is deactivated and no selection is made on SQL Calls.

All SQL Calls are accumulated and checked against the selection value.

Number Get Pages

Required field. The installation default is 1.000 Get Pages.

Enter a number between 0 - 99999999 Get Pages. If you enter 0, this option is deactivated and no selection is made on Get Pages.

Number Sync Reads

Required field. The installation default is 0 Sync Reads, disabled.

Enter a number between 0 - 99999999 Sync Reads. If you enter 0, this option is deactivated and no selection is made on Sync Reads.

Ratio selection criteria

From the performance perspective, ratios are a better way to filter candidates for IBM Application Performance Analyzer.

SQL Calls per Sec

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 SQL Calls per Sec. If you enter 0, this option is deactivated and no selection is made on SQL Calls per Sec. This ratio will select transactions independent of the absolute number of SQL calls.

- Assume that you have specified 1.250 absolute SQL Calls and 150 ratio SQL Calls per Sec.
- This combination will select all DB2 Online transactions which consumed more than 1.250 absolute SQL Calls **or** consumed more than 150 SQL Calls per Second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on SQL Calls.

Get Pages per Sec

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 Get Pages per Sec. If you enter 0, this option is deactivated and no selection is made on Get Pages per Sec. This ratio will select transactions independent of the absolute number of Get Pages.

- Assume that you have specified 100.000 absolute Get Pages and 250 ratio Get Pages per Sec.
- This combination will select all DB2 Online transactions which consumed more than 100.000 absolute Get Pages **or** consumed more than 250 Get Pages per Second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on SQL Get Pages.

Sync Reads per Sec

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 Sync Reads per Sec. If you enter 0, this option is deactivated and no selection is made on Sync Reads per Sec. This ratio will select transactions independent of the absolute number of Sync Reads.

- Assume that you have specified 250.000 absolute Sync Reads and 500 ratio Sync Reads per Sec.
- This combination will select all DB2 Online transactions which consumed more than 250.000 absolute Sync Reads **or** consumed more than 500 Sync Reads per Second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on Sync Reads.

Watchlist Definition - Batch Processing

The Watchlist Definition fields on the Setup DB2 Subsys Watchlist screen are described below.

Elapsed Time

Required field. The installation default is 30 minutes.

Enter a number between 0 - 9999 minutes. If you enter 0, this option is deactivated and no selection is made on elapsed time.

CPU Time

Required field. The installation default is 10 minutes.

Enter a number between 0 - 9999 minutes. If you enter 0, this option is deactivated and no selection is made on CPU time.

Number SQL Calls

Required field. The installation default is 100.000 SQL calls.

Enter a number between 0 - 99999999 SQL Calls. If you enter 0, this option is deactivated and no selection is made on SQL Calls.

Number Get Pages

Required field. The installation default is 100.000 Get Pages.

Enter a number between 0 - 99999999 Get Pages. If you enter 0, this option is deactivated and no selection is made on Get Pages.

Number Sync Reads

Required field. The installation default is 0 Sync Reads, disabled.

Enter a number between 0 - 99999999 Sync Reads. If you enter 0, this option is deactivated and no selection is made on Sync Reads.

Ratio selection criteria

From the performance perspective, ratios are a better way to filter candidates for IBM Application Performance Analyzer.

SQL Calls per Sec

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 SQL Calls per Sec. If you enter 0, this option is deactivated and no selection is made on SQL Calls per Sec. This ratio will select batch jobs independent of the absolute number of SQL calls.

- Assume that you have specified 1.250 absolute SQL Calls and 150 ratio SQL Calls per Sec.
- This combination will select all DB2 Online transactions which consumed more than 1.250 absolute SQL Calls **or** consumed more than 150 SQL Calls per Second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on SQL Calls.

Get Pages per Sec

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 Get Pages per Sec. If you enter 0, this option is deactivated and no selection is made on Get Pages per Sec. This ratio will select batch jobs independent of the absolute number of Get Pages.

- Assume that you have specified 100.000 absolute Get Pages and 250 ratio Get Pages per Sec.
- This combination will select all DB2 Online transactions which consumed more than 100.000 absolute Get Pages **or** consumed more than 250 Get Pages per Second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on SQL Get Pages.

Sync Reads per Sec

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 Sync Reads per Sec. If you enter 0, this option is deactivated and no selection is made on Sync Reads per Sec. This ratio will select batch jobs independent of the absolute number of Sync Reads.

- Assume that you have specified 250.000 absolute Sync Reads and 500 ratio Sync Reads per Sec.
- This combination will select all DB2 Online transactions which consumed more than 250.000 absolute Sync Reads **or** consumed more than 500 Sync Reads per Second.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on Sync Reads.

Abend Options

Include Abends

Required field. The installation default is N, disabled.

Specify if abended DB2 calls should be processed. Enter Y for Yes or N for No.

If you select Y, all abended DB2 transactions and batch jobs will be included in the selection process.

Build Abend List

Required field. The installation default is N, disabled.

Specify if an abend list should be build. Enter Y for Yes or N for No.

If you select Y, all abended DB2 jobs or transactions will be stored into a separate DB2 table in the APA Automation Assistant DB2 PDWH independent of the selection criteria.

Email Address

Optional field. The installation default is blank, disabled.

APA Automation Assistant uses this email address to notify about automatic request activations. The email will contain a list of the activated IBM Application Performance Analyzer requests. APA Automation Assistant sends the notification email to this address. Please verify that the setup for the mail server has been done correctly.

Define Include / Exclude Lists

The Define Include / Exclude fields on the Setup DB2 Subsys Watchlist screen are described below.

Activate Includes

Required field. The installation default is N, disabled.

Specify if the include lists should be used for processing.

Enter Y for Yes or N for No. Please see 'Include and Exclude Lists' on page 141 for more information.

Activate Excludes

Required field. The installation default is N, disabled.

Specify if the exclude lists should be used for processing.

Enter Y for Yes or N for No. Please see 'Include and Exclude Lists' on page 141 for more information.

Setting up the IMS Sysplex Watchlist

Perform these steps to setup the Watchlist definitions for IMS:

1. Select **Option 6** (**IMS**) on the Administration Menu to define the IMS Watchlists. The Watchlist IMS screen appears.
2. Select **Option 1** (**IMS Sysplex**).
3. If you did not specify a Sysplex, the IMS Sysplex Watchlist selection screen appears.
   Select an IMS Sysplex from the list and press Enter or
   type in 'ADD' at the command line to define an new IMS Sysplex Watchlist.
4. The Setup IMS Sysplex Watchlist screen appears.
   The threshold values based on IMS Sysplex can be defined on this screen.

Note All IMS Sysplex for which a Watchlist is not be defined, will be processed with options from the default Watchlist definitions $GLOBAL.

Fields on Setup IMS Sysplex Watchlist screen

```
AOZP6510 ---------------- Setup IMS Sysplex Watchlist -------------------------
Command ===>

  IMS Sysplex Name  : IMSPROD_
  z/OS Sysplex Name : $GLOBAL
  Description       : IMSPLEX WATCHLIST FOR IMS PRODUCTION

  Online Message Processing         Batch Message Processing
  Elapsed Time      : 1000  msec    Elapsed Time      :   30  min
  CPU Time          :  100  msec    CPU Time          :   10  min
  Number of DB Calls:     1000      Number of DB Calls:   100000
  DB Calls per TRX  :       45      DB Calls per Min. :     9000

  Abended Trx/BMP   : Y     Y es, N o
  Build Abend List  : Y     Y es, N o
  Keep History      :  300  0-9999 Days
  Email Address     :

  Define Include/Exclude Lists
  Activate Includes : N     Y es, N o
  Activate Excludes : N     Y es, N o
                     _ 1 Include by Program Name      3 Exclude by Program
                       2 Include by Transaction Name  4 Exclude by Transaction
```

Basic watchlist definitions

The Environment fields on the Setup IMS Sysplex Watchlist screen are described below.

IMS Sysplex Name

Required field. The name of the IMS Sysplex where the options will apply.

z/OS Sysplex Name

Required field. The name of the z/OS Sysplex assigned to the IMS Sysplex. If $GLOBAL is specified, the default z/OS Sysplex is used.

Description

Provide a meaningful description for this IMS Sysplex.

Watchlist Definition - Online Message Processing

The Watchlist Definition fields on the Setup IMS Sysplex Watchlist screen are described below.

Elapsed Time per Transaction

Required field. The installation default is 1.000 milliseconds.

Enter a number between 0 - 9999 milliseconds. If you enter 0, this option is deactivated and no selection is made on elapsed time.

CPU Time per Transaction

Required field. The installation default is 100 milliseconds.

Enter a number between 0 - 9999 milliseconds. If you enter 0, this option is deactivated and no selection is made on CPU time.

Number of DB Calls per Transaction

Required field. The installation default is 1.000 DB Calls.

Enter a number between 0 - 99999999 DB Calls. If you enter 0, this option is deactivated and no selection is made on IMS DB Calls.

All types of IMS DB Calls are accumulated to check against the selection criteria.

Ratio selection criteria

From the performance perspective, ratios are a better way to filter candidates for IBM Application Performance Analyzer.

DB Calls per Transaction

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 DB Calls per Sec. If you enter 0, this option is deactivated and no selection is made on DB Calls per TRX. This ratio will select transactions independent of the absolute number of DB calls.

- Assume that you have specified 1.250 absolute DB Calls and 150 DB Calls per TRX.
- This combination will select all IMS Online transactions which consumed more than 1.250 absolute DB Calls **or** consumed more than 150 DB Calls per transaction.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on IMS DB Calls.

Watchlist Definition - Batch Message Processing

The Watchlist Definition fields on the Setup IMS Sysplex Watchlist screen are described below.

Elapsed Time

Required field. The installation default is 30 minutes.

Enter a number between 0 - 9999 minutes. If you enter 0, this option is deactivated and no selection is made on elapsed time.

CPU Time

Required field. The installation default is 10 minutes.

Enter a number between 0 - 9999 minutes. If you enter 0, this option is deactivated and no selection is made on CPU time.

Number of DB Calls

Required field. The installation default is 100.000 DB Calls.

Enter a number between 0 - 99999999 DB Calls. If you enter 0, this option is deactivated and no selection is made on IMS DB Calls.

All types of IMS DB Calls are accumulated to check against the selection criteria.

Ratio selection criteria

From the performance perspective, ratios are a better way to filter candidates for IBM Application Performance Analyzer.

DB Calls per Min

Required field. The installation default is 0, disabled.

Enter a number between 0 - 99999999 DB Calls per Minute. If you enter 0, this option is deactivated and no selection is made on DB Calls per Min. This ratio will select BMPs independent of the absolute number of DB calls.

- Assume that you have specified 50.000 absolute DB Calls and 1.500 ratio DB Calls per Min.
- This combination will select all IMS Batch Message Processing Jobs which consumed more than 50.000 absolute DB Calls **or** consumed more than 1.500 DB Calls per Minute.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on IMS DB Calls.

Abend Options

Abended Trx/BMP

Required field.The installation default is N, disabled.

Specify if abended transactions and BMP's should be processed.
Enter Y for Yes or N for No.

If you select Y, all abended IMS transactions and batch jobs will be included in the selection process.

Build Abend List

Required field. The installation default is N, disabled.

Specify if an abend list should be build. Enter Y for Yes or N for No.

If you select Y, all abended IMS transactions and BMP's will be stored into a separate DB2 table in the APA Automation Assistant DB2 PDWH.

Keep History

Reqired field. The installation default is 180 days.

Specifies how long the Watchlist data will be kept in the DB2 performance data warehouse.

Enter a number between 0 - 9999 days. If you enter 0, the watchlist data will be kept for ever.

Email Address

Optional field. The installation default is blank, disabled.

APA Automation Assistant uses this email address to notify about automatic request activations. The email will contain a list of the activated IBM Application Performance Analyzer requests. APA Automation Assistant sends the notification email to this address. Please verify that the setup for the mail server has been done correctly.

Define Include / Exclude Lists

The Define Include / Exclude Lists fields on the Setup IMS Sysplex Watchlist screen are described below.

Activate Includes

Required field. The installation default is N, disabled.

Specify if the include lists should be used for processing.

Enter Y for Yes or N for No. Please see 'Include and Exclude Lists' on page 141 for more information.

Activate Excludes

Required field. The installation default is N, disabled.

Specify if the exclude lists should be used for processing.

Enter Y for Yes or N for No. Please see 'Include and Exclude Lists' on page 141 for more information.

Setting up the Watchlist IMS System(s)

When the **IMS Sysplex Watchlist** has been defined, you can define the IMS System(s) Watchlist that require a different setup as the IMS Plex.

Perform these steps:

1. Select **Option 6** (**IMS**) on the Administration Menu to define the IMS Watchlists. The Watchlist IMS screen appears.
2. Select **Option 2** (**IMS ID**) on the Watchlist IMS screen to define the IMS System(s) Watchlist.
3. If you did not specify a Sysplex, the IMS ID Watchlist selection screen appears. Select an IMS ID from the list and press Enter or type in 'ADD' at the command line to define an new IMS System Watchlist.
4. The Setup IMS ID Watchlist screen appears. The threshold values based on IMS System can be defined on this screen.

Note All IMS System(s) for which a Watchlist will not be defined, will be processed with options from the Watchlist definitions of the IMS Sysplex where the IMS System(s) belongs to.

Fields on Setup IMS ID WatchList screen

```
AOZP6510 ---------------- Setup IMS Sysplex Watchlist -------------------------
Command ===>

  IMS Sysplex Name  : IMSPROD_
  IMS-ID            : IMS1
  Description       : IMSPLEX WATCHLIST FOR IMS PRODUCTION

  Online Message Processing         Batch Message Processing
  Elapsed Time      : 1000  msec    Elapsed Time      :   30  min
  CPU Time          :  100  msec    CPU Time          :   10  min
  Number of DB Calls:     1000      Number of DB Calls:   100000
  DB Calls per TRX  :       45      DB Calls per Min. :     9000

  Abended Trx/BMP   : Y     Y es, N o
  Build Abend List  : Y     Y es, N o
  Email Address     :

  Define Include/Exclude Lists
  Activate Includes : N     Y es, N o
  Activate Excludes : N     Y es, N o
                      _ 1 Include by Program Name      3 Exclude by Program
                        2 Include by Transaction Name  4 Exclude by Transaction
```

Basic watchlist definitions

The fields on the Setup IMS ID Watchlist screen are described below.

IMS Sysplex Name

The name of the IMS Sysplex where the IMS ID is belonging to.

IMS ID

Required field. The IMS ID of the IMS System where the options will apply.

Description

Provide a meaningful description for this IMS Sysplex.

Watchlist Definition - Online Message Processing

The Watchlist Definition fields on the Setup IMS ID Watchlist screen are described below.

Elapsed Time

Required field. The installation default is 1.000 milliseconds.

Enter a number between 0 - 9999 milliseconds. If you enter 0, this option is deactivated and no selection is made on elapsed time.

CPU Time

Required field. The installation default is100 milliseconds.

Enter a number between 0 - 9999 milliseconds. If you enter 0, this option is deactivated and no selection is made on CPU time.

Number of DB Calls

Required field. The installation default is 1.000 DB Calls.

Enter a number between 0 - 99999999 DB Calls. If you enter 0, this option is deactivated and no selection is made on IMS DB Calls.

All IMS DB Calls are accumulated to check against the selection criteria.

Ratio selection criteria

From the performance perspective, ratios are a better way to filter candidates for IBM Application Performance Analyzer.

DB Calls per TRX

Required field. The installation default is 0 DB Calls per Sec, disabled.

Enter a number between 0 - 99999999 DB Calls per Sec. If you enter 0, this option is deactivated and no selection is made on DB Calls per TRX. This ratio will select transactions independent of the absolute number of DB calls.

Assume that you have specified 1.250 absolute DB Calls and 150 DB Calls per TRX.

- This combination will select all IMS Online transactions which consumed more than 1.250 absolute DB Calls **or** consumed more than 150 DB Calls per transaction.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on IMS DB Calls.

Watchlist Definition - Batch Message Processing

The Watchlist Definition fields on the Setup IMS ID Watchlist screen are described below.

Elapsed Time

Required field. The installation default is 30 minutes.

Enter a number between 0 - 9999 minutes. If you enter 0, this option is deactivated and no selection is made on elapsed time.

CPU Time

Required field. The installation default is 10 minutes.

Enter a number between 0 - 9999 minutes. If you enter 0, this option is deactivated and no selection is made on CPU time.

Number of DB Calls

Required field. The installation default is 100.000 DB Calls.

Enter a number between 0 - 99999999 DB Calls. If you enter 0, this option is deactivated and no selection is made on IMS DB Calls.

All types of IMS DB Calls are accumulated to check against the selection criteria.

Ratio selection criteria

From the performance perspective, ratios are a better way to filter candidates for IBM Application Performance Analyzer.

DB Calls per Min

Required field. If omitted, the installation default (0 DB Calls per Sec) is used.

Enter a number between 0 - 99999999 DB Calls per Minute. If you enter 0, this option is deactivated and no selection is made on DB Calls per Min. This ratio will select BMPs independent of the absolute number of DB calls.

- Assume that you have specified 50.000 absolute DB Calls and 1.500 ratio DB Calls per Min.
- This combination will select all IMS Batch Message Processing Jobs which consumed more than 50.000 absolute DB Calls **or** consumed more than 1.500 DB Calls per Minute.
- With this ratio you can more easily discover candidates for IBM Application Performance Analyzer monitoring based on IMS DB Calls.

Abend Options

Abended Trx/BMP

Required field. The installation default is N, disabled.

Specify if abended transactions and BMP's should be processed.
Enter Y for Yes or N for No.

If you select Y, all abended IMS transactions and batch jobs will be included in the selection process.

Build Abend List

Required field. The installation default is N, disabled.

Specify if an abend list should be build. Enter Y for Yes or N for No.

If you select Y, all abended IMS transactions and BMP's will be stored into a separate DB2 table in the APA Automation Assistant DB2 PDWH.

Reqired field. The installation default is 180 days.

Specifies how long the Watchlist data will be kept in the DB2 performance data warehouse.

Email Address

Optional field. The installation default is blank, disabled.

APA Automation Assistant uses this email address to notify about automatic request activations. The email will contain a list of the activated IBM Application Performance Analyzer requests. APA Automation Assistant sends the notification email to this address. Please verify that the setup for the mail server has been done correctly.

Define Include / Exclude Lists

The Define Include / Exclude Lists fields on the Setup IMS ID Watchlist screen are described below.

Activate Includes

Required field. The installation default is N, disabled.

Enter Y for Yes or N for No. Specify Y only if the include lists should be used for processing.

Please see 'Include and Exclude Lists' on page 141 for more information.

Activate Excludes

Required field. The installation default is N, disabled.

Enter Y for Yes or N for No. Specify Y only if the exclude lists should be used for processing.

Please see 'Include and Exclude Lists' on page 141 for more information.

Setting up the Sysplex for MQSeries Watchlist

Perform these steps to setup the Watchlist definitions for MQSeries:

1. Select **Option 7** (**MQSeries**) on the Administration Menu to define the MQSeries Watchlists. The Watchlist MQSeries screen appears.
2. Select **Option 1** (**MQSeries Sysplex**).
3. If you did not specify a Sysplex, the MQSeries Sysplex Watchlist selection screen appears.
   Select an MQSeries Sysplex from the list and press Enter or type in 'ADD' at the command line to define a new MQSeries Sysplex Watchlist.
4. The Setup MQSeries Sysplex Watchlist screen appears.
   The threshold values based on MQSeries Sysplex can be defined on this screen.

Note All MQSeries Sysplexes for which a Watchlist is not be defined, will be processed with options from the default Watchlist definitions $GLOBAL.

Fields on Setup MQSeries Sysplex Watchlist screen

```
AOZP6A10 -------------- Setup MQSeries Sysplex Watchlist ----------------------
Command ===>

  MQS Sysplex Name  : $GLOBAL
  z/OS Sysplex Name : $GLOBAL
  Description       : DEFAULT MQS WATCHLIST

  Thresholds
  Elapsed Time        :   30      0-9999 min
  CPU Time            :   10      0-9999 min
  Number MQ Gets/Puts :    10000  0-99999999
  Avg MQ Gets/Puts    :      340  0-99999999
      per second

  Abended Connections : Y     Y es, N o
  Build Abend List    : Y     Y es, N o
  Keep History        :   90  0-9999 Days
  Email Address       :

  Define Include/Exclude Lists
  Activate Includes   : N  Y es, N o
  Activate Excludes   : N  Y es, N o
                        _  1 Include by Job Name
                           2 Exclude by Job Name
```

Basic watchlist definitions

The fields on the Setup MQSeries Sysplex Watchlist screen are described below.

MQS Sysplex Name

Required field. The name of the MQSeries Sysplex where the following options will apply.

z/OS Sysplex Name

Required field. The name of the z/OS Sysplex assigned to the MQSeries Sysplex. If $GLOBAL is specified, the values from the installation defaults will be used.

Description

Provide a meaningful description for this MQSeries Sysplex.

Thresholds

The Watchlist Definition fields on the Setup MQSeries Sysplex Watchlist screen are described below.

Elapsed Time

Required field. The installation default is 30 minutes.

Enter a number between 0 - 9999 minutes. If you enter 0, this option is deactivated and no selection is made on elapsed time.

CPU Time

Required field. The installation default is 10 minutes.

Enter a number between 0 - 9999 minutes. If you enter 0, this option is deactivated and no selection is made on CPU time.

Number MQ Gets/Puts

Required field. The installation default is10.000 MQ Gets/Puts.

Enter a number between 0 - 99999999 reflecting the threshold for the total count of MQSeries gets and puts. If you enter 0, this option is deactivated and no selection is made on MQ Gets/Puts.

All types of MQSeries gets and puts are accumulated to match the selection criteria.

Ratio selection criteria

From the performance perspective, ratios are a better way to filter candidates for IBM Application Performance Analyzer.

Avg MQ Gets/Puts per second

Required field. The installation default is 0 MQ Gets/Puts per second,disabled.

Enter a number between 0 - 99999999 reflecting the threshold for the average count of MQSeries gets and puts per second. If you enter 0, this option is deactivated and no selection is made on MQ Gets/Puts per second.

Abend Options

Abended Connections

Required field. The installation default is N, disabled.

Specify if abended connections should be processed.
Enter Y for Yes or N for No.

If you select Y, all abended connections will be included in the selection process.

Build Abend List

Required field. The installation default is N, disabled.

Specify if an abend list should be build. Enter Y for Yes or N for No.

If you select Y, all abended MQSeries connections will be stored into a separate DB2 table in the APA Automation Assistant DB2 PDWH.

Keep History

Reqired field. The installation default is 180 days.

Specifies how long the Watchlist data will be kept in the DB2 performance data warehouse.

Enter a number between 0 - 9999 days. If you enter 0, the watchlist data will be kept for ever.

Email Address

Optional field. The installation default is blank, disabled.

APA Automation Assistant uses this email address to notify about automatic request activations. The email will contain a list of the activated IBM Application Performance Analyzer requests. APA Automation Assistant sends the notification email to this address. Please verify that the setup for the mail server has been done correctly.

Define Include / Exclude Lists

The Define Include / Exclude Lists fields on the Setup MQSeries Sysplex Watchlist screen are described below.

Activate Includes

Required field. The installation default is N, disabled.

Specify if the include lists should be used for processing.

Enter Y for Yes or N for No. Please see 'Include and Exclude Lists' on page 141 for more information.

Activate Excludes

Required field. The installation default is N, disabled.

Specify if the exclude lists should be used for processing.

Enter Y for Yes or N for No. Please see 'Include and Exclude Lists' on page 141 for more information.

Setting up the Watchlist MQSeries System(s)

When the **MQS Sysplex Watchlist** has been defined, you can define the MQS System(s) Watchlist that require a different setup as the MQS sysplex.

Perform these steps:

1. Select **Option 7** (**MQSeries**) on the Administration Menu to define the MQS Watchlists.
2. Select **Option 2** (**MQSeries SSID**) on the Watchlist screen to define the MQSeries System(s) Watchlist.
3. If you did not specify a Sysplex, the MQSeries SSID Watchlist Selection screen appears. Select an MQSeries SSID from the list and press Enter or type in 'ADD' at the command line to define an new MQSeries System Watchlist.
4. The Setup MQSeries SSID Watchlist screen appears.
   The threshold values based on MQSeries System can be defined on this screen.

Note All MQSeries System(s) for which a Watchlist is not be defined, will be processed with options from the Watchlist definitions of the MQSeries Sysplex where the MQSeries System(s) belongs to.

Fields on Setup MQSeries SSID WatchList screen

```
AOZP6A2O --------------- Setup MQSeries SSID Watchlist -----------------------
Command ===>

  MQS Sysplex Name  : MQSPLEXD
  MQS SSID          : CSQ1____
  Description       : MQS WATCHLIST FOR SSID CSQ1

  Thresholds
  Elapsed Time        :   20      0-9999 min
  CPU Time            :    5      0-9999 min
  Number MQ Gets/Puts :     6000  0-99999999
  Avg MQ Gets/Puts    :      120  0-99999999
      per second

  Abended Connections : N     Y es, N o
  Build Abend List    : N     Y es, N o
  Email Address       :

  Define Include/Exclude Lists
  Activate Includes   : N  Y es, N o
  Activate Excludes   : N  Y es, N o
                        _  1 Include by Job Name
                           2 Exclude by Job Name
```

Basic watchlist definitions

The Environment fields on the Setup MQSeries Sysplex Watchlist screen are described below.

MQS Sysplex Name

The name of the MQSeries Sysplex where the options will apply.

MQS SSID

The name of the MQSeries SSID where the options will apply.

z/OS Sysplex Name

Required field. The name of the z/OS Sysplex assigned to the MQSeries Sysplex. If $GLOBAL is specified, the values from the installation defaults apply.

Description

Provide a meaningful description for this MQSeries Sysplex.

Thresholds

The Watchlist Definition fields on the Setup MQSeries Sysplex Watchlist screen are described below.

Elapsed Time

Required field. The installation default is 30 minutes.

Enter a number between 0 - 9999 minutes. If you enter 0, this option is deactivated and no selection is made on elapsed time.

CPU Time

Required field. The installation default is 10 minutes.

Enter a number between 0 - 9999 minutes. If you enter 0, this option is deactivated and no selection is made on CPU time.

Number MQ Gets/Puts

Required field. The installation default is 10.000 MQ Gets/Puts.

Enter a number between 0 - 99999999 reflecting the threshold for the total count of MQSeries gets and puts. If you enter 0, this option is deactivated and no selection is made on MQ Gets/Puts.

All types of MQSeries gets and puts are accumulated to match the selection criteria.

Ratio selection criteria

From the performance perspective, ratios are a better way to filter candidates for IBM Application Performance Analyzer.

Avg MQ Gets/Puts per second

Required field. The installation default is 0 MQ Gets/Puts per second, disabled.

Enter a number between 0 - 99999999 reflecting the threshold for the average count of MQSeries gets and puts per second. If you enter 0, this option is deactivated and no selection is made on MQ Gets/Puts per second.

Abend Options

Abended Connections

Required field. The installation default is N, disabled.

Specify if abended connections should be processed.
Enter Y for Yes or N for No.

If you select Y, all abended connections will be included in the selection process.

Build Abend List

Required field. The installation default is N, disabled.

Specify if an abend list should be build. Enter Y for Yes or N for No.

If you select Y, all abended MQSeries connections will be stored into a separate DB2 table in the APA Automation Assistant DB2 PDWH.

Email Address

Optional field. The installation default is blank, disabled.

APA Automation Assistant uses this email address to notify about automatic request activations. The email will contain a list of the activated IBM Application Performance Analyzer requests. APA Automation Assistant sends the notification email to this address. Please verify that the setup for the mail server has been done correctly.

Define Include / Exclude Lists

The Define Include / Exclude Lists fields on the Setup MQSeries Sysplex Watchlist screen are described below.

Activate Includes

Required field. The installation default is N, disabled.

Specify if the include lists should be used for processing.

Enter Y for Yes or N for No. Please see 'Include and Exclude Lists' on page 141 for more information.

Activate Excludes

Required field. The installation default is N, disabled.

Specify if the exclude lists should be used for processing.

Enter Y for Yes or N for No. Please see 'Include and Exclude Lists' on page 141 for more information.

Setting up the Watchlist Loadlibs

Application Performance Analyzer Automation Assistant can monitor loadlibs to track program changes. These Loadlib watchlists are defined on sysplex level.

Perform these steps:

1. Select **Option 8** (**Loadlibs**) on the Administration menu to define load libraries to monitor for changed programs.
2. The Loadlib Selection List screen appears.
3. Select a watchlist from the list and press Enter or type in 'ADD' at the command line to define a new loadlib Watchlist. A list of all defined load libraries is displayed.
4. Select a loadlib from the list and press Enter or type in 'ADD' at the command line to define a new loadlib.

```
AOZP6600 ------------------ Setup Loadlib Watchlist ---------- Row 1 to 1 of 1
COMMAND ===>                                                  SCROLL ===> PAGE

  Sysplex Name    : ZOSPLEX
  Keep History    :  130     0-9999 Days
  Email Address   :

  Primary Commands: ADD
  Line Commands   : S(elect) D(elete)

  Dataset Name                          Act Description
------------------------------------------------------------------------------
_ IMS910.PGMLIB                          Y  IMS PRODUCTION PGMLIB
****************************** Bottom of data ********************************
```

5. A popup window will appear to define the loadlib.

```
AOZP6600 ------------------ Setup Loadlib Watchlist -----------------------
COMMAND ===> ADD                                             SCROLL ===> PAGE

  Sysplex Name    : ZOSPLEX
  Keep History    :  130     0-9999 Days
  Email Address   :

  Primary Commands: ADD
  Line Commands   : S(elect) D(elete)
       EsssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssN
  Data ! AOZP6601         Add Loadlib                                    !
------ !                                                                ! ------
****** !  Dataset Name :  IMS910.PGMLIB                                 ! ******
       !  Description  :  IMS Production PGMLIB                         !
       !  Activate     :  Y      Y es, N o                              !
       sssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssssss
```

Add / Modify Loadlib definition

The Add Loadlib fields on the Loadlib Definitions screen are described below.

Dataset Name

The name of the load library. APA Automation Assistant does not check if this load library exists on the system. The check will be done at runtime.

Act (Activate)

Optional field. If omitted, the default (Y) is used.

Specify if this load library should be monitored. Enter Y for Yes or N for No.

NO will temporarily disable it without the need to remove the definition.

Description

Provide a meaningful description for this load library.

Setting up the IBM Application Performance Analyzer Sysplex Request Parameter

APA Automation Assistant can connect to IBM Application Performance Analyzer to activate observation requests. This can be done via the batch utility AOZBACT0 or the ISPF interface. These default values will be used to activate the observation requests.

Please see Batch Interface Commands in the IBM Application Performance Analyzer User Guide for more information.

Perform these steps:

1. Select **Option 9** (**Sysplex**) on the Administration menu to define the IBM Application Performance Analyzer Request Parameter.
2. If you did not specify a Sysplex, the IBM Application Performance Analyzer Defaults Selection screen appears. Select a Sysplex from the list or type **ADD** in the command line for creating a new entry and press Enter.
3. The Setup IBM Application Performance Analyzer Sysplex Defaults screen appears.

Fields on Setup IBM Application Performance Analyzer Sysplex Defaults screen

```
AOZP670O ------------ Setup AP Analyzer Sysplex Defaults --------------------
Command ===>

    Sysplex Name       : ZOSPLEX
    Description        : Application Performance Analyzer REQUEST

    AP Analyzer Defaults
    Target System      : SYS1       Lpar name or '*' (any sysplex member)
    Job Active         : N          Y es, N o
    Duration           :      120   0-99999999 Seconds
    Samples            :    12000   0-99999999
    Delay Sampling     :        0   0-99999999 Seconds
    Run To Step End    : N          Y es, N o
    Expiration         :    0       0-9999 Days, 0 = Forever
    Notify User        : SYSUID     SYSUID = Substitute TSO Userid
    Features           :                 CICS, DB2, DB2+, IMS, IMS+, MQS
    Additional Parms   :
```

Basic watchlist definitions

The fields on the Setup IBM Application Performance Analyzer Sysplex Defaults screen are described below.

Sysplex Name

Required field. The name of the Sysplex where the options will apply.

Description

Provide a meaningful description for this IBM Application Performance Analyzer Sysplex.

AP Analyzer Defaults

The fields on the Setup IBM Application Performance Analyzer Sysplex Defaults screen are described below.

Target System

Optional field.

Specifies a target system within a Sysplex. IBM Application Performance Analyzer will setup the IBM Application Performance Analyzer requests on this system. A value '*' will activate the request on any member of the sysplex.

This parm is only valid when AP Analyzer has been setup to run in sysplex mode.

Job Active

Required field.

Specify Y if the job is active, or N if the job is not active. The default is: N.

Duration

Required field. The default duration is 120 seconds.

Specifies the duration of the measurement in seconds.

Samples

Required field.The default number of samples is12.000.

Specifies the number of samples to take during the measurement.

Delay Sampling

Required field. The default delay is 0, no delay.

This indicates that sampling should be delayed for the specified amount of time (in seconds). After the target job step starts, IBM Application Performance Analyzer will delay the start of the measurement for the number of seconds specified.

Run To Step End

Required field. The default is N.

Specify YES to indicate that the measurement should continue to run until the job step has completed, even if the target number of observations has been reached. Enter Y for Yes or N for No.

Expiration

Required field. The installation default is 0.

Specifies the number of days the measurement data for this observation request should be retained on IBM Application Performance Analyzer before being automatically deleted. To keep the measurement data for ever, use Expiration = 0.

Notify User

Optional field.

Specifies a TSO userid to notify when the measurement ends. Application Performance Analyzer Automation Assistant will use this option during building the IBM Application Performance Analyzer requests. The default is: SYSUID, this will substitute to the TSO userid.

Features

Optional field.

Specifies the data extractors, if any, that need to be turned on for this measurement. The data extractor values are: CICS, DB2, DB2+, IMS, IMS+, MQS.

A list of data extractors is separated by commas, for example: CICS,DB2.

Additional Parms

Optional field.

Specifies additional parameters that can not be selected via the panel. Please see Batch Interface Commands in the IBM Application Performance Analyzer User Guide for more information.

Setting up the IBM Application Performance Analyzer Lpar Request Parameter

When the **IBM Application Performance Analyzer Sysplex Request Parameter** has been defined, you can define the Lpars that require a different setup.

Perform these steps:

1. Select **Option A** (**Lpar**) on the Administration menu to define IBM Application Performance Analyzer Lpar Request Parameter.
2. If you have not specified a Sysplex, the IBM Application Performance Analyzer Defaults Selection screen appears. Select a Lpar from the list or type **ADD** in the command line for creating a new entry and press Enter.
3. The Setup IBM Application Performance Analyzer Lpar Defaults screen appears.

Fields on Setup IBM Application Performance Analyzer Lpar Defaults screen

```
AOZP6800 -------------- Setup AP Analyzer Lpar Defaults ----------------------
Command ===>
    Sysplex Name      : ZOSPLEX
    Lpar Name         : SYS3
    Description       : AP Analyzer REQUEST FOR LPAR SYS3

    AP Analyzer Defaults
    Target System     : SYS3       Lpar name or '*' (any sysplex member)
    Job Active        : Y          Y es, N o
    Duration          :       90   0-99999999 Seconds
    Samples           :    18000   0-99999999
    Delay Sampling    :        0   0-99999999 Seconds
    Run To Step End   : Y          Y es, N o
    Keep Measurement  :   20       0-9999 Days, 0 = Forever
    Notify User       : SYSUID     SYSUID = Substitute TSO Userid
    Features          : CICS,DB2+,IMS+     CICS, DB2, DB2+, IMS, IMS+, MQS
    Additional Parms  :
```

Basic watchlist definitions

The fields on the Setup IBM Application Performance Analyzer Lpar Defaults screen are described below.

Sysplex Name

The name of the Sysplex to which this lpar belongs.

Lpar Name

Required field. The name of the Lpar where the options will apply.

Description

Provide a meaningful description for this IBM Application Performance Analyzer Lpar.

AP Analyzer Defaults

The fields on the Setup IBM Application Performance Analyzer Lpar Defaults screen are described below.

Target System

Optional field.

IBM Application Performance Analyzer will setup the IBM Application Performance Analyzer requests on this system. A value of '*' will activate the request on any member of the sysplex.

Job Active

Required field.

Specify Y if the job is active, or N if the job is not active. The default is: N.

Duration

Required field. The default duration is 120 seconds.

Specifies the duration of the measurement in seconds.

Samples

Required field. The default number of samples is12.000.

Specifies the number of samples to take during the measurement.

Delay Sampling

Required field. The default delay is 0.

This indicates that sampling should be delayed for the specified amount of time (in seconds). After the target job step starts, IBM Application Performance Analyzer will delay the start of the measurement for the number of seconds specified.

Run To Step End

Required field. The default is N, no delay.

Specify YES to indicate that the measurement should continue to run until the job step has completed, even if the target number of observations has been reached. Enter Y for Yes or N for No.

Expiration

Required field. The installation default is 0.

Specifies the number of days the measurement data for this observation request should be retained on IBM Application Performance Analyzer before being automatically deleted. To keep the measurement data for ever, use Expiration = 0.

Notify User

Optional field.

Specifies a TSO userid to notify when the measurement ends. Application Performance Analyzer Automation Assistant will setup this option when building the IBM Application Performance Analyzer requests. The default is: SYSUID, this will substitute to the TSO userid.

Features

Optional field.

Specifies the data extractors, if any, that need to be turned on for this measurement. The data extractor values are: CICS, DB2, DB2+, IMS, IMS+ and MQS.

A list of data extractors is separated by commas, for example: CICS,DB2.

Additional Parms

Optional field.

Specifies additional parameters that can not be selected via the panel. Please see Batch Interface Commands in the IBM Application Performance Analyzer User Guide for more information.

CHAPTER 6

Include and Exclude Lists

Optionally, you can define Include and/or Exclude lists for every watchlist.

On every screen where you define the Watchlists (z/OS, CICS, DB2, IMS and MQSeries) you can decide for include and/or exclude lists.

This chapter describes how include and exclude lists works.

Using Include and Exclude list

Include/Exclude lists can be used to include and /or exclude from APA Automation Assistant processing:

- z/OS Program Names
- z/OS Job Names
- CICS Program Names
- CICS Transaction Names
- DB2 Plan Names
- DB2 Job Names
- IMS PSB's (Program Specification Block)
- IMS Transaction Names
- MQSeries Job Names

The Incl. List Active/Excl. List Active feature must be activated before any include or exclude processing will occur.

APA Automation Assistant checks the candidates against the Include/Exclude list. List entries can be generic. An entry of 'ABC*' will include or exclude candidates starting with 'ABC'.

An example of using Include / Exclude Lists example

In this example, assume that you want to filter all z/OS jobs with certain selection criteria, but not jobs which perform daily housekeeping, like backup, image copies, and so on.

You can therefore exclude these jobs by building an exclude list as follows:

```
---------------------------- Jobname Exclude List-------------------------
COMMAND ===> ADD_____________________________________________ SCROLL ===> PAGE

 Primary Commands: ADD
 Line Commands   : S(elect) D(elete)

 Jobname   Description
 ------------------------------------------------------------------------------
         ***************************************************************
  - TMS*  *               Jobname Exclude                               *
  - FDR*  *                                                             *
         * Jobname :     TEST*                                          *
         * Description:  _____________________________________          *
         *                                                             *
         ***************************************************************
```

All jobs that start with *TMS*, *FDR* and *TEST* are excluded, and are not processed by Application Performance Analyzer Automation Assistant.

You can mark an unlimited number of entries for exclusion, although you must be careful when defining exclusion entries like 'A*' or when using similar definitions.

You can also define an unlimited number of entries for inclusion.

Processing Include/Exclude lists

z/OS lists

z/OS Include/Exclude lists are processed in the following order:

- exclude z/OS Program Names
- exclude z/OS Job Names
- include z/OS Program Names
- include z/OS Job Names

CICS lists

CICS Include/Exclude lists are processed in the following order:

- exclude CICS Program Names
- exclude CICS Transaction Names
- include CICS Program Names
- include CICS Transaction Names

DB2 lists

DB2 Include/Exclude lists are processed in the following order:

- exclude DB2 Plan Names
- exclude DB2 Job Names
- include DB2 Plan Names
- include DB2 Job Names

IMS lists

IMS Include/Exclude lists are processed in the following order:

- exclude IMS Program Specification Blocks
- exclude IMS Transaction Names
- include IMS Program Specification Blocks
- include IMS Transaction Names

MQSeries lists

MQSeries Include/Exclude lists are processed in the following order:

- exclude MQSeries Job Names
- include MQSeries Job Names

Types of Include/Exclude

Depending on the APA Automation Assistant watchlist an entry can be a:

- z/OS Program Name
- z/OS Job Name
- CICS Program Name
- CICS Transaction Name
- DB2 Plan Name
- DB2 Job Name
- IMS Program Name
- IMS Transaction Name
- MQSeries Job Name

Each entry can cover more than one element if the entry is generic. A generic entry is indicated by an asterisk (*) , for example:

ABC* represents all elements that begin with "ABC"

AB** represents all elements that begin with "AB"

Only one entry can be included/excluded, and if you specify a new entry, the old entry will not be included or excluded.

If the same entry is entered for include and exclude, the entry will be included.

Mixing Includes/Excludes

An include can be done for job name ABC* and an exclude for ABCD*. This will result in an include or an exclude depending on the name.

A job name of ABCX1234 will be included.

A jobname of ABCD1234 will be excluded. So excludes can override includes when the length of the exclude entry exceeds the length of the include entry.

Note An include list with only one entry 'ABC*' and no exclude list will exclude everything that does not start with ABC*.

CHAPTER 7

Batch processing

For APA Automation Assistant batch processing, sample JCL members are stored in the product library *hlq.SAOZSAMP*.

This chapter describes the

Sample Job flow

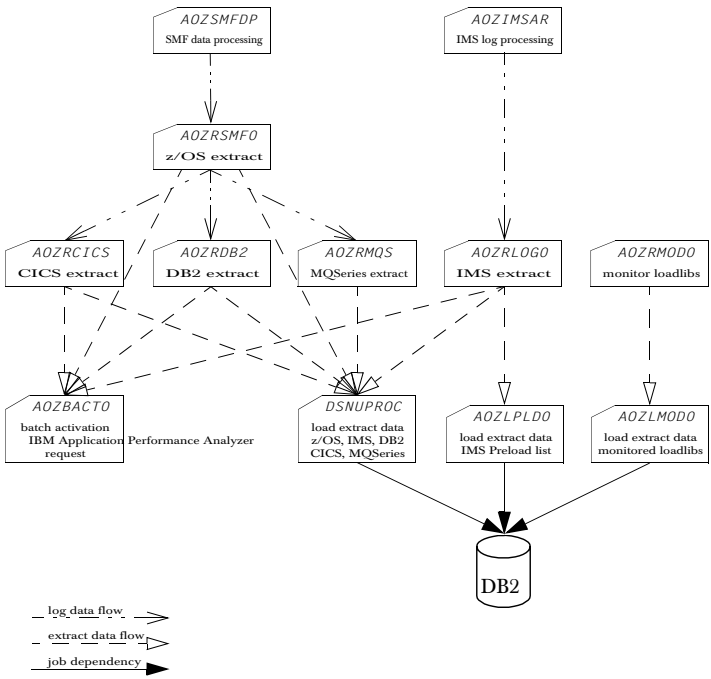
To ensure, that the APA Automation Assistant DB2 Performance Data Warehouse always is filled with actual data, the APA Automation Assistant batch processing should be executed on a daily schedule.

The data extraction jobs requires SMF records and IMS log records as input data. Therefore it's a good method, to include the jobs in your daily SMF data and IMS log record processing.

Please make sure, that the SMF records and IMS log records of all observed systems are available for the APA Automation Assistant batch processing.

The following flowchart illustrates the workflow of the batch jobs:

Job Flowchart



Data Extraction

Several jobs are provided for generating and loading the extract data. These APA Automation Assistant batch jobs should be modified to suit your installation standards for filtering candidates based on your Watchlist criteria.

These jobs covers performance data from SMF records (Type 30, 101, 110 and 116) and IMS log data. The performance data will be analysed and stored to extract data sets.

Following data extraction jobs are available:

- *AOZRSMF0* 'JCL for generating z/OS extract data' on page 148
- *AOZRCICS* 'JCL for generating CICS extract data' on page 151
- *AOZRDB2* 'JCL for generating DB2 extract data' on page 153
- *AOZRLOG0* 'JCL for generating IMS extract data' on page 155
- *AOZRMQS* 'JCL for generating MQSeries extract data' on page 157
- *AOZRMOD0* 'JCL for generating Changed Modules extract data' on page 161
- *AOZEXPDS* 'JCL for generating IBM Application Performance Analyzer observation data' on page 159

JCL for generating z/OS extract data

The best way to process the SMF records for your APA Automation Assistant installation is to add an additional step in the standard SMF record processing. Please make sure that SMF recording is activated for SMF record types 30, 101, 110 and 116.

The SMF records must be unloaded from the system SMF datasets. Only this format can be processed by the APA Automation Assistant extract jobs.

The following JCL shows how to unload a system SMF dataset named *YOUR.SMF.MANX.DATASET*. A sample job is stored as member AOZSMFDP in the *hlq*.SAOZSAMP dataset.

SMF dump job

```
//SMFDUMP   EXEC PGM=IFASMFDP
//SYSPRINT  DD SYSOUT=*
//DUMPIN    DD DISP=SHR,DSN=YOUR.SMF.MANX.DATASET
//DUMPOUT   DD DISP=(,CATLG),
//             DSN=hlq.SMF.RECORDS,
//             VOL=SER=volser,
//             SPACE=(CYL,(100,100),RLSE)
//SYSIN     DD *
  INDD(DUMPIN,OPTIONS(DUMP,TYPE(30,101,110,116))
/*
```

The dataset as defined at DD statement DUMPOUT is now prepared for further processing. The APA Automation Assistant program AOZRSMF0 requires this dataset for generating extract data. A sample job is stored with the member name AOZRSMF0 in the *hlq*.SAOZSAMP dataset. During the installation process all information was setup to your installation standards.

Generate z/OS extract data

```
//AOZRSMF0 EXEC PGM=AOZRSMF0,REGION=0M
//STEPLIB  DD  DISP=SHR,DSN=hlq.SAOZLOAD
//OPTIONS  DD  DISP=SHR,DSN=hlq.OPTIONS
//SMFIN    DD  DISP=SHR,DSN=hlq.SMF.RECORDS
//EXTRACT  DD  DISP=(,CATLG),DSN=hlq.SMF.EXTRACT,
//             UNIT=SYSALLDA,SPACE=(CYL,(5,3),RLSE),BLKSIZE=0
//ABENDLST DD  DISP=(,CATLG),DSN=hlq.SMF.ABENDLST,
//             UNIT=SYSALLDA,SPACE=(CYL,(2,1),RLSE),BLKSIZE=0
//DB2OUT   DD  DISP=(,CATLG),DSN=hlq.SMF.DB2OUT,
//             UNIT=SYSALLDA,SPACE=(CYL,(2,1),RLSE),BLKSIZE=0
//CICSOUT  DD  DISP=(,CATLG),DSN=hlq.SMF.CICSOUT,
//             UNIT=SYSALLDA,SPACE=(CYL,(2,1),RLSE),BLKSIZE=0
//MQSOUT   DD  DISP=(,CATLG),DSN=hlq.SMF.MQSOUT,
//             UNIT=SYSALLDA,SPACE=(CYL,(2,1),RLSE),BLKSIZE=0
//SYSPRINT DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//SYSIN    DD  *
                 SYSPLEX(ZOSPLEX)
/*
```

Please see ‘Control Statements’ on page 168 for detailed descriptions of the control statements (ddname SYSIN).

DD statements generate z/OS extract data

- STEPLIB - the load library containing APA Automation Assistant components. This can be omitted if APA Automation Assistant is installed in a linklist library.
- OPTIONS - the APA Automation Assistant VSAM KSDS dataset where your options and thresholds are stored. This DD statement is required.
- SMFIN - the input dataset for AOZRSMF0 which must point to your SMF records to be processed. This DD statement is required.
- EXTRACT - output file of APA Automation Assistant z/OS candidates. This DD statement is required.
- DB2OUT - output file of filtered DB2 account data records. This DD statement is required.
- CICSOUT - output file of filtered CICS performance data records. This DD statement is required.
- MQSOUT - output file of filtered MQSeries account data records. This DD statement is required.
- ABENDLST - output file of APA Automation Assistant abended z/OS jobs. This file is filled when you specified "Build Abend List = Y" in your watchlist definitions for z/OS. This DD statement is required.
- SYSPRINT - output file for error and informational message. This DD statement is required.

- SYSUDUMP - output file for dumps. This DD statement is optional and can be omitted.
- SYSIN - AOZRSMF0 control statements. This DD statement is optional and can be omitted.

Load z/OS extract data

Please see chapter „Extract Data Loading“ for further processing.

JCL for generating CICS extract data

The best way to process the CICS account records for your APA Automation Assistant installation is to execute this job after job AOZRSMF0 and using the data set *hlq*.SMF.CICSOUT as input.

Another option is to add this job as an additional step to the standard SMF record processing. In this case, the SMF data has to be used as input.

Please make sure that the monitor is activated on CICS for generating CICS performance data. That means, at the CICS start up parameter file, the parameter 'MN', 'MNEXC' and 'MNPER' have to be set to 'ON'.

The following example illustrates JCL and control statements for AOZRCICS which batch processes CICS monitor performance records. A sample job is stored with the member name AOZRCICS in the *hlq*.SAOZSAMP dataset. During the installation process all information was setup to your installation standards.

Generate CICS extract data

```
//AOZRCICS EXEC PGM=AOZRCICS,REGION=0M
//STEPLIB  DD  DISP=SHR,DSN=hlq.SAOZLOAD
//OPTIONS  DD  DISP=SHR,DSN=hlq.OPTIONS
//CICSLOG  DD  DISP=SHR,DSN=hlq.CICSLOG.RECORDS
//EXTRACT  DD  DISP=(,CATLG),DSN=hlq.CICS.EXTRACT,
//             UNIT=SYSALLDA,SPACE=(CYL,(5,3),RLSE),BLKSIZE=0
//ABENDLST DD  DISP=(,CATLG),DSN=hlq.CICS.ABENDLST,
//             UNIT=SYSALLDA,SPACE=(CYL,(2,1),RLSE),BLKSIZE=0
//SYSUDUMP DD  SYSOUT=*
//SYSPRINT DD  SYSOUT=*
//SYSOUT   DD  SYSOUT=*
//SYSIN    DD  *
                 CICSPLEX(CICSPLEX)
/*
```

Please see 'Control Statements' on page 168 for detailed descriptions of the control statements (ddname SYSIN).

DD statements generate CICS extract data

- STEPLIB - the load library containing APA Assistant components. This can be omitted if APA Automation Assistant is installed in a linklist library.
- OPTIONS - the APA Automation Assistant VSAM KSDS dataset where your options and thresholds are stored. This DD statement is required.
- CICSLOG - the input dataset for AOZRCICS which must point to the dataset *hlq*.SMF.CICSOUT or to your SMF records to be processed. This DD statement is required.
- EXTRACT - output file of APA Automation Assistant CICS candidates. This DD statement is required.

- ABENDLST - output file of APA Automation Assistant abended CICS transactions. This file is filled when you specified "Build Abend List = Y" in your watchlist definitions for CICS. This DD statement is required.
- SYSPRINT - output file for error and informational message. This DD statement is required.
- SYSOUT - output file for the sort statistics. This DD statement is required.
- SYSUDUMP - output file for dumps. This DD statement is optional and can be omitted.
- SYSIN - AOZRCICS control statements. This DD statement is optional and can be omitted.

Load CICS extract data

Please see chapter „Extract Data Loading“ for further processing.

JCL for generating DB2 extract data

The best way to process the DB2 account records for your APA Automation Assistant installation is to execute this job after job AOZRSMF0 and using the data set *hlq*.SMF.DB2OUT as input.

Another option is to add this job as an additional step to the standard SMF record processing. In this case, the SMF data has to be used as input.

Please make sure that the DB2 trace is enabled to account for data classes 1, 2 and 3. The destination for the DB2 trace must be SMF.

The following example illustrates JCL and control statements for AOZRDB2 which batch processes DB2 account records. A sample job is stored with the member name AOZRDB2 in the *hlq*.SAOZSAMP dataset. During the installation process all information was setup to your installation standards.

Generate DB2 extract data

```
//AOZRDB2  EXEC PGM=AOZRDB2,REGION=0M
//STEPLIB  DD  DISP=SHR,DSN=hlq.SAOZLOAD
//OPTIONS  DD  DISP=SHR,DSN=hlq.OPTIONS
//DB2LOG   DD  DISP=SHR,DSN=hlq.DB2LOG.RECORDS
//EXTRACT  DD  DISP=(,CATLG),DSN=hlq.DB2.EXTRACT,
//             UNIT=SYSALLDA,SPACE=(CYL,(5,3),RLSE),BLKSIZE=0
//ABENDLST DD  DISP=(,CATLG),DSN=hlq.DB2.ABENDLST,
//             UNIT=SYSALLDA,SPACE=(CYL,(2,1),RLSE),BLKSIZE=0
//SYSUDUMP DD  SYSOUT=*
//SYSPRINT DD  SYSOUT=*
//SYSOUT   DD  SYSOUT=*
//SYSIN    DD  *
                 DB2PLEX(DB2PLEX)
/*
```

Please see ‘Control Statements’ on page 168 for detailed descriptions of the control statements (ddname SYSIN).

DD statements generate DB2 extract data

- STEPLIB - the load library containing APA Automation Assistant components. This can be omitted if APA Automation Assistant is installed in a linklist library.
- OPTIONS - the APA Automation Assistant VSAM KSDS dataset where your options and thresholds are stored. This DD statement is required.
- DB2LOG - the input dataset for AOZRDB2 which must point to the dataset *hlq*.SMF.DB2OUT or to your SMF records to be processed. This DD statement is required.
- EXTRACT - output file of APA Automation Assistant DB2 candidates. This DD statement is required.
- ABENDLST - output file of APA Automation Assistant abended DB2 programs. This file is filled when you specified "Build Abend List = Y" in your watchlist definitions for DB2. This DD statement is required.

- SYSPRINT - output file for error and informational message. This DD statement is required.
- SYSOUT - output file for the sort statistics. This DD statement is required.
- SYSUDUMP - output file for dumps. This DD statement is optional and can be omitted.
- SYSIN - AOZRDB2 control statements. This DD statement is optional and can be omitted.

Load DB2 extract data

Please see chapter „Extract Data Loading“ for further processing.

JCL for generating IMS extract data

The best way to process IMS log records for your APA Automation Assistant installation is to add additional control statements to the IMS archive utility DFSUARC0 for example, your IMS archive job.

The following sample job is stored as member AOZIMSAR in the *hlq*.SAOZSAMP dataset.

IMS archive job

```
//IMSARCH  EXEC PGM=DFSUARC0
//LOGO708  DD  DISP=(,CATLG),DSN=hlq.IMS.LOGREC,
//             UNIT=SYSALLDA,SPACE=(CYL,(5,3),RLSE),
//             RECFM=VB,LRECL=22524,BLKSIZE=22528
//SYSIN    DD  *
COPY DDNOUT1(LOGO708) -
     RECORD(OFFSET(5) FLDTYP(X) VALUE(07) FLDLEN(1) COND(E)) -
     RECORD(OFFSET(5) FLDTYP(X) VALUE(08) FLDLEN(1) COND(E))
/*
```

Now you are prepared to use the following JCL which illustrates the use of the APA Automation Assistant program AOZRLOG0. A sample job is stored with the member name AOZRLOG0 in the *hlq*.SAOZSAMP dataset. During the installation process all information was setup to your installation standards.

Generate IMS extract data

```
//AOZRLOG0 EXEC PGM=AOZRLOG0,REGION=0M
//STEPLIB  DD  DISP=SHR,DSN=hlq.SAOZLOAD
//OPTIONS  DD  DISP=SHR,DSN=hlq.OPTIONS
//IMSLOG   DD  DISP=SHR,DSN=hlq.IMSLOG.RECORDS
//EXTRACT  DD  DISP=(,CATLG),DSN=hlq.IMS.EXTRACT,
//             UNIT=SYSALLDA,SPACE=(CYL,(5,3),RLSE),BLKSIZE=0
//BMP      DD  DISP=(,CATLG),DSN=hlq.IMS.BMP,
//             UNIT=SYSALLDA,SPACE=(CYL,(5,3),RLSE),BLKSIZE=0
//ABENDLST DD  DISP=(,CATLG),DSN=hlq.IMS.ABENDLST,
//             UNIT=SYSALLDA,SPACE=(CYL,(2,1),RLSE),BLKSIZE=0
//PRELOAD  DD  DISP=(,CATLG),DSN=hlq.IMS.PRELOAD,
//             UNIT=SYSALLDA,SPACE=(CYL,(2,1),RLSE),BLKSIZE=0
//SYSPRINT DD  SYSOUT=*
//SYSOUT   DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//SYSIN    DD  *
                   IMSPLEX(IMSPLEX)
/*
```

Please see ‘Control Statements’ on page 168 for detailed descriptions of the control statements (ddname SYSIN).

DD statements generate IMS extract data

- STEPLIB - the load library containing APA Automation Assistant components. This can be omitted if APA Automation Assistant is installed in a linklist library.
- OPTIONS - the APA Automation Assistant VSAM KSDS dataset where your options and thresholds are stored. This DD statement is required.
- IMSLOG - the input dataset for AOZRLOG0 which must point to your IMS log records to be processed. This DD statement is required.
- EXTRACT - output file of APA Automation Assistant IMS MPP candidates. This DD statement is required.
- BMP - output file of APA Automation Assistant IMS BMP candidates. This DD statement is required.
- ABENDLST - output file of APA Automation Assistant abended IMS transactions and BMP's. This file is filled when you specified "Build Abend List = Y" in your watchlist definitions for IMS. This DD statement is required.
- PRELOAD - output file of APA Automation Assistant IMS Preload candidates. This DD statement is required.
- SYSPRINT - output file for error and informational message. This DD statement is required.
- SYSOUT - output file for the sort statistics. This DD statement is required.
- SYSUDUMP - output file for dumps. This DD statement is optional and can be omitted.
- SYSIN - AOZRLOG0 control statements. This DD statement is optional and can be omitted.

Load IMS extract data

Please see chapter „Extract Data Loading“ for further processing.

JCL for generating MQSeries extract data

The best way to process the MQSeries account records for your APA Automation Assistant installation is to execute this job after job AOZRSMF0 and using the data set *hlq*.SMF.MQSOUT as input.

Another option is to add this job as an additional step to the standard SMF record processing. In this case, the SMF data has to be used as input.

Please make sure that the MQSeries trace is enabled to account for data classes 1, 2 and 3. The destination for the MQSeries trace must be SMF.

The following example illustrates JCL and control statements for AOZRMQS which batch processes MQSeries account records. A sample job is stored with the member name AOZRMQS in the *hlq*.SAOZSAMP dataset. During the installation process all information was setup to your installation standards.

Generate MQSeries extract data

```
//AOZRMQS  EXEC PGM=AOZRMQS,REGION=0M
//STEPLIB  DD  DISP=SHR,DSN=hlq.SAOZLOAD
//OPTIONS  DD  DISP=SHR,DSN=hlq.OPTIONS
//MQSLOG   DD  DISP=SHR,DSN=hlq.MQSLOG.RECORDS
//EXTRACT  DD  DISP=(,CATLG),DSN=hlq.MQS.EXTRACT,
//             UNIT=SYSALLDA,SPACE=(CYL,(5,3),RLSE),
//             DCB=BLKSIZE=0
//ABENDLST DD  DISP=(,CATLG),DSN=hlq.MQS.ABENDLST,
//             UNIT=SYSALLDA,SPACE=(CYL,(2,1),RLSE),
//             DCB=BLKSIZE=0
//SYSUDUMP DD  SYSOUT=*
//SYSPRINT DD  SYSOUT=*
//SYSOUT   DD  SYSOUT=*
//SYSIN    DD  *
                MQSPLEX(MQSPLEX)
/*
```

Please see ‘Control Statements’ on page 168 for detailed descriptions of the control statements (ddname SYSIN).

DD statements generate MQSeries extract data

- STEPLIB - the load library containing APA Automation Assistant components. This can be omitted if APA Automation Assistant is installed in a linklist library.
- OPTIONS - the APA Automation Assistant VSAM KSDS dataset where your options and thresholds are stored. This DD statement is required.
- MQSLOG - the input dataset for AOZRMQS which must point to the dataset *hlq*.SMF.MQSOUT or to your SMF records to be processed. This DD statement is required.
- EXTRACT - output file of APA Automation Assistant MQS candidates. This DD statement is required.
- ABENDLST - output file of APA Automation Assistant abended MQSeries connections. This file is filled when you specified "Build Abend List = Y" in your watchlist definitions for MQSeries. This DD statement is required.
- SYSPRINT - output file for error and informational message. This DD statement is required.
- SYSOUT - output file for the sort statistics. This DD statement is required.
- SYSUDUMP - output file for dumps. This DD statement is optional and can be omitted.
- SYSIN - AOZRMQS control statements. This DD statement is optional and can be omitted.

Load MQSeries extract data

Please see chapter „Extract Data Loading“ for further processing.

JCL for generating IBM Application Performance Analyzer observation data

APA Automation Assistant stores automatically every observation result in a PDSE, called EXPDS.

The following example illustrates JCL and control statements for AOZEXPDS which batch processes the EXPDS. A sample job is stored with the member name AOZEXPDS in the *hlq*.SAOZSAMP dataset. During the installation process all information was setup to your installation standards.

Generate IBM Application Performance Analyzer observation data

```
//AOZEXPDS EXEC PGM=AOZEXPDS,REGION=0M
//STEPLIB  DD  DISP=SHR,DSN=hlq.SAOZLOAD
//OPTIONS  DD  DISP=SHR,DSN=hlq.OPTIONS
//EXPDS    DD  DISP=SHR,DSN=hlq.EXPDS
//EXTRACT  DD  DISP=(,CATLG),DSN=hlq.REPORT.EXTRACT,
//             UNIT=SYSALLDA,SPACE=(CYL,(50,10),RLSE),
//             DCB=*.EXPDS
//EXTRACTS DD  DISP=(,CATLG),DSN=hlq.REPORT.EXTRACTS,
//             UNIT=SYSALLDA,SPACE=(CYL,(2,1),RLSE),
//             DCB=*.EXPDS
//SYSUDUMP DD  SYSOUT=*
//SYSPRINT DD  SYSOUT=*
//SYSIN    DD  *
CLEAR(YES)
/*
```

DD statements

- STEPLIB - the load library containing APA Automation Assistant components. This can be omitted if APA Automation Assistant is installed in a linklist library.
- OPTIONS - the APA Automation Assistant VSAM KSDS dataset where your options and thresholds are stored. This DD statement is required.
- EXPDS - the input dataset for AOZEXPDS which must point to the dataset *hlq*.SMF.EXPDS. This DD statement is required.
- EXTRACT - output file IBM Application Performance Analyzer observation results. This DD statement is required.
- EXTRACTS - output file IBM Application Performance Analyzer observation results. This DD statement is required.
- SYSPRINT - output file for error and informational message. This DD statement is required.
- SYSUDUMP - output file for dumps. This DD statement is optional and can be omitted.

- SYSIN - AOZEXPDS control statements. This DD statement is optional and can be omitted. The only valid control statement is CLEAR(YES|NO). If omitted the default CLEAR(YES) will be used.
- CLEAR(YES) will remove all members from the EXPDS after the data has been successfully extracted.
- CLEAR(NO) will keep all members after the extract process.

Load IBM Application Performance Analyzer observation results

Please see chapter „Extract Data Loading“ for further processing.

JCL for generating Changed Modules extract data

This job scans the monitored load libraries for changed modules. Execute the job on a Lpar where load libraries should be monitored.

Requests for monitoring load libraries are listed on the 'Loadlib Definitions' ISPF panel of the APA Automation Assistant administration dialogue. This dialogue is described in Chapter 2 (Configuring Application Performance Analyzer Automation Assistant) of the Application Performance Analyzer Automation Assistant Installation Guide.

The example below illustrates JCL for the APA Automation Assistant program AOZRMOD0. A sample job is stored with the member name AOZRMOD0 in the *hlq*.SAOZSAMP dataset. During the installation process all information was setup to your installation standards.

Retrieve Modules data

This part of the job retrieves module data and attributes by scanning all monitored load libraries.

```
//AOZRMOD0 EXEC PGM=AOZRMOD0,REGION=0M
//STEPLIB  DD  DISP=SHR,DSN=hlq.SAOZLOAD
//OPTIONS  DD  DISP=SHR,DSN=hlq.OPTIONS
//EXTRACT  DD  DISP=(,CATLG),DSN=hlq.MOD.EXTRACT,
//             UNIT=SYSALLDA,SPACE=(CYL,(5,3),RLSE),
//             DCB=BLKSIZE=0
//SYSUDUMP DD  SYSOUT=*
//SYSPRINT DD  SYSOUT=*
```

DD statements retrieve Modules data

- STEPLIB - the load library containing APA Automation Assistant components. This can be omitted if APA Automation Assistant is installed in a linklist library.
- OPTIONS - the APA Automation Assistant VSAM KSDS dataset where your options and thresholds are stored. This DD statement is required.
- EXTRACT - output file containing the Modules data. This DD statement is required.
- SYSPRINT - output file for error and informational message. This DD statement is required.
- SYSUDUMP - output file for dumps. This DD statement is optional and can be omitted.

Load Changed Modules extract data

Please see chapter „Extract Data Loading“ for further processing.

Extract Data Loading

This procedure loads the extract data into the APA Automation Assistant DB2 Performance Data Warehouse.

Single steps may terminate with CC=4, if the extract data set contains no data. The same applies if you specified 'Build Abend List = N' in the equivalent Watchlist definitions.

Common DB2 Load Procedure

```
//DSNUPROC PROC
//DSNUPROC EXEC PGM=DSNUTILB,REGION=0M,
//         PARM='DSN1,&UID'
//STEPLIB  DD  DSN=db2hlq.SDSNLOAD,DISP=SHR
//SYSPRINT DD  SYSOUT=*
//UTPRINT  DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//SORTWK01 DD  DSN=&SORTWK01,DISP=(NEW,DELETE),
//             SPACE=(CYL,(3,10),RLSE),UNIT=SYSALLDA
//SORTWK02 DD  DSN=&SORTWK02,DISP=(NEW,DELETE),
//             SPACE=(CYL,(3,10),RLSE),UNIT=SYSALLDA
//SORTWK03 DD  DSN=&SORTWK03,DISP=(NEW,DELETE),
//             SPACE=(CYL,(3,10),RLSE),UNIT=SYSALLDA
//SORTWK04 DD  DSN=&SORTWK04,DISP=(NEW,DELETE),
//             SPACE=(CYL,(3,10),RLSE),UNIT=SYSALLDA
//SYSUT1   DD  DSN=hlq.SYSUT1,DISP=(NEW,CATLG,CATLG),
//             SPACE=(CYL,(3,10),RLSE),UNIT=SYSALLDA,
//             DCB=BLKSIZE=23476
//SYSERR   DD  DSN=hlq.SYSERR,DISP=(MOD,CATLG,CATLG),
//             SPACE=(CYL,(1,10),RLSE),UNIT=SYSALLDA
//SORTOUT  DD  DSN=hlq.SORTOUT,DISP=(MOD,CATLG,CATLG),
//             SPACE=(CYL,(5,10),RLSE),UNIT=SYSALLDA,
//             DCB=BLKSIZE=23476
//SYSMAP   DD  DSN=hlq.SYSMAP,DISP=(MOD,CATLG,CATLG),
//             SPACE=(CYL,(5,10),RLSE),UNIT=SYSALLDA,
//             DCB=BLKSIZE=23476
//SYSDISC  DD  DSN=hlq.SYSDISC,DISP=(MOD,CATLG,CATLG),
//             SPACE=(CYL,(5,10),RLSE),UNIT=SYSALLDA,
//             DCB=BLKSIZE=23476
//SYSRECOO DD  DSN=hlq.&SYSREC,DISP=SHR
//SYSIN    DD  DSN=hlq.SAOZSAMP(&MBR),DISP=SHR
//         PEND
```

DD statements for DSNUPROC procedure

- STEPLIB - the DB2 load library as declared on the installation procedure. This can be omitted if the library is a member of the system linklist.
- UTPRINT - output file for the DB2 utiliy programs. This DD statement is required.
- SYSUDUMP - output file for dumps. This DD statement is optional and can be omitted.
- SORTWKxx - temporary sort work files. This DD statements are required, if your system does not support dynamic allocation of sort work files.
- SYSUT1 - input file of the sort program. This DD statement is required.
- SYSERR - output file for load data in error. This DD statement is required.
- SORTOUT - output file of the sort program. This DD statement is required.
- SYSMAP - output file for DB2 internal data. This DD statement is required.
- SYSDISC - output file for DB2 internal data. This DD statement is required.
- SYSREC00 - this input file must point to the extract data. This DD statement is required.
- SYSIN - DB2 load utility control statements. This DD statement is required.

Load z/OS extract data

```
//LOADAZM  EXEC DSNUPROC,MBR=AOZL#AZM,SYSREC='SMF.EXTRACT',
//         UID=AZM
//LOADAZX  EXEC DSNUPROC,MBR=AOZL#AZX,SYSREC='SMF.ABENDLST',
//         UID=AZX
```

Load CICS extract data

```
//LOADACM  EXEC DSNUPROC,MBR=AOZL#ACM,SYSREC='CICS.EXTRACT',
//         UID=ACM,COND=(4,LT)
//LOADACX  EXEC DSNUPROC,MBR=AOZL#ACX,SYSREC='CICS.ABENDLST',
//         UID=ACX
```

Load DB2 extract data

```
//LOADA2M  EXEC DSNUPROC,MBR=AOZL#A2M,SYSREC='DB2.EXTRACT',
//         UID=A2M,COND=(4,LT)
//LOADA2X  EXEC DSNUPROC,MBR=AOZL#A2X,SYSREC='DB2.ABENDLST',
//         UID=A2X
```

Load IMS extract data

```
//LOADAPM  EXEC DSNUPROC,MBR=AOZL#APM,SYSREC='IMS.EXTRACT',
//         UID=APM,COND=(4,LT)
//LOADAPX  EXEC DSNUPROC,MBR=AOZL#APX,SYSREC='IMS.ABENDLST',
//         UID=APX
//LOADAPB  EXEC DSNUPROC,MBR=AOZL#APB,SYSREC='IMS.BMP',
//         UID=APB
```

Load MQSeries extract data

```
//LOADAQM  EXEC DSNUPROC,MBR=AOZL#AQM,SYSREC='MQS.EXTRACT',
//         UID=AQM,COND=(4,LT)
//LOADAQX  EXEC DSNUPROC,MBR=AOZL#AQX,SYSREC='MQS.ABENDLST',
//         UID=AQX
```

Load IBM Application Performance Analyzer observations

```
//LOADREQ EXEC DSNUPROC,MBR=AOZL#REQ,SYSREC='REPORT.EXTRACT',
//         UID=REQ,COND=(4,LT)
//LOADSRQ EXEC DSNUPROC,MBR=AOZL#SRQ,SYSREC='REPORT.EXTRACTS',
//         UID=SRQ
```

Load Changed Modules data

This job/step compares the retrieved module data and attributes with associated data stored in the APA Automation Assistant DB2 Performance Data Warehouse. If differences are discovered, the new data will be loaded into the APA Automation Assistant DB2 PDWH with a timestamp of the time of discovery.

```
//AOZLMODO EXEC PGM=AOZLMODO
//STEPLIB  DD  DISP=SHR,DSN=hlq.SAOZLOAD
//         DD  DISP=SHR,DSN=db2hlq.SDSNLOAD
//OPTIONS  DD  DISP=SHR,DSN=hlq.OPTIONS
//EXTIN    DD  DISP=SHR,DSN=hlq.MOD.EXTRACT
//EXTOUT   DD  DISP=(,CATLG),DSN=hlq.MOD.EXTRACT2,
//             UNIT=SYSALLDA,SPACE=(CYL,(5,3),RLSE),
//             DCB=*.EXTIN
//SYSPRINT DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//*
```

DD statements load Changed Modules data

- STEPLIB - A concatination of the APA Automation Assistant load library and the DB2 load library as declared on the installation procedure. If one of this libraries is accessible as linklist library, it can be omitted.
- OPTIONS - the APA Automation Assistant VSAM KSDS dataset where your options and thresholds are stored. This DD statement is required.
- EXITIN - input file containing the retrieved Modules data. This DD statement is required.
- EXITOUT - output file containing the loaded Changed Modules data. This DD statement is required.
- SYSPRINT - output file for error and informational message. This DD statement is required.
- SYSUDUMP - output file for dumps. This DD statement is optional and can be omitted.

JCL for loading IMS Preload List data

This job loads the candidates to be managed by the IMS Preload feature into the APA Automation Assistant DB2 Performance Data Warehouse. As input data it requires extraction data as created by the job AOZRLOG0.

The following sample job is stored as member AOZLPLD0 in the *hlq*.SAOZSAMP dataset. During the installation process all information was setup to your installation standards.

Load IMS Preload List data

```
//AOZLPLD0 EXEC PGM=AOZLPLD0
//STEPLIB  DD  DISP=SHR,DSN=hlq.SAOZLOAD
//         DD  DISP=SHR,DSN=db2hlq.SDSNLOAD
//OPTINS   DD  DISP=SHR,DSN=hlq.OPTIONS
//PRELOAD  DD  DISP=SHR,DSN=hlq.IMS.PRELOAD
//SYSPRINT DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//*
```

DD statements loading IMS Preload List data

- STEPLIB - A concatination of the APA Automation Assistant load library and the DB2 load library as declared on the installation procedure. If one of this libraries is accessible as linklist library, it can be omitted.
- OPTIONS - the APA Automation Assistant VSAM KSDS dataset where your options and thresholds are stored. This DD statement is required.
- PRELOAD - the input dataset for AOZLPLD0. It must point to the data set *hlq*.SMF.PRELOAD which will be created by job AOZRLOG0. This DD statement is required.
- SYSPRINT - output file for error and informational message. This DD statement is required.
- SYSUDUMP - output file for dumps. This DD statement is optional and can be omitted.

IBM Application Performance Analyzer Activation

For triggering the automatic IBM Application Performance Analyzer requests, the job AOZBACT0 is prepared for your installation environment.

This job interprets the extract data as generated by the data extraction jobs and determines candidates for a IBM Application Performance Analyzer observation request. Depending on the environment setup option 'Automatic Request' (see 'Configuring environment(s)' on page 83) the job will trigger a IBM Application Performance Analyzer observation request.

The best way to process the automatic IBM Application Performance Analyzer request is to execute this job after all data extraction jobs have completed(see 'Sample Job flow' on page 146).

The following example illustrates the JCL for AOZBACT0. A sample job is stored with the member name AOZBACT0 in the *hlq*.SAOZSAMP dataset. During the installation process all information was setup to your installation standards.

JCL for activating IBM Application Performance Analyzer requests

Job AOZBACT0

```
//AOZBACT0 EXEC PGM=AOZBACT0
//STEPLIB  DD  DISP=SHR,DSN=hlq.SAOZLOAD
//         DD  DISP=SHR,DSN=CAZ.V7R1.SCAZAUTH
//OPTIONS  DD  DISP=SHR,DSN=hlq.OPTIONS
//EXTRACT  DD  DISP=SHR,DSN=hlq.SMF.EXTRACT
//         DD  DISP=SHR,DSN=hlq.DB2.EXTRACT
//         DD  DISP=SHR,DSN=hlq.CICS.EXTRACT
//         DD  DISP=SHR,DSN=hlq.IMS.EXTRACT
//SYSIN    DD  DISP=(,PASS),DSN=&&SYSIN,
//             UNIT=SYSALLDA,SPACE=(TRK,(5,1)),
//             DCB=(RECFM=FB,LRECL=80,BLKSIZE=0)
//SYSPRINT DD  SYSOUT=*
//AOZPRINT DD  SYSOUT=*
//SYSUDUMP DD  SYSOUT=*
//
```

DD statements job AOZBACT0

- STEPLIB - A concatination of the APA Automation Assistant load library and the IBM Application Performance Analyzer load library. If one of this libraries is accessible as linklist library, it can be omitted.
- OPTIONS - the APA Automation Assistant VSAM KSDS dataset where your options and thresholds are stored. This DD statement is required.
- EXTRACT - input file of IBM Application Performance Analyzer candidates as generated by the data extraction jobs AOZRSMF0, AOZRCICS, AOZRDB2 and AOZRLOG0. This DD statement is required.

- SYSIN - control statements generated by the APA Automation Assistant utility program and passed to IBM Application Performance Analyzer for triggering the request(s). This DD statement is required.
- SYSPRINT - output file for error and informational message of IBM Application Performance Analyzer. This DD statement is required.
- AOZPRINT - output file for error and informational message of the APA Automation Assistant program AOZBACT0. This DD statement is required.
- SYSUDUMP - output file for dumps. This DD statement is optional and can be omitted.

Control Statements

For the extract utility programs a control statement may be specified on the SYSIN DD statement. They can be included as instream data or the DD statement can point to a dataset. The DD statement is optional.

These control statements are used to provide additional input for the extractor utilities. Basically these commands define the name of the subsystem plex when this info is not part of the SMF or IMS performance data. It is mandatory for CICS, DB2, IMS and MQS. When used for utility AOZRSMF0 it will override the sysplex name that is part of the SMF data.

General syntax rules

The syntax rules for control records are:

- An asterisk (*) in column 1 indicates a comment record.
- Double slashes (//) and any characters to the right are ignored. This can be used to include comment text to the right of the statement text.
- Data in columns 73 to 80 is ignored.
- A statement consists of a command followed by an optional keyword parameter. The allowable commands are:
- CICSPLEX(CICSPlex name) for extract program **AOZRCICS**
  DB2PLEX(DB2Plex name) for extract program **AOZRDB2**
- IMSPLEX(IMSPlex name) for extract program **AOZRLOG0**
  MQSPLEX(MQSPlex name) for extract program **AOZRMQS**
  SYSPLEX(Sysplex name) for extract program **AOZRSMF0**
- CLEAR(YES|NO) for program **AOZEXPDS**
  Will erase or not erase all members in file EXPDS after successfull extraction. The SELECT keyword is invalid for this command.
- Keyword parameter:

  SELECT(ALL)
- This optional parameter selects all input data regardless of defined watchlist options. The watchlist options „Build Abend List“ and „Abended Jobs“ are treated as ’YES’, enabled. Please keep in mind that all data will be extracted without filtering. This will have a huge impact on the size of the DB2 PDWH.
- The keyword parameter must be separated from each command by a comma like:

  IMSPLEX(imsplex),SELECT(ALL)

  imsplex: name of the IMS Plex that should be used to store the data.

TSO(YES|NO) for program **AOZRSMF0**
This optional keyword filters TSO started tasks (TSUnnnnn). If TSO(NO) specified TSO started tasks will be excluded. TSO(YES) is the default. The keyword parameter must be separated from each command by a comma.

STC(YES|NO) for program **AOZRSMF0**
This optional keyword filters started tasks (STCnnnnn). If STC(NO) specified started tasks will be excluded. STC(YES) is the default. The keyword parameter must be separated from each command by a comma.

Index