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Important: The minimum operating system level is OS/400 V5R1M0 with the final cumulative PTFs applied.
Your Comments are Welcomed

Address your comments or inquiries regarding this documentation to:

S4i Systems Inc.  S4i Systems Ltd.
Product Manager  Product Manager
4755 Oceanside Blvd., Suite 130  29 Sutton Ave.
Oceanside, CA 92056  Culcheth, Warrington
                           Lancashire, WA3-4LN
Telephone: (760) 631-5280  Telephone: 44 192-576-4248
(800) 231-5280  
FAX: (760) 631-5285  

WWW:  http://www.s4isystems.com
EMAIL: info@s4isystems.com

Who to Contact

To have your question answered as quickly as possible, ask for the appropriate department when you call.

The primary subjects customers ask about and the department that handles each subject are listed below.

• Contract invoicing:
  Contact Contract Administration.

• Product access code:
  Contact your Account Manager.

• Installation, maintenance, monitoring, and performance:
  Technical Support answers questions about installing, reinstalling and maintaining the system.

Before Contacting Technical Support

To expedite a solution for your problem, please have the following information available when calling Technical Support:

• Your S4i product release number.
  Obtain this by selecting pressing the F1=Help key, tab to the entry labeled “This release” and press the ENTER key.

• Your version, release and maintenance level of OS/400.

• The exact text of error messages related to the problem you are having.

• A description of the sequence of events causing the problem to occur.

• Other information pertinent to the problem you are having.
How to Contact Technical Support
You may reach S4i Systems Inc. at the following numbers:
(760) 631-5280 (800) 231-5280 FAX: (760) 631-5285
EMAIL: support@s4isystems.com

In Europe:
44 192-576-4248 FAX: 44 192-576-4248
EMAIL: eusupport@s4isystems.com

Mailing Information to Technical Support
If you are asked to provide any documentation (such as a dump) to aid Technical Support
in solving a problem, please send the information to the following address:
S4i Systems Inc.
ATTN. iSeries 400 Technical Support
4755 Oceanside Blvd., Suite 130
Oceanside, CA 92056
In Europe:
S4i Systems Ltd.
29, Sutton Ave
Culcheth, Warrington, Lancashire, WA3 4LN
ENGLAND

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If you have suggestions or comments about this Guide, or any S4i Systems Inc.
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this chapter.
Send it to:
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Documentation Department
4755 Oceanside Blvd., Suite 130
Oceanside, CA 92056
For additional suggestions or comments, feel free to copy the Documentation comment
form.
Product Change/Enhancement Request Form

Name of Product and Feature: ________________________________

Your Name: ____________________________________________

Your Job Title: __________________________________________

Your Phone Number: _____________________________________

Describe Product Change or Enhancement:

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Mail or FAX a copy of this Form to:
S4i Systems Inc.
Product Manager - iSeries 400 Products
4755 Oceanside Blvd. - Suite 130
Oceanside, CA 92056
(800) 231-5280  (760) 631-5280 FAX: (760) 631-5285
Chapter 1
INTRODUCTION
Product Contents
CD Contents

Chapter 2
Getting started with DASD-Plus Alert
Purpose
Product Overview and Process Flow
Process flow
Automated and manual mode
Product Requirements/Prerequisites
IBM iSeries
IBM iSeries Installation
Configuring DASD-Plus Alert
Auxiliary storage pool
Collection interval (seconds)
Retention time (hours)
Trigger event
Trigger amount
Message queue (Monitor & Checker)
Print reports (Monitor & Checker)
Output queue (Monitor & Checker)
Actions run time (minutes)
Collect temporary space data
Collect user profile data
Collect IFS data
Collect actions data
Setting DASD-Plus Alert Attributes
Auxiliary storage pool
Name of event report
Name of user space report
Name of job space report
Name of object space report
Name of temporary space report
Name of IFS space report
Job description
Format of messages
Starting DASD-Plus Alert
Auxiliary storage pool
Collection interval (seconds)
Retention time (hours)
Trigger event
Trigger amount
Message queue
### Chapter 3

#### Tips and Recommendations
- Page 37

#### Setup and Configuration
- Page 37

#### Operation
- Page 38

#### Support
- Page 38
  - Contact Information
- Page 38

### INDEX
- Page 39
CHAPTER 1
INTRODUCTION

PRODUCT CONTENTS

The product you received from S4i Systems Inc., contains the following items:

S4i Systems Product installation CD-ROM
User's Guide You received a printed User's Guide for each tool you are licensed to. Manuals for any other tools in the Grand Slam toolset can be found on your product CD. Each manual is intended to help you get started with the tool, explain the tool's features, and provide guidance on the effective use of the product.

You also should have received a license key (password) for DASD-Plus Alert. This key is entered after you install the product. To enter the key use the PASSWORD command in the installation (normally S4IDP) library.

Note: The library name S4IDP in this manual is used as a place holder for the installation library name.

CD CONTENTS

<table>
<thead>
<tr>
<th>Item</th>
<th>CD-ROM location</th>
</tr>
</thead>
<tbody>
<tr>
<td>iSeries Product Installation</td>
<td>\diskHUNT</td>
</tr>
<tr>
<td>disk/HUNTER documentation and other information</td>
<td>\diskHUNTER</td>
</tr>
</tbody>
</table>
CHAPTER 2
GETTING STARTED WITH DASD-PLUS ALERT

This section describes how to get started quickly with DASD-Plus Alert. With the information in this section, you should be able to install and easily configure the utility to begin tracking critical disk consumption details by user, job and object.

The steps outlined in this Getting Started section are:
1. Purpose
2. Product Requirements/ Prerequisites
3. Product overview and flow
4. Product Installation
5. Starting DASD-Plus Alert program
6. DASD-Plus Alert Monitor
7. DASD-Plus Alert Reports
8. Ending the DASD-Plus Alert program
9. Check DASD-Plus Alert

PURPOSE

S4i Systems DASD-Plus Alert supports IBM iSeries system and application availability by providing detection and notification services for sudden or unanticipated growth in disk space usage. With automated data collection and analysis, DASD-Plus Alert provides system operators with the detailed, root-cause information they need to take corrective action when rapid disk usage occurs unexpectedly.

Today, if disk utilization starts to climb and goes undetected, the system can crash. If an operator notices this growth, it is very difficult to identify which jobs and/or objects are consuming disk resources. Therefore, making it difficult to take quick, corrective action.

The benefit of using DASD-Plus Alert to prevent disk overload is that it can prevent strategic application and system downtime. The utility runs as a low-impact background job and eliminates the high cost of dedicated, manual monitoring.
DASD-Plus Alert is made up of configuration commands, monitoring jobs, and programs that collect detailed data and produce reports. The overall flow for the tool is as follows:

1. **Start S4i DASD-Plus Alert with the STRDSKHTR command**
   - Configure S4i DASD-Plus Alert with the CFGDSKHTR and SETDSKHTR commands
   - Install S4i DASD-Plus Alert with the LODRUN command and enter the license key
   - S4i DASD-Plus Alert collects "baseline" disk statistics for Users, IFS and the System
   - S4i DASD-Plus Alert generates reports when a disk spike occurs
   - End user takes actions to reduce correct disk space usage spike
   - End S4i DASD-Plus Alert with the ENDDSOKHTR command

**Process Flow**

DASD-Plus Alert can be run in two basic modes: manual and automatic. The diagram above shows how to run in automated mode. In this mode, DASD-Plus Alert runs a background job (known as the Monitor).

The first thing the Monitor does is to collect disk space statistics (1) for the system or for an auxiliary storage pool (ASP), (2) for storage used by user profiles, and (3) for storage taken up by files in the integrated file system (IFS). These baseline statistics are used to pinpoint areas of growth when they do occur.

Once baseline statistics are collected, the Monitor goes into a "sleep state" to minimize overhead to your system. The Monitor then wakes up at intervals specified when DASD-Plus Alert was configured and determines if there has been a drop in the amount of free disk space on your system. If there has, that decrease is compared to the threshold you set. If it exceeds the threshold, several actions are taken:
1. A message (or set of messages) is sent to a message queue that you specify (optional).

2. A report is generated to indicate that the threshold you set has been exceeded and is sent to an output queue you specify (optional).

3. The disk space baseline is set to the values that triggered the event.

4. Detailed data collection is started to detect what is causing the growth occurring at the current time. The length of time this detailed data is collected is set using the CFGDSKHTR command. This phase of data collection is referred to in command help as the Checker.

5. User profile and IFS information is collected.

6. As the data is collected, up to five reports are produced to show:
   a. The increase in disk space used for the user profiles on the system since the last baseline.
   b. Jobs that have consumed the most disk space since the detailed data collection was started.
   c. Objects that have grown the most since the detailed data collection was started.
   d. Jobs that are using the most temporary storage.
   e. Files or documents in IFS that have grown the most since the last baseline.

   **NOTE:** Any report type can be suppressed if so desired. Also, any collection type can be suppressed.

7. Messages are sent for the top three jobs or objects listed in the reports listed in #5 (optional).

8. If email functionality is turned on, an email will be created and sent out to all the recipients.

9. Monitor goes back to sleep.

**Automated and Manual Mode**

If you choose, you can run DASD-Plus Alert in manual mode. With this approach, you first configure DASD-Plus Alert. Then you monitor your system for disk growth manually or with a pre-existing monitor. Once a spike in disk use is detected, you execute the CHKDSKSPC command in order to produce the detailed reports necessary to identify the jobs, users, and objects causing the growth.

**NOTES:** Since collected data is stored in QTEMP, it exists only so long as the job you use for this purpose.

You should run CHKDSKSPC when you start this job, and whenever you want to determine what may have caused growth in disk usage.
PRODUCT REQUIREMENTS/PREREQUISITES

DASD-Plus Alert requires specific IBM iSeries hardware and software before it will install and perform correctly.

IBM iSERIES

OS/400 V5R1 or higher

IBM iSERIES INSTALLATION

DASD-Plus Alert needs to be installed on the IBM iSeries. The following steps detail the installation process.

1. Put the Installation CD into your iSeries CD ROM drive.
2. Enter the following command: LODRUN DEV(opt01)
3. Select either Option 5 or Option 6 depending if the installation is a new/upgrade or PTF install.
4. A screen panel similar to the following will be displayed:

```
Product name: S4i Systems Inc.
Product version: 7.01.04 25th June 2009
OS/400 version: V5R1
AS/400 model: 520
AS/400 serial number: 14501.520
DASD-Plus product library: S4D4P
DASD-Plus command library: S4D4P
Install with default values: [YES] [YES], [NO]
```

5. Press the F10 key to confirm your installation choices. The product will display status messages during the installation.
6. You will be prompted to enter configuration information. See the following pages for a description of the parameters and their use. You can also enter F1 to get command help or information on each parameter. If this is an upgrade, your configuration(s) will be preserved.
7. You will be prompted for the license key. If this is an upgrade, the license key will be preserved.
8. When the installation has completed, a message will be displayed indicating that the product was successfully installed.
Configuring DASD-Plus Alert for all ASPs can be done during the installation or afterwards (if you want to configure DASD-Plus Alert for individual ASPs, you will have to complete the configuration after installing the tool).

To configure DASD-Plus Alert, use the following command:

```
CFGDSKHTR
```

Press F4 to prompt. Enter the ASP, and the configuration options are displayed. As you press Enter, more options appear. The following screen will be shown:

Press F9 or F10 and page down to see the additional parameters.
NOTES: Some of the parameters are dependent on others, so you may have to hit Enter multiple times to see them all.

The CFGDSKHTR command can be run while the Monitor is active. The Monitor checks a position in the configuration data area to verify whether values have been changed. It then changes the session settings accordingly.

**Auxiliary Storage Pool**

Specifies the auxiliary storage pool to be monitored. If you have one system ASP, or you do not need ASP-level reporting, use the *ALL option.

The possible values are:
- *ALL – Monitor disk space for all ASPs. This is the default.
- asp-number – Specify the ASP to be monitored. The value ranges from 1 to 99.

If you have multiple ASPs, you can configure DASD-Plus Alert to monitor and report on each ASP separately. To configure DASD-Plus Alert for the system ASP, enter a 1 for this parameter. For all other ASPs, enter the number of that storage pool. A separate configuration data area is created for each ASP.

If you have previously configured DASD-Plus Alert, when you prompt the CFGDSKHTR command, the existing configuration settings will be shown. If you have not previously configured DASD-Plus Alert, a new configuration data area (XCDHCFG) is created and initialized with shipped values. If you configure a Monitor for a specific ASP, a 2-digit number will be appended to the name (XCDHCFG01 for ASP1).

**Collection Interval (seconds)**

Specifies the time that the Monitor goes into a sleep state before checking on the disk space utilization for the system or ASP. The shipped value is 15 seconds.

The possible values are:
- *CFG – Use the currently configured collection interval.
- collection-interval – Specify the duration of the sleep state. The value ranges from 15 to 3600 seconds (1 hour).

On every collection, the space information is written to the XCASPI (ASP information) file in library S4IDP. This provides a historical perspective of disk space use.

**Retention Time (Hours)**

Specifies the number of hours that disk space statistics are retained in the XCASPI file. When information in this file is older this retention time, it is removed from the file. The shipped value is 168 hours.

The possible values are:
- retention-time – Specify the number of hours to retain disk space statistics. The value ranges from 1 to 168.
• *CFG – Use the currently configured retention time.

NOTE: The XCASPI file reuses deleted records, so this file will reach a maximum size based on the retention time and not grow any larger. Note that, after some time, records may not be in time order when they are added to XCASPI.

TRIGGER EVENT

Specifies the behavior that will the Monitor to take action. The shipped value is *PERCENT (5).

The possible values are:
• *CFG – Use the currently configured trigger event.

  NOTE: If this parameter is *CFG, the trigger amount must also be *CFG.
• *PERCENT – Action is taken when disk free space decreases by the percentage specified in the trigger amount.
• *MEGABYTES – Action is taken when disk free space decreases by the number of megabytes specified in the trigger amount.
• *GIGABYTES – Action is taken when disk free space decreases by the number of gigabytes specified in the trigger amount.

  NOTE: DASD-Plus Alert actually collects and reports in million and billions of bytes and not actual megabytes (1024x1024) and gigabytes (1024x1024x1024). This changed to conform to IBM.

TRIGGER AMOUNT

Specifies the size of the event that will cause action to be taken. The shipped value is 5 (*PERCENT).

The possible values are:

• *CFG – Use the currently configured trigger amount.

  NOTE: If this parameter is *CFG, the trigger event must also be *CFG.
• trigger-amount – Specify the size, based on the type of event.
  The value ranges from 1 to 100 when the trigger event is *PERCENT.
  o The value ranges from 500 to 32,767 when the trigger event is *MEGABYTES.
  o The value ranges from 1 to 32,767 when the trigger event is *GIGABYTES.

MESSAGE QUEUE (MONITOR & CHECKER)

Specifies the message queue where messages should be sent when action is taken. The shipped value is *LIBL/QSYSOPR.

The possible values are:

• *CFG – Use the currently configured message queue.
• *NONE – Do not send any messages.  
  *NOTE:* You will need to set Print reports (Monitor or Checker) to *YES.

• message-queue-name – Specify the name and library of the message queue.

  The possible library values are:
  o *LIBL – All libraries in the job’s library list are searched until the first match is found.
  o *CURLIB – The current library for the job is used to locate the name of the message queue. If no library is specified as the current library for the job, QGPL is used.
  o library-name – Specify the name of the library where the message queue is located.

  *NOTE:* If the QSYSMSG message queue exists, messages will be sent there, as well.

**Print reports (Monitor & Checker)**

Specifies whether to print reports when action is taken.

The possible values are:

• *CFG – Use the currently configured setting.

  *NOTE:* You will need to specify a message queue to which to send messages.

• *YES – Print reports when action is taken.

• *NO – Do not print reports when action is taken.

  *NOTE:* If you specify *NO for the Monitor, no "Triggered Event" report will be produced. If you specify *NO for the Checker, the detailed reports on jobs, objects, users, and IFS will not be produced.

**Output queue (Monitor & Checker)**

Specifies the job default output queue where the reports will be sent.

The possible values are:

• *CFG – Use the currently configured output queue.

• *SAME – The default output queue does not change.

• *USRPRF – The output queue specified in the user profile under which this job is initially running will be used.

• *DEV – The DEV parameter is determined by one of these printer file commands:
  o Create Printer File (CRTPRTF)
  o Change Printer File (CHGPRTF)
  o Override with Printer File (OVRPRTF).
• **WRKSTN** – The default output queue used with this job is the output queue assigned to the work station that is associated with the job at the time the job is started.

*NOTE:* This assumes that the defaults were specified on the OUTQ parameter for the printer file, job description, user profile and workstation.

• **output-queue-name** – Specify the name and library of the default output queue used by the job.

The possible library values are:

  o *LIBL* – All libraries in the job's library list are searched until the first match is found.
  
  o *CURLIB* – The current library for the job is used to locate the name of the output queue. If no library is specified as the current library for the job, QGPL is used.

  o library-name – Specify the name of the library where the output queue is located.

---

**ACTIONS RUN TIME (MINUTES)**

Specifies how long the detailed data collection should run after the threshold has been exceeded. The amount of data collected on a very busy system can be large. You should increase this time only if you have situations where the reports do not give you enough information to identify the job or object that is consuming disk storage. The shipped value is 5 minutes.

The possible values are:

  • *CFG* – Use the currently configured actions run time.
  
  • actions-run-time – Specify the duration of detailed data collection. The value ranges from 1 to 60 minutes.

---

**COLLECT TEMPORARY SPACE DATA**

Specifies whether to collect data about temporary space used by jobs. The shipped value is *YES.*

*NOTE:* At least one of the data collection types must be selected.

The possible values are:

  • *CFG* – Use the currently configured setting.
  
  • *YES* – Collect job temporary space data.
  
  • *NO* – Do not collect job temporary space data.
COLLECT USER PROFILE DATA

Specifies whether to collect data about auxiliary storage assigned to objects owned by user profiles. The shipped value is *YES.

NOTE: At least one of the data collection types must be selected.

The possible values are:

• *CFG – Use the currently configured setting.
• *YES – Collect user profile auxiliary storage data.
• *NO – Do not collect user profile auxiliary storage data.

COLLECT IFS DATA

Specifies whether to collect data about storage used by IFS objects. The shipped value is *YES.

NOTE: At least one of the data collection types must be selected.

The possible values are:

• *CFG – Use the currently configured setting.
• *YES – Collect IFS object data.
• *NO – Do not collect IFS object data.

COLLECT ACTIONS DATA

Specifies whether to collect data about additional storage used by jobs and objects after the threshold was exceeded. The shipped value is *YES.

NOTE: At least one of the data collection types must be selected.

The possible values are:

• *CFG – Use the currently configured setting.
• *YES – Collect detailed data about jobs and objects.
• *NO – Do not collect detailed data about jobs and objects.
**SETTING DASD-PLUS ALERT ATTRIBUTES**

When the configuration is run, you should also run the SETDSKHTRA command. This is used to set report names, job description, and type of messages. The command should be run for each ASP Monitor that has been configured.

S4IDP/SETDSKHTRA

Press F4 to prompt. Enter the ASP, and the configuration options are displayed. As you press Enter, more options appear. The following screen will be shown:

### AUXILIARY STORAGE POOL

Specifies the auxiliary storage pool to be monitored. The value ranges from 1 to 99. *ALL is the default. If you have one system ASP, or you do not need ASP-level reporting, use the *ALL option.

The possible values are:

- **ALL** – Monitor disk space for all ASPs.
- asp-number – Specify the ASP to be monitored.

If you have not previously configured DASD-Plus Alert, a new configuration data area (XCDHCFG) is created and initialized with shipped values. If you set attributes for a Monitor for a specific ASP, a 2-digit number will be appended to the name (XCDHCFG01 for ASP1).

**NOTE:** This value should be the same as the value used in running the CFGDSKHTR command.
**NAME OF EVENT REPORT**

Specifies the name of the spooled file generated by the Monitor when reporting that the threshold has been exceeded. The shipped value is XCTRGEVT. The possible values are:

- *CFG – Use the currently configured name.
- *NONE – Do not produce this report.
- name – Specify a name up to 10 characters in length.

**NAME OF USER SPACE REPORT**

Specifies the name of the spooled file generated by the Checker when reporting disk space consumed by user profiles. The shipped value is XCUSRSPC. The possible values are:

- *CFG – Use the currently configured name.
- *NONE – Do not produce this report.
- name – Specify a name up to 10 characters in length.

**NAME OF JOB SPACE REPORT**

Specifies the name of the spooled file generated by the Checker when reporting disk space consumed by active jobs. The shipped value is XCJOBSPC. The possible values are:

- *CFG – Use the currently configured name.
- *NONE – Do not produce this report.
- name – Specify a name up to 10 characters in length.

**NAME OF OBJECT SPACE REPORT**

Specifies the name of the spooled file generated by the Checker when reporting disk space consumed by system objects. The shipped value is XCOBJSPC. The possible values are:

- *CFG – Use the currently configured name.
- *NONE – Do not produce this report.
- name – Specify a name up to 10 characters in length.

**NAME OF TEMPORARY SPACE REPORT**

Specifies the name of the spooled file generated by the Checker when reporting temporary disk space consumed by active jobs. The shipped value is XCTMPSPC. The possible values are:

- *CFG – Use the currently configured name.
- *NONE – Do not produce this report.
- name – Specify a name up to 10 characters in length.
NAME OF IFS SPACE REPORT

Specifies the name of the spooled file generated by the Checker when reporting on disk space consumed by objects in the integrated file system (IFS). The shipped value is XCIFSSPC.

The possible values are:

• *CFG – Use the currently configured name.
• *NONE – Do not produce this report.
• name – Specify a name up to 10 characters in length.

JOB DESCRIPTION

Specifies the job description to be used by the Monitor assigned to the specified ASP. The shipped value is *USRPRF.

The possible values are:

• *CFG – Use the currently configured job description.
• *USRPRF – Use the value from the profile of the user specifying the command
• job-description-name – Specify the name and library of the job description that the Monitor should use.

The possible library values are:

 o *LIBL – All libraries in the user library list are searched until the first match is found.
 o *CURLIB – The current library of the job is used to locate the name of the job description.
 o library-name – Specify the name of the library where the job description is located.

NOTE: It is important that the Monitor not be submitted to a single-threaded job queue. Other jobs submitted to that queue would not run so long as the Monitor is active. This parameter lets you control this and other job control factors.

FORMAT OF MESSAGES

Specifies the style of messages sent by the Monitor and the Checker. The shipped value is *TERSE.

The possible values are:

• *CFG – Use the currently configured message style.
• *TERSE – Use messages that indicate the reason for the notification and associated message data that has specific information related to this occurrence of the message. Messages for up to two (2) items in each category are sent. The following message ID's from the S4IDP/XCDHMSGF message file are used.

 o XDH0014 – Identifies jobs that had the greatest object growth during detailed data collection.
- XDH0015 – Identifies objects that grew the most during detailed data collection.
- XDH0016 – Identifies jobs that are using the most temporary storage.
- XDH0017 – Identifies user profiles whose auxiliary storage has grown the most since the last baseline.
- XDH0018 – Identifies IFS objects that have grown the most since the last baseline.

- **VERBOSE** – Use messages that simulate a printed report. When using DSPMSG, the messages will look similar to the printed reports (spooled files) produced when the user chooses, on the MNPRINT and CHPRINT parameters on the CFGDSKHTR command, to have printed reports produced.

### Starting DASD-Plus Alert

Once configuration is complete, DASD-Plus Alert can be started. The program will default to the configuration settings, as described in the Configuring DASD-Plus Alert section of this document. The following command can be used to start the program:

**S4IDP/STRDSKHTR**

Press F4 to prompt. Enter the ASP, and the configuration options are displayed. As you press Enter, more options appear. The following screen will be shown:

![Start DASD-Plus Alert Monitor (STRDSKHTR) Screen]

**NOTES:** Unless otherwise specified, the Monitor will start for all ASPs. If you have multiple ASPs configured, you will need to start the DASD-Plus Alert for each ASP you want to monitor.
The configuration settings for the Monitor can be overridden, for just one session, by prompting on this command. The parameters can be changed and will be used only during the duration of the session. Configuration settings will not be changed.

**Auxiliary storage pool**

Specifies the auxiliary storage pool to be monitored. If you have one system ASP, or you do not need ASP-level reporting, use the *ALL option.

The possible values are:

- *ALL – Monitor disk space for all ASPs. This is the default.
- asp-number – Specify the ASP to be monitored. The value ranges from 1 to 99.

If you have multiple ASPs, you can start a Monitor and report on each ASP separately. To start a Monitor for the system ASP, enter a 1 for this parameter. For all other ASPs, enter the number of the storage pool.

If you have previously configured DASD-Plus Alert, when you prompt the STRDSKHTR command, the existing configuration settings will be shown. If you have not previously configured DASD-Plus Alert, a new configuration data area (XCDHCFG) is created and initialized with shipped values. If you start a Monitor for a specific ASP, a 2-digit number will be appended to the name (XCDHCFG01 for ASP1).

**Collection interval (seconds)**

Specifies the time that the Monitor goes into a sleep state before checking on the disk space utilization for the system or ASP. The shipped value is 15 seconds.

The possible values are:

- *CFG – Use the currently configured collection interval.
- collection-interval – Specify the duration of the sleep state. The value ranges from 15 to 3600 seconds (1 hour).

On every collection, the space information is written to the XCASPI (ASP information) file in library S4IDP. This provides a historical perspective of disk space use.

**Retention time (hours)**

Specifies the number of hours that disk space statistics are retained in the XCASPI file. When information in this file is older this retention time, it is removed from the file. The shipped value is 168 hours.

The possible values are:

- retention-time – Specify the number of hours to retain disk space statistics. The value ranges from 1 to 168.
- *CFG – Use the currently configured retention time.
**NOTE:** The XCASPI file reuses deleted records, so this file will reach a maximum size based on the retention time and not grow any larger. Note that, after some time, records may not be in time order when they are added to XCASPI.

**TRIGGER EVENT**

Specifies the behavior that will the Monitor to take action. The shipped value is *PERCENT (5).

The possible values are:

- *CFG – Use the currently configured trigger event.

**NOTE:** If this parameter is *CFG, the trigger amount must also be *CFG.

- *PERCENT – Action is taken when disk free space decreases by the percentage specified in the trigger amount.
- *MEGABYTES – Action is taken when disk free space decreases by the number of megabytes specified in the trigger amount.
- *GIGABYTES – Action is taken when disk free space decreases by the number of gigabytes specified in the trigger amount.

**TRIGGER AMOUNT**

Specifies the size of the event that will cause action to be taken. The shipped value is 5 (*PERCENT).

The possible values are:

- *CFG – Use the currently configured trigger amount.

**NOTE:** If this parameter is *CFG, the trigger event must also be *CFG.

- trigger-amount – Specify the size, based on the type of event.
  - The value ranges from 1 to 100 when the trigger event is *PERCENT.
  - The value ranges from 500 to 32,767 when the trigger event is *MEGABYTES.
  - The value ranges from 1 to 32,767 when the trigger event is *GIGABYTES.

**MESSAGE QUEUE**

Specifies the message queue where messages should be sent when action is taken. The shipped value is *LIBL/QSYSOPR.

The possible values are:

- *CFG – Use the currently configured message queue.
- *NONE – Do not send any messages.

**NOTE:** You will need to set Print reports to *YES.
• message-queue-name – Specify the name and library of the message queue.

The possible library values are:
  o *LIBL – All libraries in the job's library list are searched until the first match is found.
  o *CURLIB – The current library for the job is used to locate the name of the message queue. If no library is specified as the current library for the job, QGPL is used.
  o library-name – Specify the name of the library where the message queue is located.

**PRINT REPORTS**

Specifies whether to print reports when action is taken.

The possible values are:

• *CFG – Use the currently configured setting.
  
  *NOTE: You will need to specify a message queue to which to send messages.

• *YES – Print reports when action is taken.

• *NO – Do not print reports when action is taken.
  
  *NOTE: If you specify *NO, the "Triggered Event" report will not be produced.

**OUTPUT QUEUE**

Specifies the job default output queue where the reports will be sent.

The possible values are:

• *CFG – Use the currently configured output queue.

• *SAME – The default output queue does not change.

• *USRPRF – The output queue specified in the user profile under which this job is initially running will be used.

• *DEV – The DEV parameter is determined by one of these printer file commands:
  
  o Create Printer File (CRTPRTF)
  o Change Printer File (CHGPRTF)
  o Override with Printer File (OVRPRTF).

• *WRKSTN – The default output queue used with this job is the output queue assigned to the work station that is associated with the job at the time the job is started.
  
  *NOTE: This assumes that the defaults were specified on the OUTQ parameter for the printer file, job description, user profile and workstation.
• output-queue-name – Specify the name and library of the default output queue used by the job.

The possible library values are:
  o *LIBL – All libraries in the job's library list are searched until the first match is found.
  o *CURLIB – The current library for the job is used to locate the name of the output queue. If no library is specified as the current library for the job, QGPL is used.
  o library-name – Specify the name of the library where the output queue is located.

---

**DASD-Plus Alert Monitor**

When the DASD-Plus Alert is started, a DSKHTR job begins to run in the background. The job will periodically check the disk status, at the collection interval defined in the configuration. If you have set up tracking for specific ASP support, DSKHTRnn jobs will start. For example, DSKHTR01 indicates the job monitoring ASP 1, and DSKHTR02 indicates the job monitoring ASP 2, etc. A DSKHTR job will start when monitoring all auxiliary storage pools on the system.

**Monitor Details**

• The job periodically checks the disk status to verify whether the trigger parameters have been met. If the trigger parameters have not been met, no information is logged.

• If disk free space increases by 25% of the trigger amount, the baseline is set to the new values. User and IFS information is also collected at this time.

• If the trigger parameters have been met, the trigger is activated and gathers disk space usage details for users, IFS, job, and objects. When the threshold parameters have been met, the product calls the CHKDSKSPC command. The information is placed in a status area. The reports and messages are displayed to the system operator. Please note that a message queue and/or a print report option (*YES) must be set in the configuration for this notification to occur.

• Status information: User and IFS information is collected at the beginning of the session (or when these collection types are activated), and whenever action is taken. The product compares the current information to the last collection information. The product maintains the current collection information and up to previous five collections for users and the IFS. The regular disk space information, collected at each interval, is kept for as many hours as specified in the configuration or start command.
DASD-PLUS ALERT LOG FILE

DASD-Plus Alert maintains a log file. The log file is named XCDHLG in library S4IDP. The log file can be cleared periodically if the operator wishes to do so. The data can be totally cleared or selectively purged, based on the operator's preference. Use the following command to clear the log file:

CLRPFM FILE(S4IDP/XCDHLG)

A selective delete can be used to remove just a subset of the records in the file. The following statement will delete rows where the data is over one month old. The statement can be modified based on the amount of data the operator wishes to remove.

DELETE FROM S4IDP/XCDHLG WHERE SYSTIME < CURRENT TIMESTAMP – 1 MONTH

DASD-PLUS ALERT REPORTS AND INTERPRETATION

DASD-Plus Alert reports are generated when the xxPRINT(*YES) parameters have been set in the configuration. DASD-Plus Alert generates several reports about disk space use. These reports are intended to provide a variety of perspectives on the use of space so that a system operator or administrator can determine the possible source of growth. The reports and interpretations are listed below:

1. Triggered Events: The "Triggered Events" report gives the date, time and overall storage growth details for an event.

   o The shipped value report spooled file name is XCTRGEVT. This name can be changed with the SETDSKHTRA command. A sample is shown:

   ***********************
   *                    *
   *  Triggered Events  *
   *                    *
   ***********************

   XCDH0022
   XCTRGEVT

   disk/HUNTER Session: 17
   Date: 06/18/2003
   Time: 15:02:35
   Trigger: 5 13 PERCENT
   Disk Free Space: 6288.24
   Current: 5367.02

   o The message (XDH0005) that corresponds to the report is:

   Disk free space usage threshold exceeded – press <Help> for more info.
2. Disk Consumption by Jobs: The "Disk Consumption by Jobs" report is a summary by job of the data collected during the detailed collection period. The amount of growth and the qualified job name are listed. The jobs that used the most additional disk space during the detailed collection period can be identified quickly, so that immediate action can be taken.

- The shipped value report spooled file name is XCJOBSPC. This name can be changed with the SETDSKHTRA command. A sample is shown:

```
* *******************************************************
* * Disk consumption by Jobs                           *
* *******************************************************
XCDH0010  6/18/03  15:09:02
XCJOBSPC

  disk/HUNTER session number:  17

  Data collected between 06/18/2003 at 15:02:17
  and 06/18/2003 at 15:07:19

  Size (MB)  Job    User    Number
  ---------------  ------  ------  -------
  689.332        VERA1   VERN    058710
```

- The message (XDH0014) that corresponds to the report is:

```
Job 058710/VERN/VERA1 has consumed an additional 689.332 megabytes in the
current collection period.
```
### Additional Message Information

<table>
<thead>
<tr>
<th>Message ID</th>
<th>Severity</th>
<th>Date sent</th>
<th>Time sent</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDH0014</td>
<td>00</td>
<td>06/18/02</td>
<td>15:00:02</td>
</tr>
</tbody>
</table>

Message: Job 068710/VERN/VERMA1 has consumed an additional 689,332 bytes in the current collection period.

During the latest collection period, the 068710/VERN/VERMA1 job has used additional disk space. This job may be the reason disk storage is currently dropping.

3. Disk Consumption by Objects: The "Disk Consumption by Objects" report shows the growth of the listed objects during the detailed collection period. The amount of growth, object name and type are shown to assist in determining the root cause of disk consumption. In addition, the job in which the growth occurred is listed. Because of the system overhead associated with collecting detailed, object-level information, DASD-Plus Alert minimizes the ongoing system overhead by only capturing this information when a disk spike has occurred. Typically an object that has grown and contributed to that disk spike will continue to grow. This allows the detailed data capture mechanism to identify the object and job. If, however, the object grew as part of a single operation, this report may not capture the growth. If the total disk space in this report does not appear to explain where the disk space is going, it is recommended that the integrated file system report be examined. Since IFS files tend to grow in large chunks and then stop, they may not always be captured by the "Disk Consumption by Objects" report. The "Disk Consumption by Objects" report will show objects used by OS/400, as well as by your applications. In general, the internal OS/400 objects will be small and can be ignored. If you do find a large operating system object and can't explain what it is, use this report when working with IBM support so that they can diagnose the issue.
The shipped value report spooled file name is XCOBJSPC. This name can be changed with the SETDSKHTRA command. A sample is shown:

```
+-------------------------------------------------------------------+
| Disk consumption by Objects | All auxiliary storage pools |
+-------------------------------------------------------------------+
```

<table>
<thead>
<tr>
<th>Object</th>
<th>Size (MB)</th>
<th>Library</th>
<th>Object Name</th>
<th>Object/Segment Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEST02</td>
<td>659.937</td>
<td>VERN</td>
<td>TEST02</td>
<td>*PF</td>
</tr>
<tr>
<td>Job:</td>
<td>16.000</td>
<td>VERN</td>
<td>35CF27964360</td>
<td>*STMF</td>
</tr>
<tr>
<td>VRENA1</td>
<td>10.000</td>
<td>VERN</td>
<td>1655DRC586ED0</td>
<td>*STMF</td>
</tr>
<tr>
<td>VRENA1</td>
<td>1.250</td>
<td>VERN</td>
<td>056BA12AD900</td>
<td>*STMF</td>
</tr>
<tr>
<td>VRENA1</td>
<td>1.000</td>
<td>VERN</td>
<td>VRENA1</td>
<td>Process Control</td>
</tr>
<tr>
<td>VRENA1</td>
<td>.625</td>
<td>VERN</td>
<td>0F41F2E9F800</td>
<td>*STMF</td>
</tr>
<tr>
<td>VRENA1</td>
<td>.437</td>
<td>VERN</td>
<td>UIM TEMPORARY WORKSP</td>
<td>*USRSPC (temporary)</td>
</tr>
</tbody>
</table>

The message (XDH0015) that corresponds to the report is:

```
Object TEST02 TEST02 in library VERN of type *PF has grown by 659.937 megabytes in the current collection period because of job 058718/VERN/VERNA1.
```

Press Help (F1) to see more information.
4. Job Temporary Storage: The "Job Temporary Storage" report shows how much disk space is being used by jobs for internal functions. It lists the top 20 jobs that are consuming temporary storage. The storage, in megabytes, for each job, user and number are displayed. These jobs can be easily monitored. This report will not show objects in QTEMP or other "temporary" objects created by OS/400 like temporary database files or indices created by queries or reports.

**NOTE:** This report is a snapshot – it does not report growth by job.

- The shipped value report spooled file name is XCTMPSPC. This name can be changed with the SETDSKHTRA command. A sample is shown:

```
 disk/HUNTER session number: 17
 Data collected on 06/18/2003 at 15:02:40

<table>
<thead>
<tr>
<th>Total Stg (MB)</th>
<th>Job</th>
<th>User</th>
<th>Number</th>
<th>Profile</th>
<th>Group Profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>77</td>
<td>GCPF</td>
<td>QSYS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>QDPSSVR</td>
<td>QDPSSVR</td>
<td></td>
<td>QSYS</td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>QDPSSVR</td>
<td>QDPSSVR</td>
<td></td>
<td>QSYS</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>QPSSVR</td>
<td>QSYS</td>
<td></td>
<td>QSYS</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>QPDEV0000</td>
<td>ELVIS</td>
<td></td>
<td>QSYS</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>QZBSPSEP</td>
<td>QUSER</td>
<td></td>
<td>QSYS</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>QPDEV0000</td>
<td>ELVIS</td>
<td></td>
<td>QSYS</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>VERN1</td>
<td>VERN</td>
<td></td>
<td>QSYS</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>QZSELFSVR</td>
<td>QGMSPR</td>
<td></td>
<td>QSYS</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>QZBSPSEP</td>
<td>QUSER</td>
<td></td>
<td>QSYS</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>QZBSPSEP</td>
<td>QUSER</td>
<td></td>
<td>QSYS</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>FRXC</td>
<td>QSPLJOB</td>
<td></td>
<td>QSYS</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>QTFTP0444</td>
<td>QTCP</td>
<td></td>
<td>QSYS</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>QTFTP0444</td>
<td>QTCP</td>
<td></td>
<td>QSYS</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>QTFTP0444</td>
<td>QTCP</td>
<td></td>
<td>QSYS</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>QTFTP0444</td>
<td>QTCP</td>
<td></td>
<td>QSYS</td>
<td></td>
</tr>
</tbody>
</table>

The message (XDH0016) that corresponds to the report is:

Job 000000/OSYS/GCPF has consumed 77 megabytes of temporary storage. The job is running under user profile QSYS and group profile *NONE.*

Press Help (F1) to see more information.
5. User Profile Auxiliary Storage: The "User Profile Auxiliary Storage" report shows the growth in disk space, for objects owned by the user, between the time the baseline information was captured and the current event. The top 20 user profiles that have shown increased storage since the last collection session will be listed, allowing the system operator to take appropriate action. Baseline information is collected when DASD-Plus Alert is started and is collected again when the threshold is exceeded (which becomes the new baseline). You may see profiles listed in this report that are not used by applications or associated jobs. Because it is common practice to have a single profile own all objects for a given application, this report will show the growth associated with that "application profile." The times shown in this report indicate the period of time the growth occurred.

- The shipped value report spooled file name is XCUSRSPC. This name can be changed with the SETDSKHTRA command. A sample is shown:

```
<table>
<thead>
<tr>
<th>User</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>2177.933 VERN</td>
<td>Vern Hamberg x111</td>
</tr>
<tr>
<td>200 QSYS</td>
<td>Internal System User Profile</td>
</tr>
<tr>
<td>0.044 QEF5</td>
<td>Internal Spool User Profile</td>
</tr>
<tr>
<td>0.01 UIDR01</td>
<td>Internal Data Base User Profile</td>
</tr>
<tr>
<td>0.001 UIDR01</td>
<td>Internal Data Base User Profile</td>
</tr>
<tr>
<td>0.01 UIDR01</td>
<td>Internal Document User Profile</td>
</tr>
<tr>
<td>0.007 UIDR001</td>
<td>Security Officer</td>
</tr>
</tbody>
</table>
```

- The message (XDH0017) that corresponds to the report is:

```
Storage used by user profile VERN has grown by 2177.933 megabytes since the last baseline (snapshot) was taken.
```

Press Help (F1) to see more information.

```
Message ID: IDH0017  Severity: 00
Message type: Information
Date sent: 06/18/03  Time sent: 15:09:15
Message: Storage used by user profile VERN has grown by 2177.933 megabytes since the last baseline (snapshot) was taken. Objects owned by user profile VERN have grown by 2177.933 megabytes since the last baseline period. This indicates that this user profile or jobs using objects owned by this profile are being extended or new objects owned by this profile are being created. The text description for this profile is "Vern Hamberg x111".
```
6. IFS Storage: The "IFS Storage Increase" report shows the growth in disk space between the time the baseline information was captured and the current event. The top 20 IFS objects that have shown increased storage from the last collection session will be listed, allowing the system operator to take appropriate action. Baseline information is collected when DASD-Plus Alert is started and is collected again when a disk threshold is exceeded (which becomes the new baseline). The times shown in this report indicate the period of time the growth occurred.

- The shipped value report spooled file name is XCIFSSPC. This name can be changed with the SETDSKHTRA command. A sample is shown:

```
XCDH0010
XCIFSSPC

***************
*     IFS Storage Increase   *
***************

6/18/03
15:10:27

disk/HUINTER session number: 17
Data collected on 06/18/2003 at 14:59:00
and 06/18/2003 at 15:09:40

<table>
<thead>
<tr>
<th>Change (MB)</th>
<th>User</th>
<th>Object Type</th>
<th>ASF</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.000</td>
<td>VERN</td>
<td>*STMF</td>
<td>001</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.250</td>
<td>VERN</td>
<td>*STMF</td>
<td>001</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.250</td>
<td>VERN</td>
<td>*STMF</td>
<td>001</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Name: newfile2.savf
Path: /

Name: testoa_file
Path: /boxe/VERN

Name: newfile1.savf
Path: /boxe/VERN
```

- The message (XDH0018) that corresponds to the report is:

```
File /newfile2.savf of type *STMF has grown by 26.000 megabytes since the last baseline (snapshot) was taken
```

Press Help (F1) to see more information.

```
Additional Message Information

Message ID: XDH0018  Severity: 00
Message type: Information
Date sent: 06/18/03  Time sent: 15:10:27

Message: File /newfile2.savf of type *STMF has grown by 26,000 megabytes since the last baseline (snapshot) was taken.
File /newfile2.savf of type *STMF owned by profile VERN has grown by 26,000 megabytes since the last baseline period. This indicates that this object may be contributing to disk space utilization during this period.
```
The CHKDSKSPC command can be run manually. When it is run manually, it does exactly what the product does when an action is triggered. The command can be run while the Monitor is running. However, the Monitor goes into a suspend mode until the Checker has finished.

Use the following command:

S4IDP/CHKDSKSPC

Press F4 to prompt. Enter the ASP, and the configuration options are displayed. As you press Enter, more options appear. The following screen will be shown:

NOTES: The CHKDSKSPC command may take awhile to run, depending on the size of your system.

The configuration settings for the Checker can be overridden, for just one run, by prompting on this command. The parameters can be changed and will be used only during the run. Configuration settings will not be changed.

**Auxiliary storage pool**

Specifies the auxiliary storage pool to be checked. If you have one system ASP, or you do not need ASP-level reporting, use the *ALL option.

The possible values are:

- *ALL – Check disk space for all ASPs. This is the default.
- asp-number – Specify the ASP to be checked. The value ranges from 1 to 99.

If you have multiple ASPs, you can configure DASD-Plus Alert to check and report on each ASP separately. To configure DASD-Plus Alert for the system ASP, enter a 1 for this parameter. For all other ASPs, enter the number of that storage pool. A separate configuration data area is created for each ASP.
If you have previously configured DASD-Plus Alert, when you prompt the CHKDSKSPC command, the existing configuration settings will be shown. If you have not previously configured DASD-Plus Alert, a new configuration data area (XCDHCFG) is created and initialized with shipped values. If you configure a Monitor for a specific ASP, a 2-digit number will be appended to the name (XCDHCFG01 for ASP1).

**MESSAGE QUEUE**

Specifies the qualified name of the message queue where messages should be sent. The shipped value is *LIBL/QSYSOPR.

The possible values are:

- *CFG – Use the currently configured message queue.
- *NONE – Do not send any messages.

*NOTE:* You will need to set Print reports to *YES.

- message-queue-name – Specify the name and library of the message queue.
  
  The possible library values are:
  
  - *LIBL – All libraries in the job's library list are searched until the first match is found.
  - *CURLIB – The current library for the job is used to locate the name of the message queue. If no library is specified as the current library for the job, QGPL is used.
  - library-name – Specify the name of the library where the message queue is located.

**PRINT REPORTS**

Specifies whether to print reports when action is taken.

The possible values are:

- *CFG – Use the currently configured setting.
  
  *NOTE:* You will need to specify a message queue to which to send messages.
- *YES – Print reports when action is taken.
- *NO – Do not print reports when action is taken.

*NOTE:* If you specify *NO, the detailed reports on jobs, objects, users, and IFS will not be produced.

**OUTPUT QUEUE**

Specifies the job default output queue where the reports will be sent.

The possible values are:

- *CFG – Use the currently configured output queue.
- *SAME – The default output queue does not change.
• *USRPRF – The output queue specified in the user profile under which this job is initially running will be used.

• *DEV – The DEV parameter is determined by one of these printer file commands:
  o Create Printer File (CRTPRTF)
  o Change Printer File (CHGPRTF)
  o Override with Printer File (OVRPRTF).

• *WRKSTN – The default output queue used with this job is the output queue assigned to the workstation that is associated with the job at the time the job is started.

  NOTE: This assumes that the defaults were specified on the OUTQ parameter for the printer file, job description, user profile and workstation.

• output-queue-name – Specify the name and library of the default output queue used by the job.

  The possible library values are:
  o *LIBL – All libraries in the job's library list are searched until the first match is found.
  o *CURLIB – The current library for the job is used to locate the name of the output queue. If no library is specified as the current library for the job, QGPL is used.
  o library-name – Specify the name of the library where the output queue is located.

**Actions Run Time (Minutes)**

Specifies how long the detailed data collection should run after the threshold has been exceeded. The amount of data collected on a very busy system can be large. You should increase this time only if you have situations where the reports do not give you enough information to identify the job or object that is consuming disk storage. The shipped value is 5 minutes.

The possible values are:

- *CFG – Use the currently configured actions run time.
- actions-run-time – Specify the duration of detailed data collection. The value ranges from 1 to 60 minutes.

**Collect Temporary Space Data**

Specifies whether to collect data about temporary space used by jobs. The shipped value is *YES.

  NOTE: At least one of the data collection types must be selected.

The possible values are:

- *CFG – Use the currently configured setting.
- *YES – Collect job temporary space data.
- *NO – Do not collect job temporary space data.
**COLLECT USER PROFILE DATA**

Specifies whether to collect data about auxiliary storage assigned to objects owned by user profiles. The shipped value is *YES.

*NOTE:* At least one of the data collection types must be selected.

The possible values are:

- *CFG – Use the currently configured setting.
- *YES – Collect user profile auxiliary storage data.
- *NO – Do not collect user profile auxiliary storage data.

**COLLECT IFS DATA**

Specifies whether to collect data about storage used by IFS objects. The shipped value is *YES.

*NOTE:* At least one of the data collection types must be selected.

The possible values are:

- *CFG – Use the currently configured setting.
- *YES – Collect IFS object data.
- *NO – Do not collect IFS object data.

**COLLECT ACTIONS DATA**

Specifies whether to collect data about additional storage used by jobs and objects after the threshold was exceeded. The shipped value is *YES.

*NOTE:* At least one of the data collection types must be selected.

The possible values are:

- *CFG – Use the currently configured setting.
- *YES – Collect detailed data about jobs and objects.
- *NO – Do not collect detailed data about jobs and objects.
To start and configure DASD-Plus Alert email, use the following command:

S4IDP/CFGEMAIL

Press F4 to prompt. The following screen will be shown:

```
<table>
<thead>
<tr>
<th>Mail Host</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mail User name</td>
<td></td>
</tr>
<tr>
<td>Mail User password</td>
<td></td>
</tr>
<tr>
<td>Recipient list</td>
<td></td>
</tr>
</tbody>
</table>

+ for more values

<table>
<thead>
<tr>
<th>CC list</th>
<th></th>
</tr>
</thead>
</table>

+ for more values

<table>
<thead>
<tr>
<th>BCC list</th>
<th></th>
</tr>
</thead>
</table>

+ for more values

F9-Exit  F4-Prompt  F5-Refresh  F12-Cancel  F19-How to use this display
F24-More keys
```

```
Type choices, press Enter.

From ..................... CHASENTERTFIELDTECHNOLOGY.COM

Messages pending on other displays.
```

```
05/037
```
• Mail Host
  o Specifies the mail host that DASD-Plus Alert will use to send email (I.E. mail.s4isystems.com).

• Mail User name
  o Specifies the user that DASD-Plus Alert will use to connect to the mail host. A good idea would be to create a new user for DASD-Plus Alert to use.

• Mail User password
  o Specifies the password that DASD-Plus Alert will use to connect to the mail host. This password coincides with the user name above.
  o NOTE: The password will be encrypted when DASD-Plus Alert saves it.

• Recipient list
  o This is the list of valid email addresses that you want in the TO field of the email.
  o There can be up to 20 addresses.

• CC list
  o This is the list of valid email addresses that you want in the CC field of the email.
  o There can be up to 20 addresses.

• BCC list
  o This is the list of valid email addresses that you want in the BCC field of the email.
  o There can be up to 20 addresses.

• From
  o Default value is: DH@s4isystems.COM. This is not a valid address so DO NOT REPLY to this address.
  o You can setup a valid address so recipients of the email can reply.
After you have configured the email function that DASD-Plus Alert will automatically start sending emails to the list of recipients. The email will be in the format of the sample email below:

**NOTE**: You must have at least JavaTM 2 Platform, Standard Edition, v 1.3.1 on the system running DASD-Plus Alert to be able to receive emails.

**ENDING DASD-PLUS ALERT EMAIL**

To end DASD-Plus Alert, use the following command:

S4IDP/ENDEMAIL

After you run this command, DASD-Plus Alert will stop emailing the messages and attachments.

**NOTE**: If you had configured emailing and then run the end command you will have to reconfigure next time you want to send emails.
ENDING DASD-PLUS ALERT

To end DASD-Plus Alert, use the following command:

S4IDP/ENDDSKHTR

Press F4 to prompt. The following screen will be shown:

The DASD-Plus Alert Monitor will end when it is scheduled to wake up (at interval collection time).

NOTE: If the Checker is running, the Monitor will not end until the Checker is finished.

AUXILIARY STORAGE POOL

Specifies the auxiliary storage pool whose Monitor to end.

The possible values are:

• *ALL – End the job that is monitoring all ASPs. This is the default.
• asp-number – Specify the ASP whose Monitor to end. The value ranges from 1 to 99.

If you have multiple Monitors, you need to end each one separately.
CHAPTER 3
TIPS AND RECOMMENDATIONS

This section describes various tips in the use of DASD-Plus Alert and recommendations on getting the most out of the product.

SETUP AND CONFIGURATION

The following tips are recommended when initially configuring DASD-Plus Alert:

1. To isolate messages and report output from other work happening on your iSeries, create message queues and output queues for DASD-Plus Alert. If you would like to separate notification of a disk spike (i.e. messages/reports generated by the Monitor) from information about the cause of the disk spike (i.e. message/reports generated by the Checker), then create two message queues and two output queues. These objects should then be specified on the CFGDSKHTR command.

2. If you have multiple auxiliary storage pools, configure and start DASD-Plus Alert for each ASP you want to monitor, rather than using the *ALL option.

3. If you are evaluating the product and simply want to see a sample of the report output, there are two options. The first is to configure DASD-Plus Alert so that it is very likely to exceed a threshold. For example, if you specify the threshold as a *PERCENT event (TRIGGER parameter), then use ‘1’ for the AMOUNT parameter. The second option is to use the CHKDSKSPC command directly. This command will collect data, do the analysis, and generate reports for the current state of your system. You need to run CHKDSKSPC twice in order to get user profile and IFS reports. You might need to create objects in a library or a directory in between the runs of CHKDSKSPC.

4. In general, use a low value for the ACTRUNTIME parameter on the CFGDSKHTR and CHKDSKSPC commands. This parameter determines how long detailed data collection runs. Since DASD-Plus Alert turns on a low-level data collection mechanism to determine what objects are currently growing, it can accumulate a significant amount of data in a very short time. The longer this data collection runs, the more overhead you will see on your system (disk space and processing time) and the time to generate reports will be longer.

5. If your system has very little ongoing activity in the integrated file system (IFS), you may want to suppress the collection of that data on the CFGDSKHTR command.
If you have configured DASD-Plus Alert to monitor individual ASPs, you can use the SETDSKHTRA command to give distinctive names to those reports by appending the ASP number. This will make it easier to identify what ASP the report is for without having to open the report and look at the headings.

**Operation**

The following tips are recommended when running DASD-Plus Alert:

1. If you want to end the Monitor immediately, you can find the job in WRKACTJOB and prompt option 4 to end it with the *IMMED option. However, you should be sure to end any detailed data collection first. You can do this by executing the following command:

   ENDPEX SSNID(XCDHSESS) OPTION(*END) DTAOPT(*DLT)

2. You can use MS Excel and the data in file S4IDP/XCASPI to see short term disk usage. Just bring the data down to Excel, perhaps with the iSeries Access data transfer add-in. Then create a chart based on the data.

**Support**

S4i Systems Inc. is committed to providing our customers with support as problems or questions arise. Support includes minor enhancement releases and upgrades which might be necessary as OS/400 releases become available.

**Contact Information**

Internet

Web support pages are maintained at http://www.s4isystems.com. Updated documentation, how-to's, FAQs, and a list of known problems will become available as needed.

E-mail

To contact technical support by email, send email requests to support@s4isystems.com.

Fax

To contact technical support by fax, send your request to (949) 366-5338.

Phone

You can call 949-366-5234 for technical support. Telephone support is available from 8:00 AM to 5:00 PM PST. Emergency support is available anytime.
INDEX

*ALL 8, 13, 17, 28, 35, 37
ASP 4, 7, 8, 13, 15-17, 20, 28, 29, 35, 37, 38
Before Contacting Technical Support ii
Email ii, iii, 5, 32-34, 38
How to Contact Documentation iii
How to Contact Technical Support iii
IFS 4, 5, 10, 12, 15, 16, 20, 23, 27, 29, 31, 37
INTRODUCTION 1
Mail iv, v, 33, 38
Mailing Information to Technical Support iii
postscript i
    ps 38
Screen Panel 6