What problem does DASD-Plus Alert address?

DASD-Plus Alert addresses the common problem of "disappearing" disk space. Modern, complex iSeries and System i applications can consume disk storage so rapidly and excessively that you see a "spike" in disk utilization. Finding which jobs are using up disk storage and for what objects, is a difficult and time consuming task - a task that, if not completed quickly enough, can lead to application slowdowns or system crashes.

What kinds of events trigger disk spike problems?

Many application and database problems can lead to disk spikes, including:

1. Database queries that create large, temporary indexes (access paths)
2. Database queries that create large temporary spaces to implement hash joins or grouping
3. Applications that use heap storage but do not free it (memory leaks)
4. Java-based applications that create a large number of objects but that do not get reclaimed because of dangling object references
5. Applications that use the Integrated File System (IFS) and create large stream files but do not always delete them when they are done
6. Users who create copies of data in IFS as backups not realizing how much disk space they consume
7. Jobs caught in an infinite loop writing printing and creating very large spool files
8. Applications that write to log files that do not get cleared often or at all
9. Data collected by IBM performance and trace tools

What does DASD-Plus Alert do?

DASD-Plus Alert provides real-time disk space monitoring, notification, analysis, and diagnostic reporting. This allows the system operator or application management team to react quickly when usage problems surface.

What are the main benefits of DASD-Plus Alert?

The DASD-Plus Alert utility's main benefit is that it allows system administrators to react immediately when a disk spike occurs rather than having to go through a long, tedious, and error prone manual process which, if not done in time, could allow disk spikes to reduce system performance and availability.

What information does DASD-Plus Alert give me when there is a problem?

DASD-Plus Alert monitors your system at all times, keeping an eye on disk space utilization. If the amount of free disk space suddenly reduces, DASD-Plus Alert reacts automatically - to track down information about the activity causing the problem. It then generates reports telling you what users, what jobs, and what objects are consuming the space.

How long does it take DASD-Plus Alert to find the cause of the problem?

All of this investigation is done in a matter of minutes, allowing your team to react quickly and with pinpoint accuracy. This allows you to avoid lengthy or dangerous problems while allowing focused actions to be taken that impact the fewest people.

How much system overhead does DASD-Plus Alert require?

The DASD-Plus Alert utility has been designed for minimal impact (less than 1% CPU) on your system while actively monitoring disk space use. If a sudden spike occurs, additional data collection and analysis is done to determine the root cause of the problem. This requires additional system resources, but should not take more than 10% of a single processor for more than 5 minutes on average. The specific amount of resource will depend on how you configure DASD-Plus Alert.

How long does DASD-Plus Alert take to install and configure?

The installation and configuration of DASD-Plus Alert is very simple. Typically, it takes less than half an hour from the time the CD is put in your iSeries or System i to when DASD-Plus Alert is fully operational and monitoring your system.

How much control will I have over DASD-Plus Alert's configuration?

You may specify how frequently DASD-Plus Alert checks on your disk storage. You may also specify the threshold at which DASD-Plus Alert will notify you of a problem. This threshold can be set either in actual megabytes consumed, or as percent of total disk storage. For DASD-Plus Alert notification purposes, you may specify the message queue to receive a threshold notification message and an output queue for the diagnostic reports.

Do I have to stop and restart DASD-Plus Alert when a change to the configuration is done?

No. The change to DASD-Plus Alert is automatic and does not require the program to be ended and restarted.

Can I make a configuration change and have it active for one execution of DASD-Plus Alert?

Yes. The parameters can be changed on the start DASD-Plus Alert command. The parameters will be in effect until DASD-Plus Alert is ended or the configuration is run.

Does DASD-Plus Alert also track space being used in the Integrated File System (IFS)?

Yes. If a stream file in IFS grows so much that it triggers DASD-Plus Alert diagnostics and analysis, that file's growth will appear in the object growth report.