
Rule DAS185: APPLICATIONS ACCESSING VOLUME DURING MEASUREMENT INTERVAL WITH WORST PERFORMANCE

Finding: CPEXpert identifies the applications accessing the volume during the the measurement interval with the worst performance.

Impact: This finding is used to select applications for potential rescheduling, file movement, or design changes. This rule is applicable only if CPEXpert is performing "expanded" analysis of the data.

Logic flow: The following rules cause this rule to be invoked:
DAS100: Volume with worst overall performance

Discussion: CPEXpert lists the applications accessing the volume with the worst performance during the measurement period with the worst performance being analyzed. The list is ordered descendingly by I/O operations, so you can identify the applications that probably had the most impact on the volume.

As described in Section 5, the SMF Type 30(Interval) information might not be synchronized with the SMF Type 70(series) information. In this case, the identification of applications may not correctly identify the applications with the most I/O operations to the volume. However, if the analysis produces the same results after analyzing more than one day's measurement data, you can be more comfortable that the applications are correctly identified.

In some cases, the Type 30(Interval) data does not reflect all I/O activity to a device. This normally is caused by the Interval records not being written for all address spaces (such as started tasks running in SYSSTC service class). Consequently, you should use the output from DAS180 with care.

However, if the analysis produces the same results after analyzing more than one day's measurement data, you can be more comfortable that the applications are correctly identified.

Suggestion: In many cases, once the applications are identified, either applications personnel or systems personnel will verify whether the particular applications are responsible for the majority of the I/O operations to the particular volume.

Once you are comfortable that the applications are responsible for the majority of the I/O operations to the "worst" performing device, you can take

action to (1) reschedule the applications to minimize contention, (2) examine the files referenced by the applications, or (3) change the way in which the applications access their files.