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**Rule DAS180: APPLICATIONS ACCESSING VOLUME WITH WORST PERFORMANCE**

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**Finding:** CPExpert identifies the applications accessing the volume 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 entire measurement period 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.

The following example illustrates the output from Rule DAS180:

RULE DAS180: APPLICATIONS ACCESSING THE VOLUME WITH WORST PERFORMANCE

The following applications, executing on system SYSF, accessed VOLSER SYF064 during the overall measurement interval (ranked by the number of I/O operations):

JOB	STEP	SERVICE CLASS	TYPE 30 START	INTERVAL END	EXCP RATE	AVG CONNECT TIME PER SEC
CXND9940	CXN99410	BATPMED.	0:00:00	1:00:00	203.3	0.269
CXND9940	CXN99410	BATPMED.	23:00:00	0:00:00	164.0	0.218
CXHD3015	CXH31550	BATPROD.	23:11:05	0:00:00	80.5	0.107
CXHD3015	CXH31550	BATPROD.	0:00:01	0:27:48	78.6	0.104
DB2HDBM1	GRP#PDBH	CICSHI..	7:00:00	8:00:00	0.3	0.000
DB2HDBM1	GRP#PDBH	CICSHI..	8:00:00	9:00:00	0.1	0.000
BC888222	BCVPGP15	BATPROD.	13:14:57	13:15:11	1.4	0.002
CXPD9042	CXP92000	BATPROD.	5:30:00	5:30:03	2.6	0.005
NALBM774	CXP12020	WLMLow..	3:29:50	3:30:08	0.3	0.001
N0932L0F	CXP12018	WLMLow..	4:45:00	4:45:05	1.2	0.002

**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.