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**Rule CIC108:** Sum of system tasks plus user tasks was high |

**Finding:** CPExpert has detected that the sum of system tasks plus user tasks was high relative to the MXT (or MAXTASKS) value specified for the region. |

**Impact:** This finding has a NO IMPACT on the performance of the CICS region, but it is an “early warning” that a problem might occur. |

**Logic flow:** This is a basic finding, based upon an analysis of the daily CICS statistics. |

**Discussion:** The MXT operand in the System Initialization Table (SIT) and the MAXTASKS operand in the CEMT transaction limit the total number of concurrent user tasks in the CICS region. Please refer to Rule CIC101 for additional information about the MXT and MAXTASKS operands. |

Specifying a “correct” value for these operands is a balance between (1) specifying a value that is too high and (2) specifying a value that is too low. |

If the MXT or MAXTASKS value is too high, storage is wasted and (with Goal Mode) unnecessary overhead is generated. The logic associated with Rule CIC104 deals with a situation in which the MXT or MAXTASKS value is too high. |

If the MXT or MAXTASKS value is too low, CICS will fail to attach tasks when the number of tasks reaches the MXT value. Rule CIC101 provides an indication of the number of times that the number of active tasks reached the MXT or MAXTASKS value. |

This indication that the MXT or MAXTASKS was reached is acceptable for many CICS regions. However, reaching this limit might be unacceptable for some critical CICS regions. Installation personnel need to be aware of the possibility of a too-low MXT or MAXTASKS value for critical CICS regions. The logic associated with Rule CIC108 can be used to provide an alert that the value might be too low. |

The XMGMXT value in the CICS Transaction Manager Global Statistics (MXG file CICXMG) contains the value of the MXT or MAXTASKS specification. The DSGPNT value in the CICS Dispatcher Domain Global Statistics (MXG file CICDS) contains the value of the peak number of active system tasks plus user tasks. |

CPExpert computes the percent of active system tasks plus user tasks (DSGPNT) as a function of the value of the XMGMXT keyword. When the |

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percent of active tasks is greater than the **PCTMXTHI** guidance variable, CPEXpert produces Rule CIC108 to report this conclusion.

The default value for the PCTMXTHI guidance variable is 1000%, which effectively “turns off” the logic in Rule CIC108 (the percent cannot be higher than 1000%). Since the rule is used only for special purposes, it is turned off by default. You can specify an appropriate percentage if you have critical CICS regions and wish to be alerted that the total number of active tasks is high relative to the MXT or MAXTASKS specification. CPEXpert will produce Rule CIC108 when the number of active tasks reaches the specified percent of MXT.

**Suggestion:** CPEXpert suggests that you review the information provided by Rule CIC108 and determine whether the number of active tasks is too high relative to the limit set by the MXT or MAXTASKS specification.

The value for the MXT or MAXTASKS specification normally should be sufficiently high that tasks are not restricted by the tasks limit. This particularly is true for important CICS regions, unless you have deliberately specified a lower MXT or MAXTASKS value for storage constraint considerations.

**Reference:** *CICS/ESA Version 4.1.1 Performance Guide*: Section 4.7.3, Appendix A.1.4, and Appendix C.7

*CICS/TS Release 1.1 Performance Guide*: Section 4.7.3, Appendix 1.1.28, and Appendix 4.8.

*CICS/TS Release 1.2 Performance Guide*: Section 4.7.4, Appendix 1.1.4, and Appendix 1.1.29.

*CICS/TS Release 1.3 Performance Guide*: Section 4.11.3, Appendix 1.1.5, and Appendix 1.1.32.

*CICS/TS for z/OS Release 2.1 Performance Guide*: Chapter 23 (MXT) and Appendix A (Table 131).

*CICS/TS for z/OS Release 2.2 Performance Guide*: Section 4.10.3 Setting the maximum task specification (MXT)