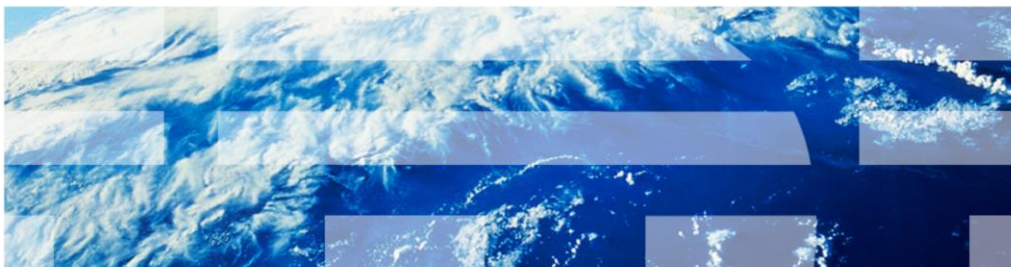


## IBM Tivoli Monitoring V6.2

Troubleshooting the common monitoring agent for i5/OS problems



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IBM Tivoli® Monitoring V6.2, Troubleshooting the common monitoring agent for i5/OS™ problems. In this module, you learn about the steps involved in troubleshooting some of the common problems encountered by i5/OS monitoring agent. You also learn the steps for collecting diagnostic trace logs for i5/OS monitoring agent.

## Assumptions

Before you proceed, the module designer assumes that you have these skills and environment:

- General system administration of i5/OS or IBM i platform
- Knowledge of Tivoli Monitoring agent for i5/OS

The module designer assumes that you have the general system administrations skills on i5/OS or IBM i platform and knowledge of Tivoli Monitoring agent for i5/OS.

## Objectives

When you complete this module, you can perform these tasks:

- Troubleshoot the common reasons for the abnormal end of the monitoring agent for i5/OS
- Troubleshoot the high processor utilization of the agent job CT\_AGENT

After completing this module, you can perform these tasks:

- Troubleshoot common problems encountered by the monitoring agent for i5/OS
- Troubleshoot the high processor utilization of the agent job CT\_AGENT

## Troubleshooting the agent job abnormal end (1 of 5)

The possible reasons for abnormal end of the agent job CT\_AGENT:

- Large number of disks exist on i5/OS system
- Large number of temporary user space objects in QAUTOTMP library
- The agent is installed on a non-supported operating system level
- The agent job encounters some exceptions

The possible reasons for abnormal end of the agent job CT\_AGENT:

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- The agent job encountered some exceptions

## Troubleshooting the agent job abnormal end condition (2 of 5)

**Problem:**

- i5/OS system has large number of disk units
- Situations and historical data collection on OS400\_Disk attribute group are defined and started
- The agent job fails during the data collection on disk units

**Resolution:**

- Stop the situations on OS400\_Disk attribute group and clear **Run at start** to disable the situations from autostart when the agent restarts
- Stop the historical data collection on OS400\_Disk attribute group and unconfigure it
- Restart the agent
- Use i5OS\_Disk attribute group instead of OS400\_Disk attribute group in situations and historical data collection to monitor disk units

If the i5/OS system has large number of disk units and situations or historical data collection defined and started on OS400\_Disk attribute group, the agent job might end abnormally during the data collection on disk units. To resolve this problem, stop the situations on OS400\_Disk attribute group and configure them not to start automatically on Tivoli Enterprise Portal.

If historical data collection on OS400\_Disk attribute group is configured and started, stop the historical data collection and unconfigure it.

Restart the agent to resolve this problem. Use the i5OS\_Disk attribute group instead of the OS400\_Disk attribute group in situations and historical data collection to monitor disk units.

## Troubleshooting the agent job abnormal end condition (3 of 5)

**Problem:**

- During the data collection on active or inactive jobs, the agent job creates temporary user spaces with name prefix of JOBS or LJOB to store the data on jobs
- When there are 36 JOBS\* or LJOB\* user space objects exist in QAUTOTMP library, the agent job fails to create extra user spaces of this type and abnormally ends

**Resolution:**

- Delete all the user space objects except QA1CERRUSP in QAUTOTMP library
- Restart the agent
- Always end the agent in a controlled mode with default 90-seconds delay that delete the temporary user space objects

During the data collection on active or inactive jobs, the agent job creates temporary user spaces with name prefix of JOBS or LJOB to store the data on active or inactive jobs.

When there are 36 JOBS or LJOB user space objects exist in QAUTOTMP library, the agent job fails to create extra user spaces with same name prefix and ends abnormally.

To resolve this problem, delete all the user space objects except QA1CERRUSP in QAUTOTMP library. After deleting the user space objects, restart the agent.

Always end the agent in a controlled mode with 90 seconds delay. If the agent is ended in a controlled mode, the agent deletes user space and other temporary objects created during it's operation.

## Troubleshooting the agent job abnormal end condition (4 of 5)

**Problem:**

- If the agent is installed and started on a non-supported level of Operating System, agent job might fail to start
- The agent encounters the exception MCH42B5 (Program or module not convertible)

**Resolution:**

- Uninstall the agent
- Install compatible level of the agent for that operating system level
- Upgrade the monitoring server and portal server to equal or higher level of the agent

When an older level of the agent is installed on a higher level of the operating system, the agent job might fail to start. The agent job fails with the exception MCH42B5 (Program or module not convertible). The exception MCH42B5 is logged in the CT\_AGENT job log.

To resolve this problem, uninstall the agent. Contact IBM Support to get the compatible level of the agent for the operating system level.

Install the compatible level of the agent.

You might need an upgrade of Tivoli Enterprise Monitoring Server and Tivoli Enterprise Portal Server to an equal or higher level of the agent for the agent to work properly.

## Troubleshooting the agent job abnormal end condition (5 of 5)

- **Problem:**

- The agent job encounters some exceptions
- The agent job log or spool file contains exception messages with message ID that starts with MCH or CPF

- **Resolution:**

- Identify the description of the exception message ID with **DSPMSGD** command
- Generally, QCPFMSG message file in QSYS library contains the descriptions for the exception messages
- The message description might point to the reasons for the agent job failure

The agent job might encounter some operating system exceptions that affect the operation of the agent. The agent job log or spool file contains exception messages with exception IDs that start with MCH or CPF.

To diagnose the root cause of the problem, identify the exception message identifiers in CT\_AGENT job log. Run the DSPMSGD command on the i5/OS command line with a message ID to find the description of the message. Alternatively, search the web or IBM Support Portal to get the description of the message ID. The message description might point to the reasons for the agent job failure.



## Troubleshooting the high processor utilization of the agent process

### Problem:

- The agent job CT\_AGENT uses processor cycles
- The system performance is affected because of high processor utilization of the agent job

### Resolution:

- Perform these steps to identify the thread that causes the high processor utilization:
- Run the command **WRKACTJOB SBS(QAUTOMON)**
- Use option 5 to open the **Work with job** screen
- Use option 20 to open the **Work with threads** screen
- Identify the thread that uses high processor cycles
- Use option 10 to display the call stack of the thread
- The thread call stack displays the function names that cause the high processor utilization

To diagnose the high processor use of the CT\_AGENT job, run the command WRKACTJOB SBS(QAUTOMON) to display the CT\_AGENT job. Use option 5 to open the **Work with job** screen to verify the job details of the CT\_AGENT job. Use option 20 to open the **Work with threads** screen. Identify the thread that uses high processor cycles, Use option 10 to display the call stack of the thread. The thread call stack displays the module names and function names that cause the high processor use. The agent module names start with the name KA4. The Tivoli Enterprise Monitoring Agent (TEMA) modules that are part of the agent start with the name KRA.

The basic services portion of the TEMA modules starts with the names KBB, KDC or KDE. Search for the APARs and Technotes by using the function names in the call stack to identify the known problems.

## Summary

Now that you completed this module, you can perform these tasks:

- Troubleshoot the common reasons for the abnormal end of the monitoring agent for i5/OS
- Troubleshoot the high processor utilization of the agent job CT\_AGENT

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