

IBM Tivoli Monitoring V6.2

Dynamically modify trace settings



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IBM Tivoli® Monitoring V6.2, Dynamically modify trace settings - How to dynamically modify trace settings for an IBM Tivoli Monitoring component.

While working with a Tivoli Support engineer, you might be asked to set specific tracing on an IBM Tivoli Monitoring component. To invoke the trace settings, the affected component must be stopped and started. However, because of customer Service Level Agreements (SLA) the Tivoli Support engineer might not be permitted to stop and start that component. This presentation provides the necessary steps to set tracing without experiencing any downtime for that component.

Objectives

When you complete this module, you can perform the following tasks:

- Use the ras1 command to determine current trace settings
- Use the ras1 command to set the correct trace settings for component equipment

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What are the requirements?

- Local log-on credential for the workstation
- `http://hostname:1920`

From the IBM Tivoli Monitoring Service Console you can access the Tivoli Enterprise Monitoring Servers (TEMS), the Tivoli Enterprise Portal Server (TEPS), agents, and other IBM Tivoli Monitoring components.

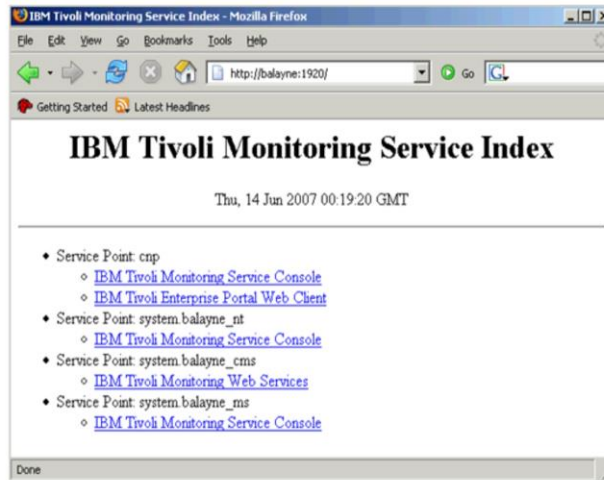
This method of modifying trace settings on the monitoring server is the most efficient method since it allows you to do so without stopping and starting this component. Settings take effect immediately and are not persistent.

To use this utility you need to know a local log-on credential, the user ID and password for the workstation.

This method uses the IBM Tivoli Monitoring Service Console. The Service Console is accessed using a web browser by entering the web address **http://hostname:1920**. The *hostname* is the host name or IP address of the system where the IBM Tivoli Monitoring component is running.

IBM Tivoli Monitoring Service Index

- `http://hostname:1920`



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The utility displays information about the components that are currently running on this machine.

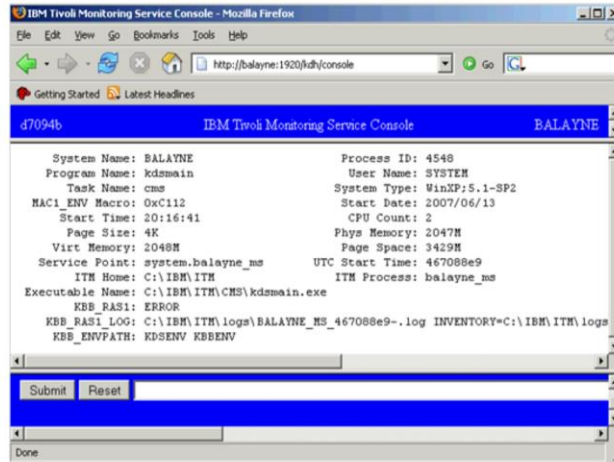
This screen shows that the Tivoli Enterprise Portal Server (cnp), a Windows® OS ageTnt (_nt), and the Tivoli Enterprise Monitoring Server (ms) are running on this system.

Select the link following the component for which you want to modify the trace settings. In the previous view if you want to modify tracing for the Tivoli Enterprise Monitoring Server, select the **IBM Tivoli Monitoring Service Console** link following the **Service Point: system.balayne_ms** item.

When you select one of the links, you are prompted for a user ID and password to access the system. This prompt is for any valid user that has access to the system.

IBM Tivoli Monitoring Service Console

- Service Console Display



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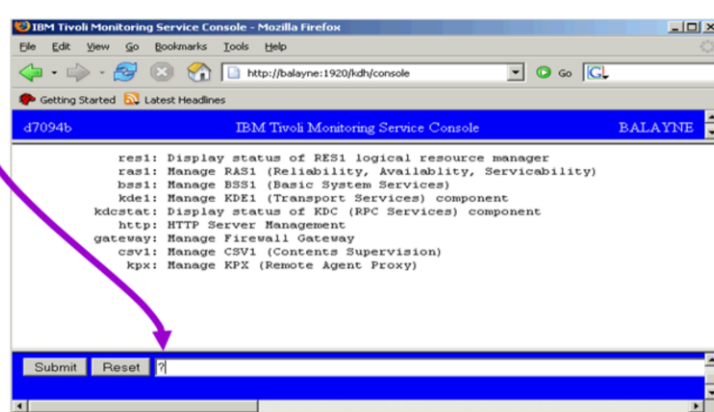
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After you log in, a screen like the Service Console Display in the browser window is displayed.

List supported commands

- Typing ? lists the supported commands



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If you type **ras1** in the text box at the bottom of the screen, the help for this command displays.

The **set** option (**ras1 set**) turns on the tracing for the unit or component identified in the command, but does not affect existing tracing. The syntax of the command is similar to the syntax used to set trace settings in the **env** (Windows) or **ini** (UNIX®) files. The settings contained in the files are persistent and are a complete set of trace definitions. The values set using the service console are added to the existing settings and are not persistent.

Example formats:

(UNIT:kbbacd1 Flow State) - turns on the flow and state tracing for the files `kbbacd1*` in the IBM Tivoli Monitoring component.

Error - turns the error trace on for all aspects of the component.

(COMP:kdh Detail) - turns the detail tracing on for all of the files identified as part of the `kdh` component.

These options can be combined to affect tracing in several files or components; for example **ras1 set (UNIT:xxx ALL) (UNIT:yyy Detail)**. This command enables full tracing for the `xxx` class of the component and low-level detailed tracing on the `yyy` class of the component.

Modifying RAS1 trace settings (1 of 2)

- Display current trace settings: RAS1 List
- Available tracing:
 - ALL
 - Flow
 - ERROR

The **ras1 list** command displays the current trace settings. Run an initial list to determine what changes you have made to the tracing settings.

The following list describes the types of tracing available:

- **ALL** - Provides all trace levels. Shown as **ALL** when using the **ras1 list** command.
- **Flow** - Provides control flow data describing function entry and exit. Shown as **FL** when using the **ras1 list** command.
- **ERROR** - Logs internal error conditions. Shown as **ER** when using the **ras1 list** command. The output also shows as **EVERYE+EVERYU+ER**.

Modifying RAS1 trace settings (2 of 2)

Additional settings

- Detail - Shown as Det
- INPUT - Shown as IN
- Metrics - Shown as ME
- OUTPUT - Shown as OUT
- State - Shown as ST
- ALL

Other settings that provide component specific information when using the **ras1 list** command:

- **Detail** - Shown as **Det**
- **INPUT** - Shown as **IN**
- **Metrics** - Shown as **ME**
- **OUTPUT** - Shown as **OUT**
- **State** - Shown as **ST**

Setting trace to **ALL** includes every trace point defined for the component. This setting might result in a large amount of trace data. If you are provided a more specific setting, use it. The **ALL** option is sometimes necessary to isolate a problem. It is the equivalent of setting "Error Detail Flow State Input Output Metrics".

Turning Off RAS1 tracing

- Example: `ras1 set (UNIT:kbbcrd ANY)`
- Turn off Service Console access
Add **HTTP_CONSOLE:N** to KDC_TRANSPORT or KDC_FAMILIES

Turning Off RAS1 tracing.

The option to turn the tracing off is **ANY**. For example, to turn off tracing for the kbbcrd class of the Windows OS agent, use the command **ras1 set (UNIT:kbbcrd ANY)**.

Note: In some functions, tracing continues even after you turn it off dynamically. The tracing controls are evaluated at the beginning of a function. If the control is in a **do forever** type event processing, diagnostic tracing continues until the IBM Tivoli Monitoring system is stopped and started.

Note: Consider the Service Console a security risk. Entry is controlled by a user ID and password that provide one barrier. No new functions can be performed, but the trace controls can be set so that a very high volume of trace data is created. That setting can theoretically impact the ability to service normal work. The initial display also lists services that might expose more than is required. If this is a problem, the initial console display can be prevented by adding **HTTP_CONSOLE:N** to KDC_TRANSPORT or KDC_FAMILIES at the front.

Summary

Now that you have completed this module, you can perform the following tasks:

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