

BugTrapper Agent User's Guide

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Running the BugTrapper Agent

The BugTrapper Agent is a standalone executable module, which the developer provides to his or her customer along with a Trace Control Information (TCI) file in order to trace an application.

The results of the BugTrapper Agent trace are written to a log file which the developer can then analyze with BugTrapper to pinpoint the bug. Analyzing the trace log file is described in the *BugTrapper User's Guide*.

Note: You might find it useful to include a copy of this document when you send the BugTrapper Agent to a customer.

➤ **This guide includes the following sections:**

Installing the BugTrapper Agent, page 2, describes how to install the BugTrapper Agent at a customer site.

Starting the BugTrapper Agent, page 2, describes the first step performed by the customer to run the BugTrapper Agent.

Specifying the TCI File, page 4, describes how to specify the trace control information that will be used in the trace.

Specifying the Log File, page 4, describes how to specify the log file where the trace information will be written.

Dumping Trace Information to a Log File, page 4, describes how to specify the time intervals at which trace information should be dumped to the log file.

Adding a Comment to a Log File, page 6, describes how to add comments to the log file. Comments can be added at any time, even while an application is running and being traced.

Exiting the BugTrapper Agent, page 6, describes how to close the BugTrapper Agent.

Installing the BugTrapper Agent

➤ **To install the BugTrapper Agent:**

Double-click the file **Bta_zip.exe**. This self-extracting file installs the BugTrapper Agent on your computer. At the end of the installation, you can launch the BugTrapper Agent, as described below.

Starting the BugTrapper Agent

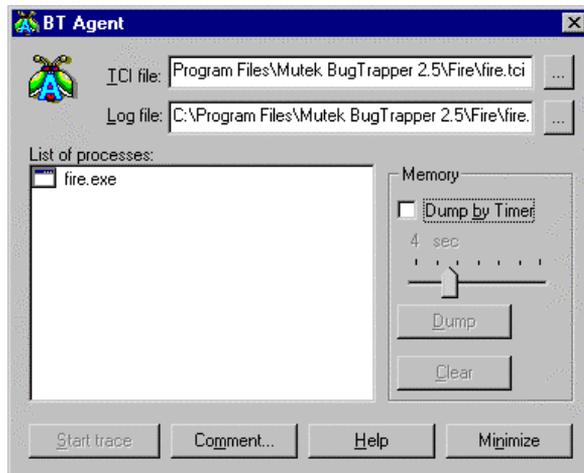
The BugTrapper Agent is an easy-to-run standalone application. To trace an application you need both the BugTrapper Agent and a Trace Control Information (TCI) file. The TCI file is prepared by a developer and contains information about the executables and functions to be traced.

If you have received both the BugTrapper Agent and a TCI file from your application developer, you can start the BugTrapper Agent. Once the BugTrapper Agent is started, you specify the TCI file and log file (both described on page 4), and the BugTrapper Agent begins tracing.

Once you have launched the BugTrapper Agent, you can stop and resume tracing as required.

➤ **To start the BugTrapper Agent:**

Select Start | Programs | MuTek BugTrapper 2.5 | MuTek BugTrapper Agent 2.5. If this is the first time you are starting the BugTrapper Agent, the BugTrapper Agent window is displayed, as shown below:



The *BT Agent* window is displayed in the following two situations:

- When the *BT Agent* window contains incorrect field values (for example, when the BugTrapper Agent is launched for the first time and all the fields are empty).
- When you manually display the window by double-clicking the **BugTrapper Agent** icon  in the Windows task bar, or by right-clicking the icon and then selecting **Open** from the popup menu.

In all other situations, the BugTrapper Agent automatically begins tracing when launched, using the previously defined settings. The **BugTrapper Agent** icon  is displayed in the Windows task bar. The *BT Agent* window is not displayed.

This means that novice users need not be aware of the BugTrapper Agent at all, while more expert users have the ability to control the way that the BugTrapper Agent runs.

BugTrapper Agent Trace Behavior

Once you have specified the TCI file (described on page 4) and log file (described on page 4), BugTrapper Agent automatically begins tracing.

Whenever an executable specified in the TCI file is running at the same time as the BugTrapper Agent, the process of that executable is automatically traced. This means that you can launch the BugTrapper Agent either before or after the executable that needs to be traced. You can even run multiple processes of the same executable and all of them will be traced simultaneously.

Whenever an executable that is specified for tracing is launched, tracing is automatically started on all currently open processes of that executable, even if they were not previously being traced.

You can stop and resume tracing (using the **Start trace/Stop trace** button) when you know that certain parts of the trace do not contain important data. Stopping the trace may improve system performance.

Specifying the TCI File

A TCI file contains the trace options for the executable. The developer should have sent you the TCI file. In most cases, you will only need to specify the TCI file the first time that you launch the BugTrapper Agent.

➤ **To specify the TCI file:**

In the **TCI file** field, specify the full path of the TCI file that you want to use or click the **Browse** button to display a file selection window from which you can select it.

A log file of the same name (with the file extension .log) is automatically displayed in the **Log file** field. The executable(s) to be run (as indicated by the TCI file) are listed in the center of the *BT Agent* window.

Specifying the Log File

The trace log file is used for bug analysis by the developer. By default, a trace log file is created with the same name and path as the selected TCI file (with the file extension .log). If required, you can change the log file from the default as described below. In most cases, you will only need to specify the log file the first time that you launch the BugTrapper Agent.

➤ **To specify the log file:**

In the **Log file** field, specify the full path for the trace log file that you want to use. Either use the default log file or click the **Browse** button to display a file selection window from which you can select it.

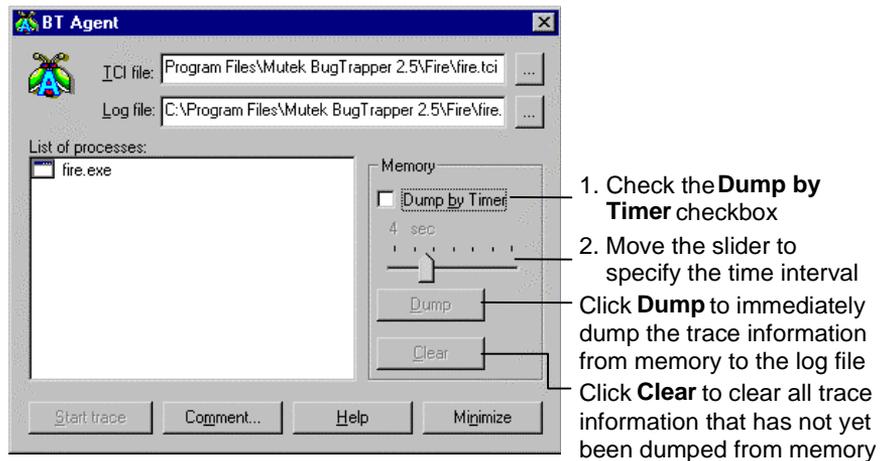
Dumping Trace Information to a Log File

The BugTrapper Agent dumps the buffer of traced objects (functions, lines and variables) to the log file as follows:

- Whenever an application crashes. This means that there is usually no need to modify dump parameters, as described on the following page.
- Whenever you exit the BugTrapper Agent.
- Whenever the traced process exits.

- Whenever you click the Dump button in the BT Agent window. For example, if you see a strange behavior in the traced application (not a crash), you can click the Dump button to dump the buffer containing the functions which describe this behavior to the log file. You can then add comments to the log file, as described on page 6.
- At specified time intervals, which you define by checking the Dump by Timer checkbox in the BT Agent window, and then moving the slider to specify the time interval. In most cases, you do not need to use this option.

Note: The smaller the time interval specified, the more system performance is affected. It is highly recommended to set a value higher than zero in order to not markedly affect performance.



When the dump is activated for the first time after the BugTrapper Agent is launched, the BugTrapper Agent overwrites the old log file (if one exists). Once the trace process has been started, the new information is appended to the existing log file.

Note: When the buffer is full and new data is still coming through, this new data replaces the oldest data in the buffer. Refer to the *BugTrapper User's Guide* for further details.

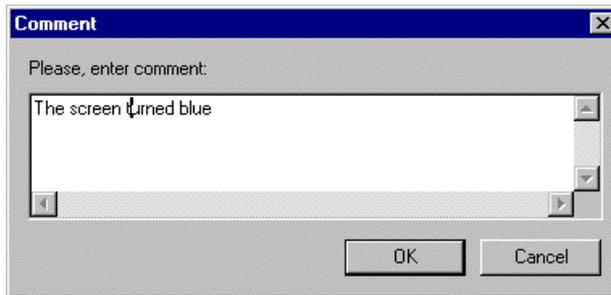
You can click the **Clear** button to remove all trace information that has not yet been dumped to the log file. The cleared information is not stored in the log file unless the **Dump** button is clicked first.

Adding a Comment to a Log File

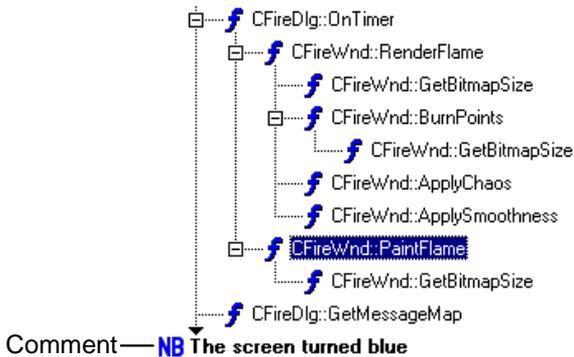
You can add comments to the log file before, after and while the traced program is running. For example, you may want to use a comment to bring the developer's attention to an unusual occurrence.

➤ **To add a comment to the log file:**

1. Click the **Comment** button in the *BT Agent* window. The following dialog box is displayed:



2. Type in a comment and click **OK**. The comment is displayed in the Trace Tree when the log file is opened in BugTrapper for analysis of trace information, as shown below:



Exiting the BugTrapper Agent

Right-click the **BugTrapper Agent** icon  in the Windows icon tray and select **Exit** from the popup menu.



Tip: You can click the **Minimize** button to minimize the *BT Agent* window to an icon in the Windows icon tray. Double-click the icon to redisplay the *BT Agent* window.