Trend Micro
Case Diagnostic Tool 2.5

Getting Started Guide

LEGAL NOTICE: Trend Micro Incorporated reserves the right to make changes to this document and to the products described herein without notice. Before installing and using the software, please review the readme files, release notes, and the latest version of the applicable user documentation, which are available from the Trend Micro Web site at:

http://www.trendmicro.com/download

Release Date: March 2009

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Introducing the Case Diagnostic Tool

The Trend Micro Case Diagnostic Tool (CDT) is a facilitating tool which helps the Trend Micro Service Engineering Group, Core Team, Technical Support Team, and customers diagnose problems in Trend Micro products. It aims to shorten the diagnostic communication process between Trend Micro and its customers.
CDT collects all necessary debugging information from a customer's product whenever problems occur. It automatically turns the product's debug status on and off and collects necessary files according to problem categories.

Case Diagnostic Tool Capabilities

- CDT lets users provide detailed problem descriptions
- CDT supports multiple product diagnostics
- CDT collects relevant system information from the customer's computer/system
- CDT turns product and specific module debug status on and off according to problem category
- CDT monitors specific process status information, such as CPU load and memory usage
- CDT retrieves problem-related files and compresses them into a password-protected ZIP file (password is "trend")
- CDT supports the following Windows platforms:
    - Windows 98 Second Edition
    - Windows 2000 Professional/Server Edition
    - Windows XP Professional Edition
    - Windows 2003 Server Edition

Case Diagnostic Tool 2.5 New Features

- Problem categorization as “checklists”
- Web server version detection and log collection support (for Microsoft IIS and Apache)
- Available disk volume checking for diagnosis completion
- Windows system, security, and application events output collection
- Windows MMC services content collection
- Windows WINMSD categories output collection
- CDT execution time calculation
- Enhanced problem description dialog
- New User Interface (UI) flow
- Restructured data output and content collection
- ScanMail Domino (SMD) multiple instances detection support

Using the Case Diagnostic Tool

Files Included with the Case Diagnostic Tool

CaseDiagnosticTool.exe

CaseDiagnosticTool.dll

CaseDiagnosticTool.ini

ExInterface_Common.dll

PSAPI.DLL

Readme.txt

Licenses*.txt

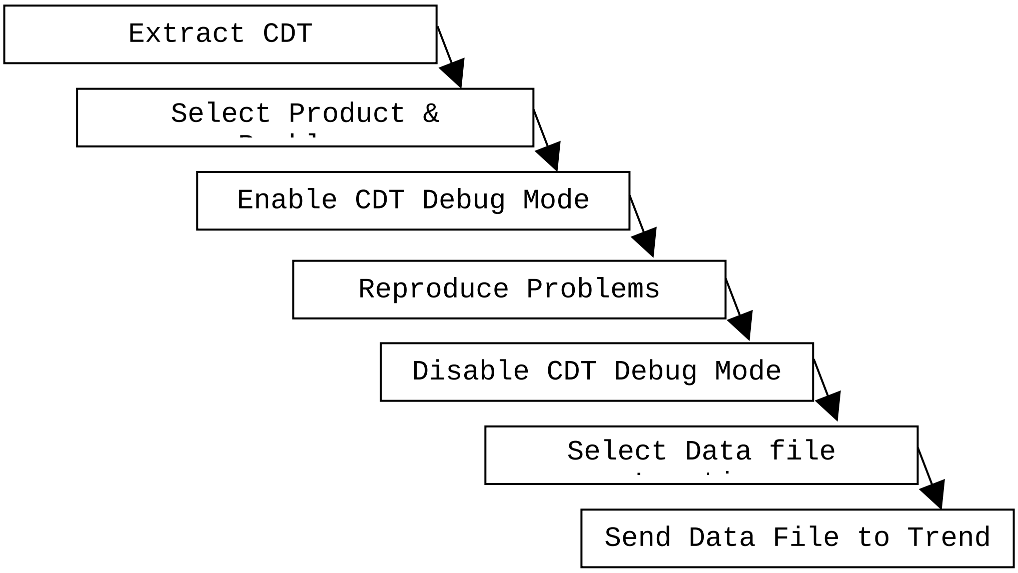
ExInterface*.ini

ExInterface*.dll

Tools*.*

win95*.*

Case Diagnostic Tool User Work Flow



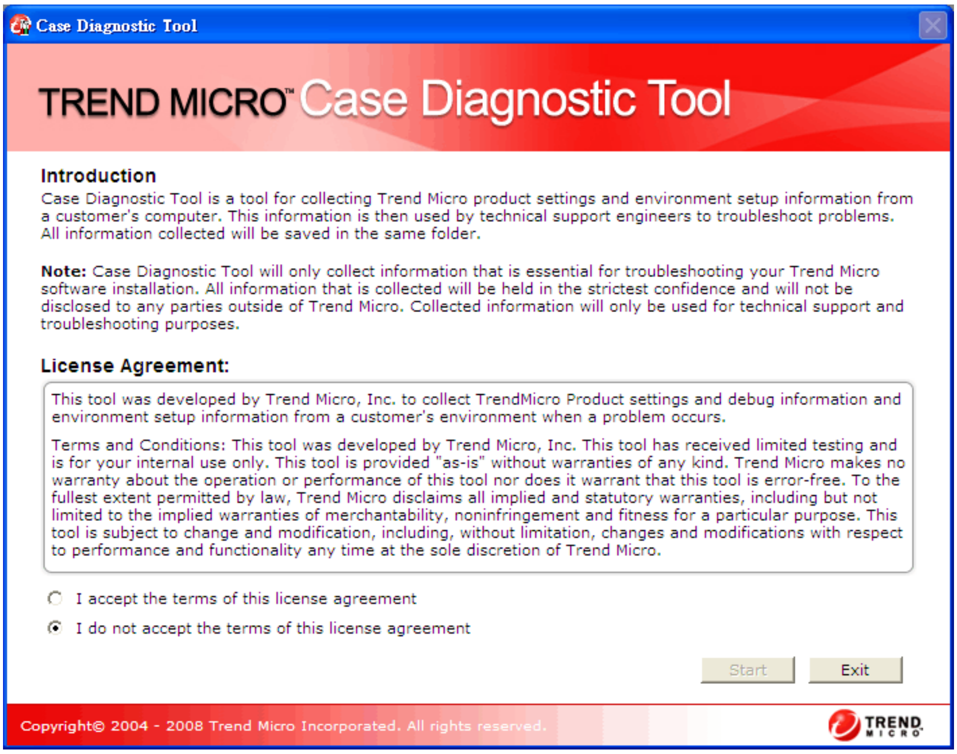
Extracting the Case Diagnostic Tool

After getting the Case Diagnostic Tool ZIP file, extract the contents using the "extract to CDT 2.5" option so that all the sub-folders are extracted correctly. The executable file "CaseDiagnosticTool.exe" is located under the "\CDT2.5\" folder.

Running the Case Diagnostic Tool

Accepting the License Agreement

To run CDT, navigate to the "\CDT2.5\release" folder. Locate "CaseDiagnosticTool.exe" and double-click it. The CDT welcome screen appears. After reviewing the product introduction and accepting the license agreement, click **Start** to go to the Select Product Problems screen.



Introduction

Case Diagnostic Tool is a tool for collecting Trend Micro product settings and environment setup information from a customer's computer. This information is then used by technical support engineers to troubleshoot problems. All information collected will be saved in the same folder.

Note: Case Diagnostic Tool will only collect information that is essential for troubleshooting your Trend Micro software installation. All information that is collected will be held in the strictest confidence and will not be disclosed to any parties outside of Trend Micro. Collected information will only be used for technical support and troubleshooting purposes.

License Agreement:

This tool was developed by Trend Micro, Inc. to collect TrendMicro Product settings and debug information and environment setup information from a customer's environment when a problem occurs.

Terms and Conditions: This tool was developed by Trend Micro, Inc. This tool has received limited testing and is for your internal use only. This tool is provided "as-is" without warranties of any kind. Trend Micro makes no warranty about the operation or performance of this tool nor does it warrant that this tool is error-free. To the fullest extent permitted by law, Trend Micro disclaims all implied and statutory warranties, including but not limited to the implied warranties of merchantability, noninfringement and fitness for a particular purpose. This tool is subject to change and modification, including, without limitation, changes and modifications with respect to performance and functionality any time at the sole discretion of Trend Micro.

○ I accept the terms of this license agreement

● I do not accept the terms of this license agreement

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Figure 1: License Agreement – Welcome screen

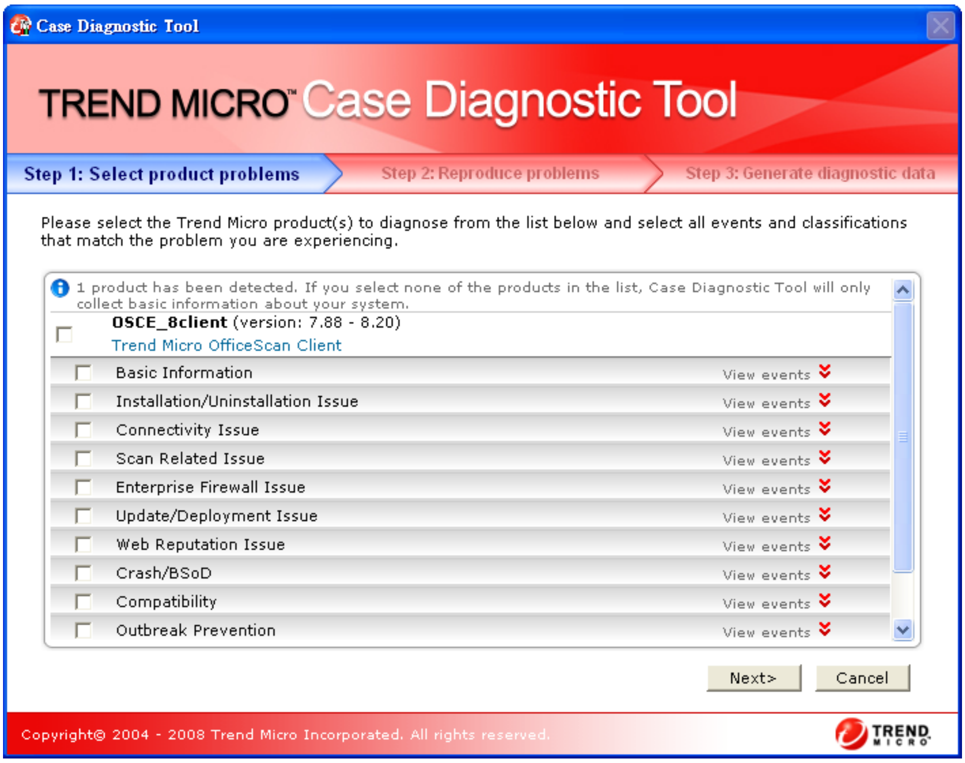
Detecting Trend Micro Products

Initially, the Select Product Problems screen displays the Trend Micro product detection progress bar. During this phase, CDT checks for and loads the interface DLL files of all Trend Micro products installed on the system. When checking is complete, a list of Trend Micro products and their associated problem categorization will be displayed (Figure 2).

Selecting Product Problems

The Select Product Problems screen (Figure 2) displays the products installed along with their respective problem categories. Choose one or more products to diagnose, and then select one or more problem categories as you see fit.

Note - To collect only system information, leave all checkboxes unchecked.


Case Diagnostic Tool
TREND MICRO Case Diagnostic Tool
Step 1: Select product problems
Step 2: Reproduce problems
Step 3: Generate diagnostic data

Please select the Trend Micro product(s) to diagnose from the list below and select all events and classifications that match the problem you are experiencing.

1 product has been detected. If you select none of the products in the list, Case Diagnostic Tool will only collect basic information about your system.

□ **OSCE_8client** (version: 7.88 - 8.20)
Trend Micro OfficeScan Client

- □ Basic Information — View events
- □ Installation/Uninstallation Issue — View events
- □ Connectivity Issue — View events
- □ Scan Related Issue — View events
- □ Enterprise Firewall Issue — View events
- □ Update/Deployment Issue — View events
- □ Web Reputation Issue — View events
- □ Crash/BSoD — View events
- □ Compatibility — View events
- □ Outbreak Prevention — View events

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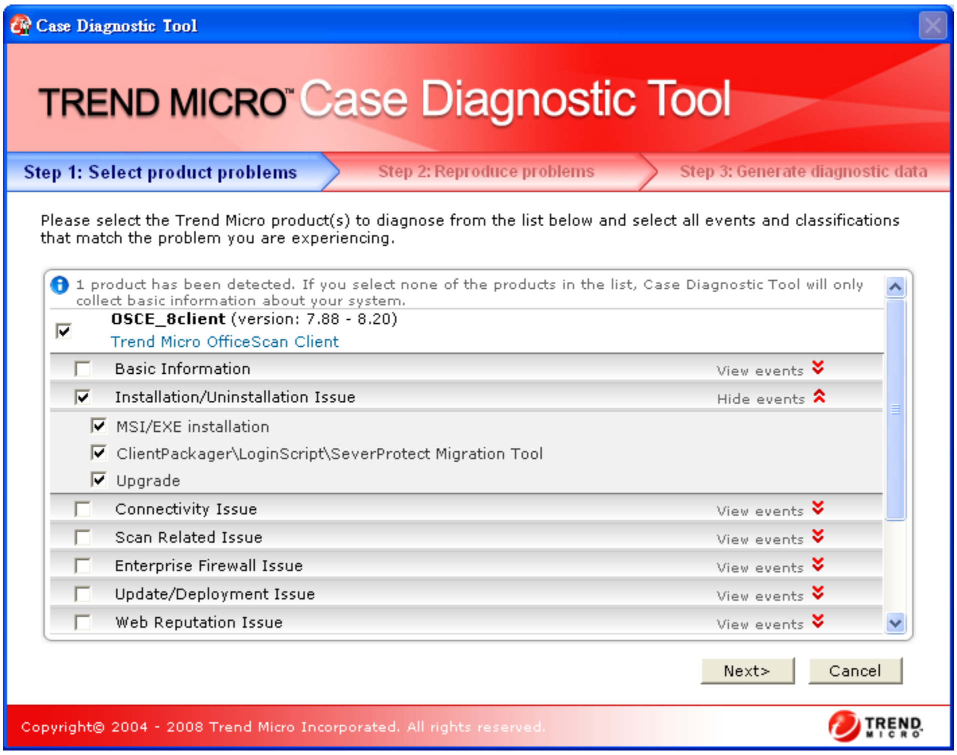
Figure 2: Select Product Problems screen

Each problem category is composed of several problem “events”. By selecting a category, all events related to it are also selected. You can click View Events to see what events are in the category, and you can uncheck some of them if you do not wish to collect their information (Error: Reference source not found).


Case Diagnostic Tool
TREND MICRO™ Case Diagnostic Tool
Step 1: Select product problems
Step 2: Reproduce problems
Step 3: Generate diagnostic data
Next>
Cancel
TREND MICRO

Please select the Trend Micro product(s) to diagnose from the list below and select all events and classifications that match the problem you are experiencing.

1 product has been detected. If you select none of the products in the list, Case Diagnostic Tool will only collect basic information about your system.

☑ **OSCE_8client** (version: 7.88 - 8.20)
Trend Micro OfficeScan Client

- □ Basic Information — View events
- ☑ Installation/Uninstallation Issue — Hide events
  - ☑ MSI/EXE installation
  - ☑ ClientPackager\LoginScript\SeverProtect Migration Tool
  - ☑ Upgrade
- □ Connectivity Issue — View events
- □ Scan Related Issue — View events
- □ Enterprise Firewall Issue — View events
- □ Update/Deployment Issue — View events
- □ Web Reputation Issue — View events

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Figure 3: Select Product Problems Screen – Selecting events

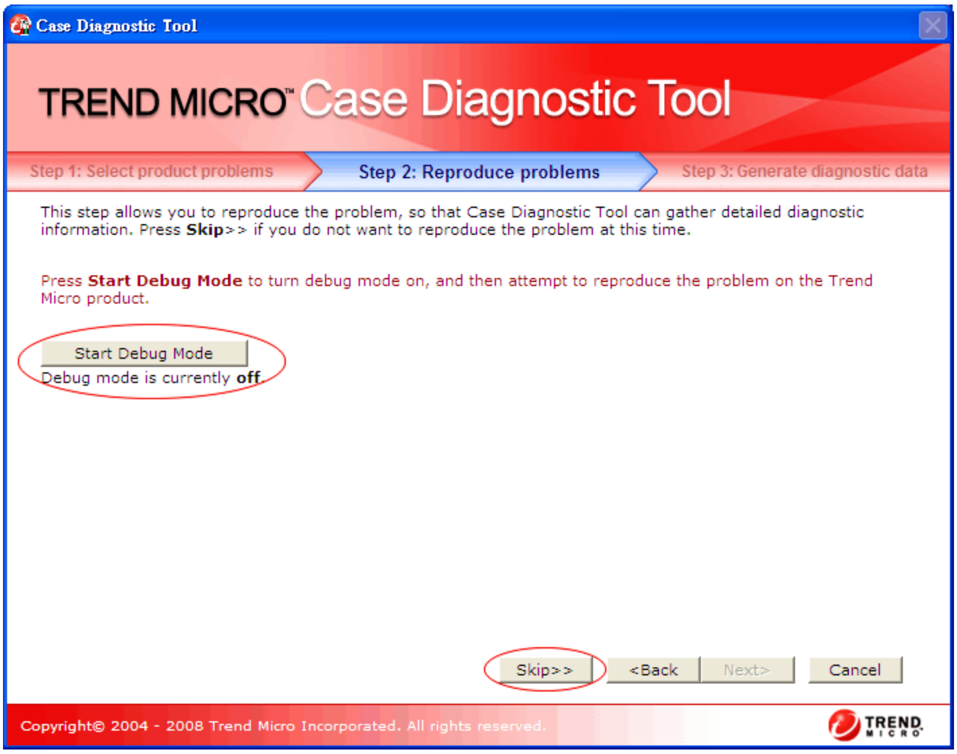
Click **Next** to go to the Reproduce Problems screen (Figure 4), or click **Cancel** to exit CDT.

> **Note** - If no product was selected in the Select Product Problems screen, CDT will skip the Reproduce Problems screen and display the Generate Diagnostic Data screen.

Reproducing the Problems

On the Reproduce Problems screen (Figure 4), click **Start Debug Mode**. It may take a few moments for CDT to start the product and module debug mode and set the corresponding debug levels. During this time, CDT displays the message “Debug mode is changing…”

> **Note** - If no product was selected in the Select products and events screen, the Reproduce Problems screen will not appear.



Case Diagnostic Tool
TREND MICRO™ Case Diagnostic Tool
Step 1: Select product problems
Step 2: Reproduce problems
Step 3: Generate diagnostic data

This step allows you to reproduce the problem, so that Case Diagnostic Tool can gather detailed diagnostic information. Press **Skip>>** if you do not want to reproduce the problem at this time.

Press **Start Debug Mode** to turn debug mode on, and then attempt to reproduce the problem on the Trend Micro product.

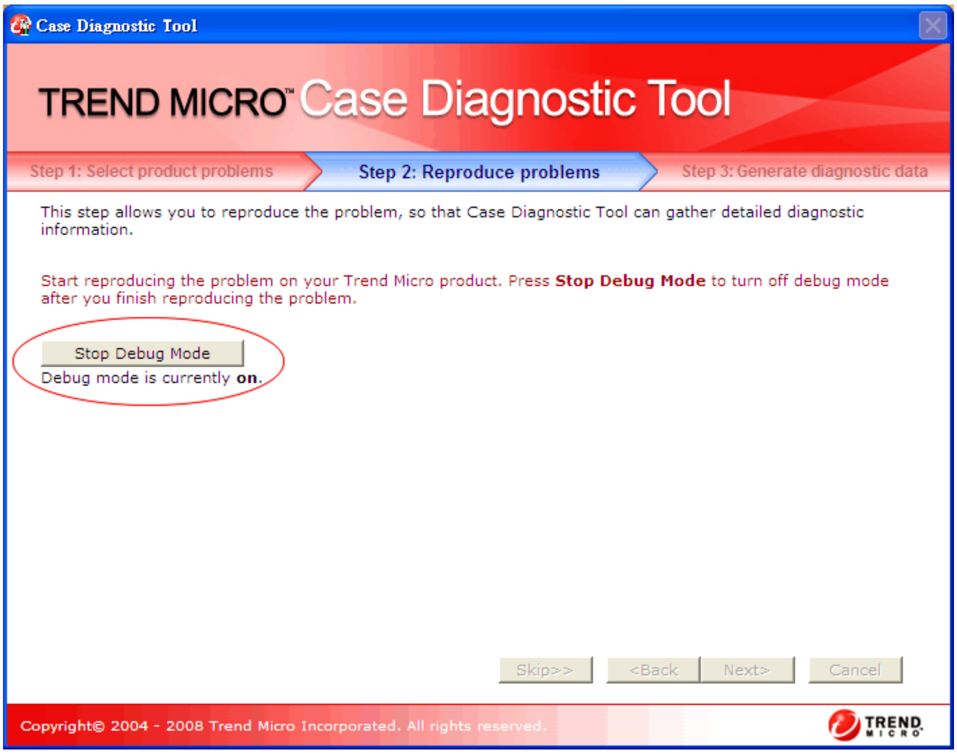
Debug mode is currently **off**

Start Debug Mode
Skip>>
<Back
Next>
Cancel
Copyright© 2004 - 2008 Trend Micro Incorporated. All rights reserved.
TREND MICRO

Figure 4: Reproduce Problems – Start Debug Mode screen

Note – Click **Skip** to go to the Generate Diagnostic Data screen (Figure 7) if you do not want to reproduce the problem at this time or if you have already turned the debug mode on, reproduced the problem, and turned the debug mode off.

When CDT displays the message “Debug mode is currently on”, change to the product console or dialog and try to reproduce the error. After reproducing the problem, click **Stop Debug Mode** (Figure 5). This restores the product and module’s original debug settings (Figure 6) and allows you to proceed to the next step.



Case Diagnostic Tool
TREND MICRO™ Case Diagnostic Tool
Step 1: Select product problems
Step 2: Reproduce problems
Step 3: Generate diagnostic data
Stop Debug Mode
Skip>>
<Back
Next>
Cancel
TREND MICRO

This step allows you to reproduce the problem, so that Case Diagnostic Tool can gather detailed diagnostic information.

Start reproducing the problem on your Trend Micro product. Press **Stop Debug Mode** to turn off debug mode after you finish reproducing the problem.

Debug mode is currently **on**.

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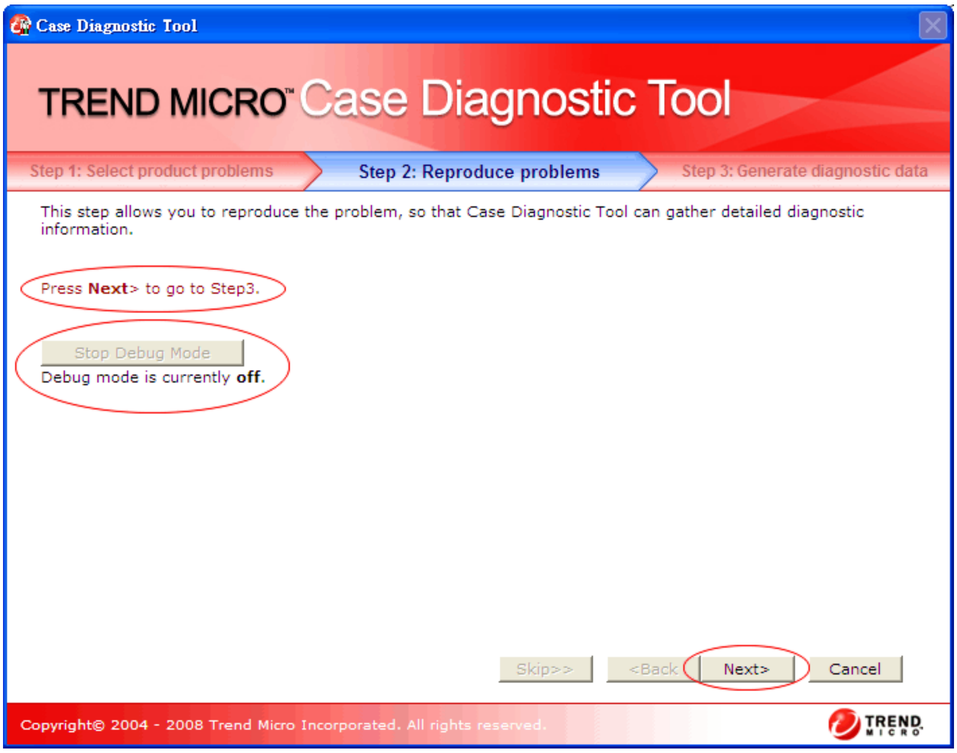
Figure 5: Reproduce Problems – Stop Debug Mode screen

From the Reproduce problems screen, click **Next** to move to the Generate Diagnostic Data screen (Figure 7).


Case Diagnostic Tool
TREND MICRO™ Case Diagnostic Tool
Step 1: Select product problems
Step 2: Reproduce problems
Step 3: Generate diagnostic data
Stop Debug Mode
Skip>>
<Back
Next>
Cancel
TREND MICRO

This step allows you to reproduce the problem, so that Case Diagnostic Tool can gather detailed diagnostic information.

Press **Next**> to go to Step3.

Debug mode is currently **off**.

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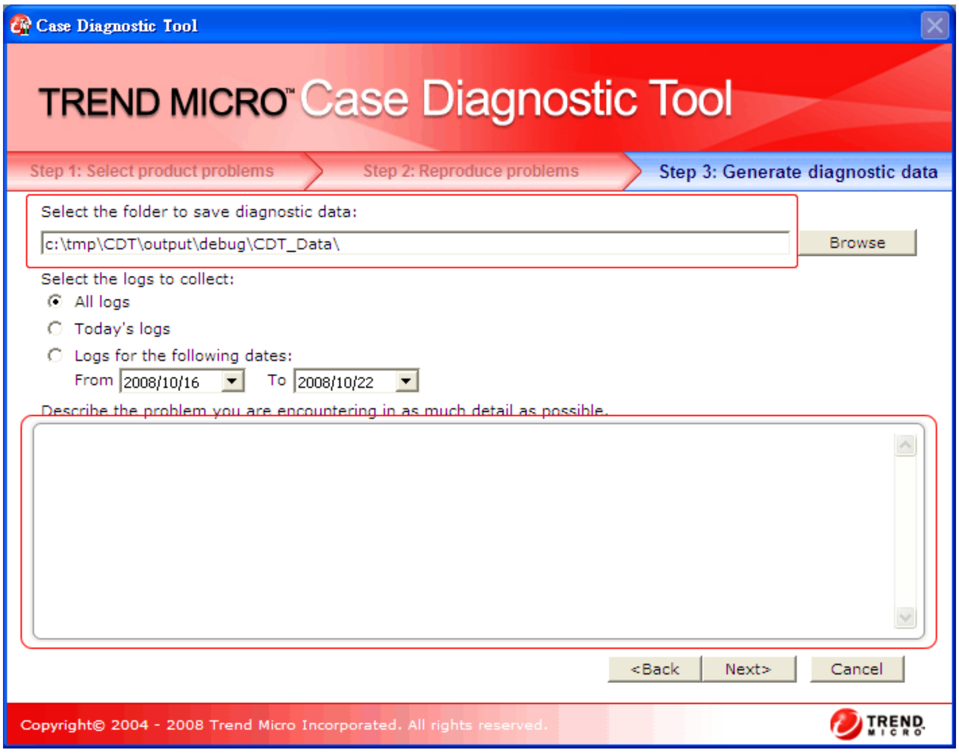
Figure 6: Reproduce Problems – Finish screen

Generating Data for Diagnosis

From Generate Diagnostic Data screen (Figure 7), select a folder (either a local folder or a shared folder) where the diagnostic data will be saved. CDT will automatically create a subfolder named CDT_Data inside this selected folder.

> **Note** - Verify that you have sufficient access rights to the selected folder so that CDT can create the subfolder and save the data files there.



Case Diagnostic Tool

TREND MICRO™ Case Diagnostic Tool

Step 1: Select product problems · Step 2: Reproduce problems · Step 3: Generate diagnostic data

Select the folder to save diagnostic data:

c:\tmp\CDT\output\debug\CDT_Data\

Select the logs to collect:

● All logs

○ Today's logs

○ Logs for the following dates:

From 2008/10/16 To 2008/10/22

Describe the problem you are encountering in as much detail as possible.

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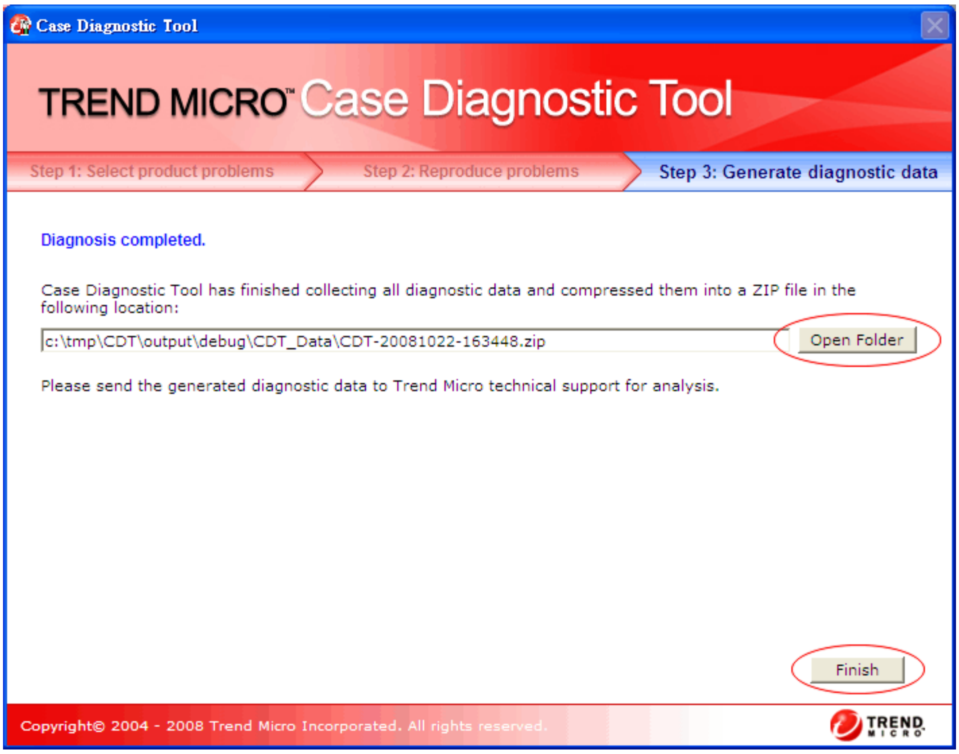
Figure 7: Generate Diagnostic Data screen

Next, select one of the three log collection options.

> **Note** - If you select the "Logs for the following dates" option and the product's log files do not follow the Common Log Module (CLM) naming convention, CDT will ignore the dates specified and collect all logs.

Finally, type a description of the problem in the text area at the bottom of the screen (Figure 7). This is a required field. Click **Next** to have CDT begin generating the diagnostic data. When CDT has finished generating the data, it will compress and save the file in the location specified, and display the "Diagnosis completed" message on the Generate diagnostic data screen (Figure 8). The text field displays the path name of the compressed diagnostic data file (ZIP format). Click **Open Folder** to open the folder where the ZIP file is located, or click **Finish** to exit CDT.


Case Diagnostic Tool
TREND MICRO™ Case Diagnostic Tool
Step 1: Select product problems
Step 2: Reproduce problems
Step 3: Generate diagnostic data
Open Folder
Finish
TREND MICRO

Diagnosis completed.

Case Diagnostic Tool has finished collecting all diagnostic data and compressed them into a ZIP file in the following location:

c:\tmp\CDT\output\debug\CDT_Data\CDT-20081022-163448.zip

Please send the generated diagnostic data to Trend Micro technical support for analysis.

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Figure 8: Generate diagnostic data – diagnosis complete

Sending Diagnostic Data to Trend Micro Support

Trend Micro has sales and corporate offices in many cities around the globe. For global contact information, visit the Trend Micro Worldwide site:

http://www.trendmicro.com/en/about/contact/overview.htm

Note - The information on this Web site is subject to change without notice

To contact Trend Micro Technical Support, visit the following URL:

http://esupport.trendmicro.com

Advanced Configuration

About CaseDiagnosticTool.ini

CaseDiagnosticTool.ini is the configuration file used by CDT. It is located in the same folder as the CDT executable file CaseDiagnosticTool.exe.

The following items can be changed from the CaseDiagnosticTool.ini file:

CDT debug log level—During execution, CDT writes debug information in CaseDiagnosticTool.log, the detail of which depends on the level set in CaseDiagnosticTool.ini. Change the debug log level by setting the key "CDT_DebugLevel" under the [Setting] section. The said debug log level ranges from 0 to 4, with 4 providing the most detailed information.

CDT Silent Mode—If the key "SilentMode" under the [Setting] section is set to 1, CDT will run in silent mode (that is, the UI will not appear). The default value of this key is 0. In silent mode, CDT collects diagnostic data based on the settings in the succeeding sections of CaseDiagnosticTool.ini.

Minimum disk space requirement—CDT 2.5 added two keys in CaseDiagnosticTool.ini, "CDT_RequiredDiskSpace" and "ProductRequiredDiskSpace", to verify if there is enough disk space to complete a CDT diagnostics test. CDT_RequiredDiskSpace checks if the space in the folder where CDT will be running is sufficient, while ProductRequiredDiskSpace checks if the space in the folder where the product is installed is sufficient.

Refer to the following sample text from the CaseDiagnosticTool.ini for the usage of these Silent Mode sections:

[ExInterface]
[EventList]
[BasicInfo]
[ProcessCheckList]
[LogFilter]

Sample Content of CaseDiagnosticTool.ini:

```
[Setting]
;Define whether running in silent mode.
SilentMode=0
;Define the default path to store necessary log files when running in silent mode.
SilentFolder=C:\CDT_Data
CDT_DebugLevel=4
;Define whether to turn on/off the debug mode of the product(s) or not
RunDebugMode=0;
;Define the time period in minutes to reproduce the problem in silent mode, 0 means no time limit
SilentDebugTime=0
;Define the minimum disk space requirement, the unit is in megabytes
CDT_RequiredDiskSpace=100
ProductRequiredDiskSpace=100
[ProcessCheckList]
; CheckInterval can be 2 to 60 seconds
CheckInterval=2
;Please change those ProcessX pair to specific process name according to your request.
;Process1=explorer.exe
;Process2=taskmgr.exe

;All sections below are used for the silent mode
```

```
[BasicInfo]
;Please write description about the problem between them
<Problem_Desc_Begin>
<Problem_Desc_End>

;ExInterface plug-ins will be selected in silent mode.
[ExInterface]
;DebugLevel can be 0 to 9, detail increases with value increases.
DebugLevel=5
;Please change the ExInterfaceX pair to specific plug-ins according
to your request.
ExInterface1=OSCE_client
ExInterface2=OSCE_server
;Event related to ExInterface plug-ins will be selected in silent
mode.
[EventList]
;ExInterfaceX in [EventList] is event list related to plug-in of
ExInterfaceX in section [ExInterface]
ExInterface1=1,3
ExInterface2=1
[LogFilter]
;if LogFileRange is 1, LogFile_JustToday, LogFile_Begin and
LogFile_End will be use, otherwise they will be ignored.
LogFileRange=0
;if LogFile_JustToday is 1, LogFile_Begin and LogFile_End will be
ignored.
LogFile_JustToday=1
;LogFile_Begin and LogFile_End, their format must be YYYYMMDD
LogFile_Begin=20041130
LogFile_End=20041201
```

Diagnostic Data Package Contents and Structure

Once Case Diagnostic Tool (CDT) has finished collecting system information and retrieving log files, all of its collected diagnostic data files are compressed into a ZIP file and a timestamp is used for the file name. The timestamp name follows the YYYYMMDD-hhmmss format. The ZIP file is then saved in the folder previously specified in the Generate diagnostic data screen.

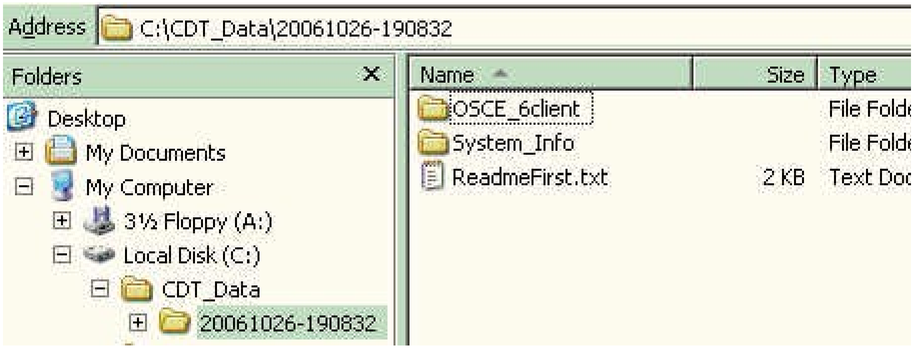


Figure 9: Contents of CDT generated diagnostics file

The timestamp folder contains the following files (Table 1). The product files will vary depending on the Trend Micro products installed:

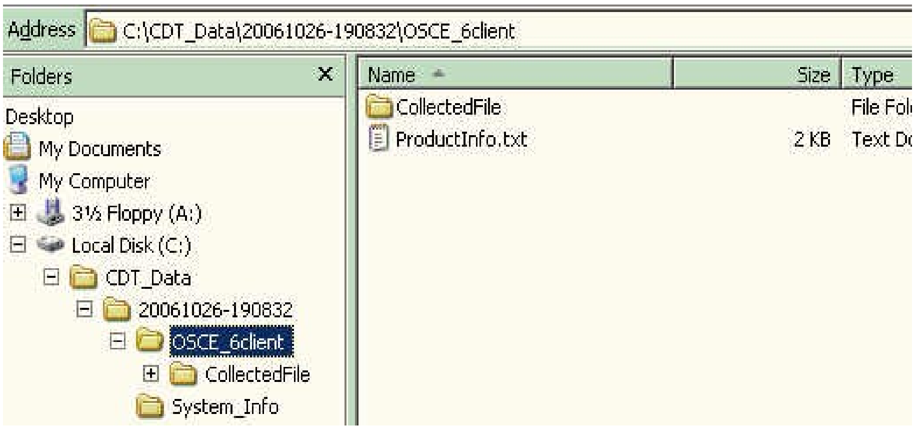
Table 1: Timestamp folder contents

File Name	Description
`ReadmeFirst.txt`	A text file containing a summary report of current diagnostic process and result
`System_Info`	The system information report folder

`Example of a Product Name:`
`OSCE_client`
	The folder of the specific product diagnosed. If CDT diagnoses several products, there would be other specific folders (for example, IMSS_5, SMEX_7)

Contents and Structure of the Product Folder

The product folder(s) contains a basic information file (ProductInfo.txt) and a CollectedFile folder containing event log files, and configuration files of the diagnosed product (Figure 10).



Address C:\CDT_Data\20061026-190832\OSCE_6client

Name	Size	Type
CollectedFile		File Fol
ProductInfo.txt	2 KB	Text Do

Figure 10: Contents of the product folder

For example, in the folder OSCE_6client, the following files are present**:**

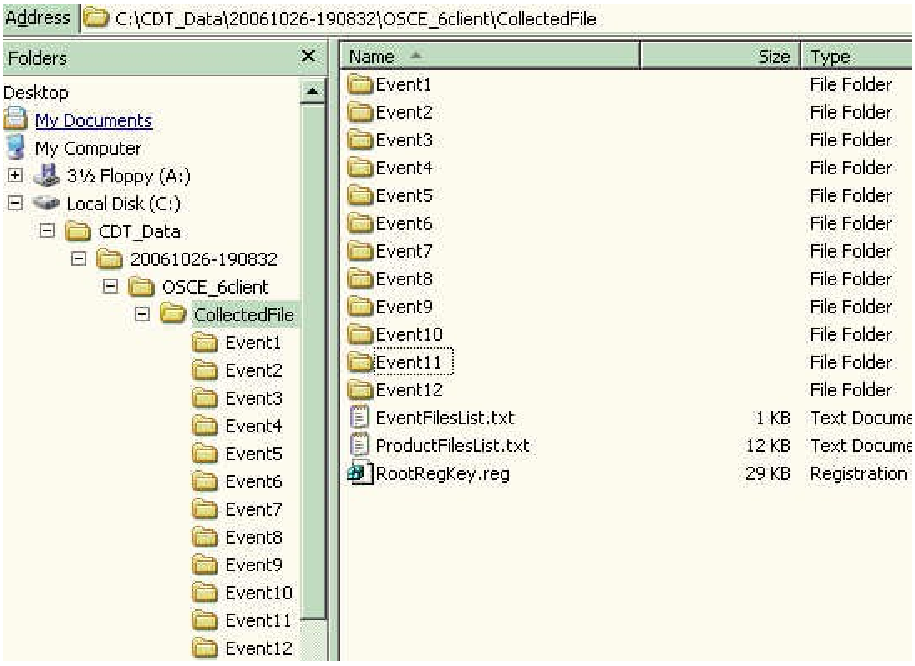
Table 2: Product folder contents

File Name	Description
`ProductInfo.txt`	A text file containing basic information and selected problem categories and events of the specified product
`CollectedFile`	A folder containing all collected product events, structure lists, and configuration files

Contents and Structure of the CollectedFile Folder

Inside the CollectedFile folder are three files and a number of Event folders (Figure 11). The EventFilesList.txt stores the retrieved log list; the ProductFilesList.txt stores the product home directory structure; and the RootRegKey.reg stores the designated registry dump files. These retrieved files are separated by EventID and saved in a specific event folder, such as Event1, Event2, and so on.

Under each event folder, a file named __FILELIST__.LOG contains the association list between the original file name and the saved file name.



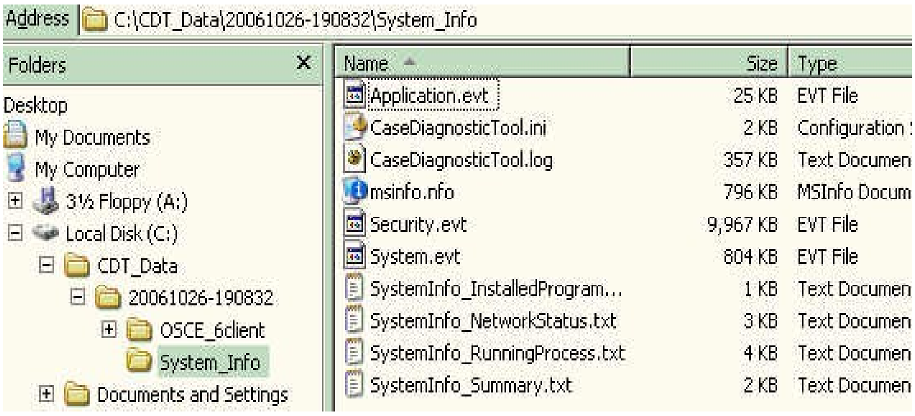
Address C:\CDT_Data\20061026-190832\OSCE_6client\CollectedFile

Name	Size	Type
Event1		File Folder
Event2		File Folder
Event3		File Folder
Event4		File Folder
Event5		File Folder
Event6		File Folder
Event7		File Folder
Event8		File Folder
Event9		File Folder
Event10		File Folder
Event11		File Folder
Event12		File Folder
EventFilesList.txt	1 KB	Text Docume
ProductFilesList.txt	12 KB	Text Docume
RootRegKey.reg	29 KB	Registration

Figure 11: Contents of CollectedFile folder

Contents and Structure of the System_Info Folder

The System_Info folder contains files relating to system output (Figure 12).



Address C:\CDT_Data\20061026-190832\System_Info

Name	Size	Type
Application.evt	25 KB	EVT File
CaseDiagnosticTool.ini	2 KB	Configuration :
CaseDiagnosticTool.log	357 KB	Text Documen
msinfo.nfo	796 KB	MSInfo Docum
Security.evt	9,967 KB	EVT File
System.evt	804 KB	EVT File
SystemInfo_InstalledProgram...	1 KB	Text Documen
SystemInfo_NetworkStatus.txt	3 KB	Text Documen
SystemInfo_RunningProcess.txt	4 KB	Text Documen
SystemInfo_Summary.txt	2 KB	Text Documen

Figure 12: Contents of System_Info folder

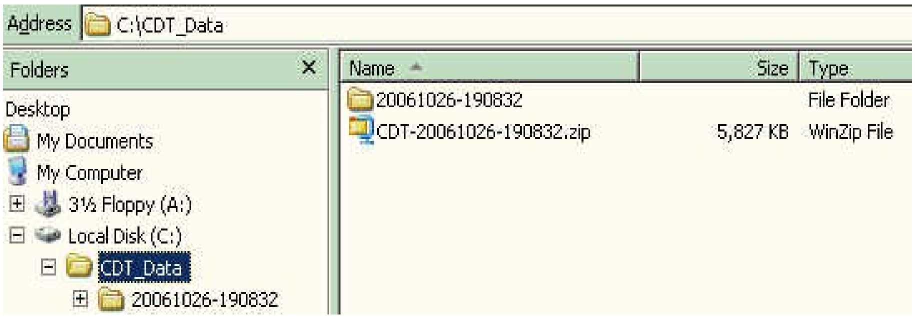
The System_Info folder contains the following files**:**

Table 3: System_Info folder contents

File Name	Description
`CaseDiagnosticTool.ini`	Case Diagnostic Tool configuration file
`CaseDiagnosticTool.log`	Case Diagnostic Tool debug log file
`Application.evt`	Windows Application event log output
`Security.evt`	Windows Security event log output
`Application.evt`	Windows System event log output
`msinfo.nfo`	Windows Winmsd categories output
`SystemInfo_InstalledProgram.txt`	System installed program and security patch(es) output
`SystemInfo_NetworkStatus.txt`	System network status and active TCP/IP connection output
`SystemInfo_RunningProcess.txt`	System running processes output
`SystemInfo_Summary.txt`	System summary output, including operating system version, computer name, hardware information, Web server, etc.

Contents and Structure of the CDT_Data Folder

All the subfolders and files inside the timestamp folder are compressed in a ZIP file and saved inside the CDT_Data folder (Figure 13). The name of the said ZIP file follows the format CDT-<TIMESTAMP>.zip (for example, CDT-20061026-190832.zip).



Name	Size	Type
20061026-190832		File Folder
CDT-20061026-190832.zip	5,827 KB	WinZip File

Figure 13: Contents of CDT_Data folder

Structural View of the CDT_Data Folder

```
//------------------------------------------------------------------
[CDT_Data]                                      <DIR>
20061026-190832                                 <DIR>
  OSCE_client                                   <DIR>
      CollectedFile                             <DIR>
          Event1                                <DIR>
              __FILELIST__.LOG
              OfcDebug.log
          EventFilesList.txt
          RpoductFilesList.txt
          RootRegKey.reg
      ProductInfo.txt
  System_Info                                   <DIR>
      CaseDiagnosticTool.ini
      CaseDiagnosticTool.log
      Application.evt
      Security.evt
      System.evt
      msinfo.nfo
      SystemInfo_InstalledProgram.txt
      SystemInfo_NetworkStatus.txt
      SystemInfo_RunningProcess.txt
      SystemInfo_Summary.txt
CDT-20061026-190832.zip
//----------------------------------------------------------------
```