Application Reporting Tool

© 2025 PTC Inc. All Rights Reserved.

Table of Contents

Application Reporting Tool	1
Table of Contents	2
Application Reporting Tool	3
Overview	3
Generating an Application Report	4
Collecting Event Logs	10
Server Data and Crash Dumps	11
Information in an Application Report	12
Information in an Application Report	12 13

Application Reporting Tool

Help version 1.020

CONTENTS

Overview What is the Application Reporting Tool?

Generating an Application Report

How do I create a report using the Application Reporting Tool?

Collecting Event Logs

What are event logs and which ones do I need to collect?

Server Application Data and Memory Dumps How do I choose to collect processes and capture memory dumps?

Information Included in an Application Report

What is sent to Technical Support with an Application Report archive?

Overview

The Application Reporting Tool is a technical support utility, available to Windows Administrators on the installation machine, that automates the process of gathering and archiving data for troubleshooting or identifying system issues. With the exception of identifying hardware and gathering general operating system information, the Application Reporting Tool only collects file and registry information that directly pertains to related applications. After report generation, the entire report archive is stored in a user-specified location and may be reviewed before sending to technical support.

For more information regarding what data is collected as part of an Application Report archive, see <u>Information</u> Included in an Application Report.

See Also: Generating an Application Report

Generating an Application Report

To create a report with the Application Reporting Tool.

1. Launch the Application Report tool.

As the Administrator through the desktop icon OR through the server **Tools** menu OR through the **Administration** menu.

		Settings
Open		Quick Client
love to OneDrive		License Utility
Open file location	File Edit Tools Runtime Help	Application Report Utility
💡 Run as administrator		Help
Send to		Support Information
Properties	OR Options OPTION	Exit

 Select Basic, Basic + Crash, or Basic + Hang. Basic gathers all the normal troubleshooting information. If the application is experiencing crashes, use Basic + Crash. If the application is in a deadlocked state, use Basic + Hang. (*(To use Advanced, see steps below.)*

C Application Report	×
The Application Reporting Tool automates the process of gathering and archiving data for identifying and troubleshooting system issues. After report generation, the entire report archive is stored in a user-specified location and may be reviewed before sending to Technical Support.	
Basic: Select to gather relevant information for archiving and troubleshooting.	
O Basic + Crash: All the basic information plus any crash dumps that have been created.	
O Basic + Hang: All the basic information plus process dumps of the UI and runtime.	
Advanced: Select to customize the collection of server logs, datastores, and process dumps. This creates an excessively large report and should only be used as instructed by Technical Support.	
< <u>B</u> ack <u>N</u> ext > Close	

- 3. Click Next >.
- 4. Review the information to be gathered. Click Next >.
- 5. Choose the location for the file to be saved and click OK.

6. The Application Reporting Tool collects the files, generates the archive, and displays a notification message on completion.



- 7. Click Close.
- 8. Browse to the archive in the output folder. Output archives are compressed using the ZIP format and follow the naming convention (UTC Time):

ARU_YEAR-MONTH-DAY_HOUR-MIN-SEC.zip

9. Send the file to Technical Support or extract the archive and browse the directory for the files of interest.

Advanced

1. Select Advanced to control how much detail to include and click Next.

C Application Report ×	
The Application Reporting Tool automates the process of gathering and archiving data for identifying and troubleshooting system issues. After report generation, the entire report archive is stored in a user-specified location and may be reviewed before sending to Technical Support.	
◯ Basic: Select to gather relevant information for archiving and troubleshooting.	
◯ Basic + Crash: All the basic information plus any crash dumps that have been created.	
◯ Basic + Hang: All the basic information plus process dumps of the UI and runtime.	
Advanced: Select to customize the collection of server logs, datastores, and process dumps. This creates an excessively large report and should only be used as instructed by Technical Support.	
< <u>B</u> ack <u>N</u> ext > Close	

2. Choose the event logs and diagnostics to collect, as described in Collecting Event Logs and click Next.

C Application Report	×
Server Logs:	
Collect Event Log	
Collect Audit Log	
Collect OPC Diagnostics	
Communication Diagnostics uncollectable due to persistance mode. Modify to enable.	
Collect ThingWorx Diagnostics	
< <u>B</u> ack <u>N</u> ext > Close	

3. Select content to include as described in Server Data and Crash Dumps.

Application Report	Х
Server App Data Content Include EFM Datastore Include Historian Datastore	
Process Crash Dumps Starting with Windows Server 2008 and Windows Vista with Service Pack 1, it is possible to configure Windows so that user-mode dumps are collected and stored locally after a user-mode application crashes. Click 'Enable Crash Dumps' to enable this functionality. Configure the crash dump location using the file path edit box below. To include these dumps in the Application Report, click 'Collect Crash Dumps'.	
Enable Crash Dumps Collect Crash Dumps C:\Temp\CrashDumps	
< <u>B</u> ack <u>N</u> ext > Close	

4. Click Next.

7 ____

5. Select the processes for which to generate on-demand process memory dumps and click Next.
For more information on process memory dumping, including when a memory dump is necessary, refer to Server Data and Crash Dumps.

✓ server_eventlog.exe 11480
server_runtime.exe 7236
✓ config_api_service.exe 9840

- 6. The Application Reporting Tool generates a preview of the collected data for review. Verify the settings and click **Next** (or click **Back** to make changes before generating).
 - For details regarding the information collected, see Information Included in an Application Report.

Ċ	Application Report	×
	System Info: Operating System: Windows 10 Enterprise Edition 64-bit OS Major Version: 10 OS Minor Version: 0 OS Build Number: 17763 Platform ID: 2 Product Type: 1 Service Pack: Suite Mask: 0x00000100, Remote Desktop Supported (1 Interactive Session) Virtualization: None Processor Architecture: 0x0000009 Number of processors: 4 Default UI language ID: 0x00000409, English - United States (en-us)	
_	Name: Loopback Pseudo-Interface 1	
	< <u>B</u> ack <u>N</u> ext > Close	

7. Browse to and select the folder in which to save the report archive.

Browse For Folder	×
Save the output archive to selected folder:	
 Drivers Examples Help Plugins Projects Properties Reports schemas 	^
Eolder: Reports Make New Folder OK Canada	cel

- 8. Click OK.
- 9. The Application Reporting Tool collects the files, generates the archive, and displays a notification message on completion.

Application Report		\times
	The Application Report Utility has successfully generated the archive. Click 'Close' to exit the Wizard or 'Back' to generate a new archive.	
	< Back Next > Close	

10. Click Close.

11. Browse to the archive in the output folder. Output archives are compressed using the ZIP format and follow the naming convention (UTC Time):

ARU_YEAR-MONTH-DAY_HOUR-MIN-SEC.zip

12. Send the file to Technical Support or extract the archive and browse the directory for the files of interest.

Collecting Event Logs

An application-specific, user-configurable event logging service is included in most products. The technical support team may request the logs generated by the service to better understand the error and any relevant diagnostic information provided by the product.

C Application Report	×
Server Logs:	
Collect Event Log	
Collect Audit Log	
Collect OPC Diagnostics	
Communication Diagnostics uncollectable due to persistance mode. Modify to enable.	
Collect ThingWorx Diagnostics	
< <u>Back</u> <u>Next</u> > Close	

The log collection interface is divided into two sections, allowing collection of server logs and LinkMaster logs. If either product is not installed, the section is disabled.

Server Logs

Five types of server logs are collectable:

- Collect Event Logs Records noteworthy occurrences at the server level.
- Collect Audit Log Records changes to the server project.
- Collect OPC Diagnostics Records OPC events occurring between an OPC client and the server.
- Collect Communication Diagnostic Records record messages and events occurring between a driver and a device.
- Collect ThingWorx Diagnostics: Records native interface events and messages between the server, the CSDK, and the ThingWorx Platform.

LinkMaster Logs

• Collect Event Logs Records noteworthy occurrences at the server level.

Server Data and Crash Dumps

There are several choices that affect the size and completeness of the report.

🔁 A	opplication Report	×
S	erver App Data Content Include EFM Datastore Include Historian Datastore	
Pr	rocess Crash Dumps	1
Si to US Co du	tarting with Windows Server 2008 and Windows Vista with Service Pack 1, it is possible to configure Windows so that user-mode dumps are collected and stored locally after a ser-mode application crashes. Click 'Enable Crash Dumps' to enable this functionality. Configure the crash dump location using the file path edit box below. To include these umps in the Application Report, click 'Collect Crash Dumps'.	
	Enable Crash Dumps Collect Crash Dumps	
	C:\Temp\CrashDumps	
	< <u>B</u> ack <u>N</u> ext > Close	

Server App Data Content

Many Windows applications leverage the Application Data directory as an area for storage of temporary or longterm files that do not require direct user interaction. The Application Reporting Tool collects this directory to provide technical support staff with a better understanding of the state of applications on the system. Plug-ins installed as part of the server product also use this space for storage. This information is not always needed by technical support, but can be included when necessary.

Include EFM Datastore: Server's EFM Suite stores its historical EFM (Electronic Flow Measurement) data within the Application Data directory. Selecting this option allows the collection of EFM content when collecting the Application Data directory. If no EFM content exists within Application Data, this selection has no effect.

Include Historian Datastore: The server's local "historian" plug-in may store its database in any location, including the Application Data directory. Selecting this option allows the collection of historian datastore files when collecting the Application Data directory. If no historian datastore exists within Application Data, this selection has no effect.

Process Crash Dumps

Windows Vista SP1/Server 2008 releases and higher provide the ability to generate process memory dumps automatically when a process crashes, providing valuable insight into the conditions leading to the crash. The Application Reporting Tool configures the system to collect ONLY those dumps related to this particular vendor software.

Enable Crash Dumps: Sets / disables a system-wide registry key, notifying Windows to generate a process memory dump any time a process crashes. Within the text field, a default path of C:\Temp\CrashDumps is provided and may be changed to any location at any time.

Collect Crash Dumps: Process memory dumps related to vendor products that are stored in the selected path are collected as part of the Application Report archive. Within the archive, process memory dumps appear in the /CrashDumps folder of related products.

11 .

• Note: Collecting process memory dumps require administrative privileges. If the system or authorized user does not have adequate privileges, the utility requests temporary elevation of rights to administrator level.

Information in an Application Report

As part of the Application Reporting Tool, many different pieces of information are included. Below is a list of some of the information and files collected as part of archive generation.

System

- Information Compiled:
 - Hardware Details
 - Operating System Details
 - Active and Disconnected Network Interfaces
 - Installed .NET Frameworks
 - DCOM State and Permissions
 - OPC Enum Service Details
 - Registered OPC Servers (as seen by OPC Enum)
- Files Copied:
 - bootstrap.log
 - Error log generated during the failure of any Windows installer application
 - <AppData>\Vendor\Common
 - Vendor Hardware Keys
 - <AppData>\FLEXnet
 - Vendor Licensing
 - Windows System Event Log File
 - Windows Application Event Log File

General Product

- Information Compiled:
 - Installed Components
 - A list of .exe and .dll files stored in the install directory of each product
 - Xi Wrapper (Server Only)
 - Product Registry Entries
 - HKEY_CURRENT_USER\SOFTWARE\<Vendor>\<Product>\V5
 - HKEY_LOCAL_MACHINE\SOFTWARE\<Vendor>\<Product>\V5
 - HKEY_CLASSES_ROOT\AppID\<Product_CLSID>
 - HKEY_CLASSES_ROOT\CLSID\<Product_CLSID>
 - Product DCOM Configuration and Permissions
- Files Copied:
 - Trusted Storage Diagnostics
 - License details file generated by a product's "activation_client.exe"
 - Install Log
 - The log file generated by each product during installation and modification
 - (Optional) Log Files
 - Includes Event, Audit, OPC Diagnostics, Communication Diagnostics, and ThingWorx Native Interface logs See "Collecting Event Logs" on page 10
 - Application Data
 - · Temporary and long-term storage for application specific files
 - Log files from the Program Files directory (RedundancyMaster Only)

Other

- (Optional) On-Demand Process Memory Dumps
 - See <u>Server Data and Crash Dumps</u>

(Optional) Process Memory Crash Dumps
 See Server Data and Crash Dumps

Command Line Options

The Application Reporting Tool can be run from a command line. The following section provides the commands and options available.

Command : processlist, proclist, pl

Description: Display a list of running processes.

Arguments: none Flag: none

Example: ./applicationreport.exe pl

Command : output, out, o

Description: Save the output of the Application Reporting Tool. This can take several minutes to complete. Results are stored in the output directory as a compressed .ZIP file.

Arguments: <File Path> : <Path to the output directory>

Flags: < PID> pid/processid/procid: Given process IDs, the Application Reporting Tool includes the full process dumps in the archive.

Example ./applicationreport.exe o "C:\ARU_Output" 8596

Command : dump, dumpall, all

Description: Saves all processes and includes them in the archive. Arguments: <Any output command> <File Path> : <Path to the output directory> Flag: none Example: ./applicationreport.exe o "C:\ARU_Output" dump

Command : help , h

Description: Display the explanations for the commands. Arguments: none Flag: none Example: ./applicationreport.exe help

Index

Α

Application Data 11 Audit Logs 10

В

bootstrap.log 12

С

Collect Crash Dumps 11 Collecting Event Logs 10 Command Line Options 13 Communication Diagnostics 10

D

DCOM State 12 Diagnostics 12

Ε

EFM Datastore 11 Electronic Flow Measurement 11 Enable Crash Dumps 11 Event Logs 10

G

Generating an Application Report 4

Η

Help Contents 3 Historian Datastore 11

I

Information in an Application Report 12

L

LinkMaster 10

Ν

Network Interfaces 12

0

OPC Diagnostics 10 OPC Enum 12 Output archives 5, 10 Overview 3

S

Server Application Data Content 11 Server Data and Crash Dumps 11 Server Log 10

Т

ThingWorx Diagnostics 10

Ζ

ZIP format 5, 10