

ICL Pathway

Audit Extractor Support Guide

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0.1 Document control

0.1 Document history

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0.2 Approval authorities

Name	Position	Signature	Date
Peter Sewell	Platform Development Authority		
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0.3 Associated documents

Reference	Version	Date	Title	Source
SD/DES/076	1.0	30/09/1999	Physical Design for Audit Server	PCMS
SD/DES/072	1.0	25/06/1999	Audit Data Storage & Retrieval: High Level Design	PCMS
SD/DES/115	1.0	25/07/2000	Audit Data Storage & Retrieval: High Level Design	PCMS
SD/DES/116	1.0	25/07/2000	Audit Data Extraction & Filtering: High Level Design	PCMS
TD/LLD/009	1.0	25/04/2000	Audit Extractor Low Level Design	PCMS
TSC/AGT/038	1.1	20/04/1999	High Level Design of Common Agents for Release 2	PCMS
P/N 22-1877 -01		March 1998	Legato Networker Administrator's Guide	Paper
TD/MAN/01	1.0	21/08/2000	Audit Server Support Guide	PVCS

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0.4 Abbreviations

HLD	High Level Design
LLD	Low Level Design
DLT	Digital Linear Tape
ATG	Audit track gatherer
ATS	Audit track sealer
ATH	Audit track hoarder
ATD	Audit track deleter
ATR	Audit track retriever
DLL	Dynamic Link Library.
UNC	Universal Naming Convention.
AT	Audit Track
RFI	Request For Information (Database)

0.5 Changes in this version

Comments from the review meeting have been incorporated.

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1 Introduction

This document is the support guide for the 'Audit Data Extraction and Filter' application.

The 'Audit Data Extraction and Filter' application is used to:

- Locate audit tracks that conform to specific filtering attributes, such as Date Range, Audit Points and Sub Points.
- Extract specified audit tracks from DLT tape.
- Maintain a database of RFI's and status information.

See: **SD/DES/116** for design details.

1.1 Scope

An associated element of the 'Audit' solution is the 'Audit Server' facility. Support guide, **TD/MAN/018**, does not cover this element it is covered in **TD/MAN/017**.

In addition, this support guide does not cover the following integral elements of the 'Audit' solution:

- Legato Networker. This is a commercial product that is used by the 'Audit', (and 'Archiving') application for the long term storage of audit data,
- Maintenance of the 'Legato Networker' run time configuration,
- Maintenance of the 'Audit' configuration file, i.e. the run time parameters,
- The standalone graphical configuration tool, 'Configurer.exe'.

2 Outline of Purpose of Product

2.1 Functions

The main functions of this application are to identify and extract PATHWAY generated audit tracks from DLT tapes into file store.

2.2 Performing the Functions

These functions are achieved by the use of:

- A graphical user (client) interface that runs on a Windows NT (Audit) workstation,
- Server mechanisms (dll's) that run on the 'Audit' server platform. These dll's provide 'wrapper' functions for accessing:
 - Legato Networker command line utilities,
 - Common Agent utilities.

- A network (client / server) connection mechanism, based on a Windows NT service.

2.2.1 Client Side - AuditExtractorClient.exe

This is the main GUI module. All user filtering and extraction requests are implemented via this application.

2.2.2 Client Side - RemoteFinder.dll

This module is used to scan the network to locate the ATL service that runs on the Audit Server platform.

For an in depth discussion about this element see: **TD/LLD/009**, Section 4.1.1.

2.2.3 Server Side - ATLSERVICE.exe

This module is a 'service' that is installed on the Audit Server platform to provide the linkage between the Audit Extractor (client) and the Audit Extractor filtering and extraction facilities on the server.

2.2.4 Server Side - AuditExtractServer.dll

This module maps the client side GUI -> the mapping dll calls, to the server side dll's, namely: LegatoListFilesDll.dll and MSUtilsDll.dll.

NOTE: Although this is a 'Server' side dll, it is also installed on the 'Client'.

2.2.5 Server Side - LegatoListFilesdll.dll

This module contains the functions that are used to access the 'Legato Networker' system.

2.2.6 Server Side - MSUtilsdll.dll

This module contains the functions that are used to access the 'Agent Utility' functions.

2.2.7 Server Side - LegatoMmiCmd.exe

This module is a wrapper for the 'Legato Networker' function '**mminfo**'.

2.2.8 Server Side - LegatoNsrCmd.exe

This module is a wrapper for the 'Legato Networker' function '**nsrinfo**'.

2.2.9 Server Side - LegatoRecoverCmd.exe

This module is a wrapper for the 'Legato Networker' function '**recover**'.

2.2.10 Server Side - AgentGetID.exe

This module is a wrapper for the 'Common Agent' utility 'Agent_Get_ClusterID'.

2.2.11 Server Side - AgentLoadAuditData.exe

This module is a wrapper for the 'Common Agent' utility 'Agent_Load_Audit_Data'.

2.2.12 Server Side - ResetRiposte.exe

This module is a wrapper for the 'Common Agent' utility 'Reset_Riposte_Message_Store'.

2.3 Standards and Languages

Visual 'C' is used for:

- the wrapper dll's on the server,
- the wrapper functions on the server, (6 off),

Visual 'C++' is used for:

- the client/server connection service,
- the service 'finder' utility,

Visual Basic 5.0 is used for:

- The graphical front end (client).

The 'RFI' database is based on Microsoft's 'Access' database.

2.3.1 VSS

All code modules are held in Visual Source Safe, under path:

\\CMServer\VSS-InfDom\Infrastructure\Audit\AuditExtraction_CI4

and with the following individual compilable elements:

- CLIENT (Audit Workstation Platform) executables:
 - **AuditExtractorClient.exe,**
 - **RemoteFinder.dll,**
- SERVER (Audit Server Platform) executables:
 - **ATLService.exe,**
 - **AuditExtractServer.dll,**
 - **LegatoListFilesdll.dll,**

- **MSUtilsdII.dll,**
- **LegatoMmiCmd.exe,**
- **LegatoNsrCmd.exe,**
- **LegatoRecoverCmd.exe,**
- **AgentGetID.exe,**
- **AgentLoadAuditData.exe,**
- **ResetRiposte.exe.**

NOTE 1: Also in this tree are 2 test harnesses. These are:

- LegatoListFilesDIITest,
- MSUtilsDIITest.

Neither of these 2 harnesses are released. They are test aids only.

NOTE 2: There is an early release version, known as the Beta-Test version that is now no longer supported. This is in VSS under path:

\\CMServer\VSS-InfDom\Infrastructure\Audit\AuditExtraction_BTest

3 Code Paths

3.1 Main Module

3.1.1 AuditExtractorClient.exe

Full details of the forms that are used by this VB5 application are shown in **TD/LLD/009**, Section 4.1.2.

3.2 Procedure Calls

Procedures embedded in the following 2 dll's are used to:

- identify and list files, (LegatoListFilesDII)
- obtain file status details, (LegatoListFilesDII)
- recover files, (LegatoListFilesDII)
- reset a message store, (MSUtilsDII)
- populate a message store, (MSUtilsDII)
- obtain a cluster ID value, (MSUtilsDII)

3.2.1 Legato Class

This class of object exposes the following methods:

- ListLegatoFiles ();
- ListVolumeData();
- RecoverLegatoFiles();
- LegatoRecoverStatus();
- LegatoRecoverTidy()

3.2.2 MessageStore Class

This class of object exposes the following methods:

- AgentGetClusterID();
- ResetRiposte();
- RestoreAuditData();

3.2.3 ServerFile Class

This class of object exposes the following methods:

- OpenFile();
- ReadLine();
- WriteLine();
- CloseFile();

3.2.4 ConfigFile Class

This class of object exposes the following methods:

- GetConfigString();
- GetConfigInt();

4 Errors

The Windows NT Event log is not used.

All functions in the dll's return 0 (or a positive value) on success, and -n on failure.

The failure details are displayed to the 'user' in a message box.

4.1 Exit Codes

4.1.1 LegatoListFileDll.dll

- 1 (1 or more mandatory arguments have not been supplied.)
- 2 (MMINFO call has failed.)
- 3 (1st read file open failure (_pre.txt))
- 4 (1st write file open failure (_mmi.txt))
- 5 (NSRINFO call has failed.)
- 6 (2nd read file open failure (_mmi.txt))
- 7 (2nd write file open failure (_nsr.txt))
- 8 (3rd read file open failure (_nsr.txt))
- 9 (Spawn of LegatoP has failed.)
- 10 (Create of 'recover' script file has failed.)
- 11 (4th read file open failure (_rec.txt))
- 12 (Unable to open the user supplied output file.)
- 13 (Unable to open the volume data file (_out.txt).)
- 14 (Unable to open recovery input file (user supplied).)
- 15 (Read error on user supplied input file (Recover Phase).)
- 16 (Unable to open temporary output file (Status Check).)
- 17 (Unable to open 'out'file as log input (Status Check).)
- 18 (Unable to open 'inp' file (Status Check).)
- 19 (Unable to delete RFI file (Status Check).)
- 20 (Unable to open the log file (Status Check).)

4.1.2 MSUtilsDll.dll

- 1 (1 or more mandatory arguments have not been supplied.)
- 2 (Spawn of 'Agent_Get_ClusterID' has failed.)
- 4 (Spawn of 'Reset_Riposte_Message_Store' has failed.)
- 5 (Spawn of 'Agent_Load_Audit_Data' has failed.)
- 6 ('Restore_Audit_Data' has returned an error. See response files for details.)
- 7 ('Agent_Load_Audit_Data' has returned an error. See response files for details.)

-8 ('Agent_Get_ClusterID' has returned an error. See response files for details.)

4.2 Deficiencies

None.

4.3 Clearance Dates

N/A.

4.4 Work Rounds

None.

5 Messages

5.1 Internal Message Communications

None.

5.2 Run Time Communications

None.

6 API

The 'Legato Networker' command line interface is used to invoke:

- mminfo,
- nsrinfo,
- recover,

See **P/N 22-1877-01 (Legato Networker Administrator's Guide)** Appendix A, for full details.

7 Support Route

Normal 1st to 4th line support route, using PATHWAY's PinICL system.

NOTE 1. Comment from review sheet added here for completeness.

(1st to 3rd line support calls may not be supported by Development in the long term. Jan Holmes (QRM Audit Manager) raised this several times with Mik Peach, as I recall, before Jan left ICL Pathway. A skill's transfer may be required when Development process, 4th line support calls only. This is a potential issue that QRM Audit has to resolve.)