
Saxonite Limited.

ArtiSan Mailbox Manager for Exchange

Troubleshooting Guide

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Abstract

This document describes how to identify and resolve problems reported for the ArtiSan product.

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Change History

1.0 Initial

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Introduction

This document describes the resources that can be used to isolate and resolve issues arising out of installations of the ArtiSan Mailbox Manager for Exchange product. It contains details of specific errors that have been seen in the field and identifies how those errors are reported and what can be done to resolve the error.

Initially, we look at the monitoring page in the ArtiSan Management interface. This is a key source to find out what the system is currently doing.

Next we look at the log file and present some log files scenarios to illustrate its content.

Next we look at the ArtiSan Diagnostics Tool.

Finally, we document some frequently asked questions that may be useful in a general understanding of the system.

The ArtiSan Monitoring Page

The monitoring page contains details of the currently running system over the previous 24 hour periods. As the ArtiSan scheduler and other components perform functions they update statistics which can be viewed in the monitoring page of the ArtiSan Log.

The following information is shown:

No. Scans	The number of scans completed in this timeframe. For the current scan, this is 0 meaning a scan is in progress or 1 meaning that the scheduler is pausing between scans.
No. Users Scanned	The number of users that have been scanned in this timeframe. Actually, this is really a count of mailboxes, but that amounts to the same thing.
No. Folders Scanned	The number of folders that have been scanned in this timeframe.
No. Items Scanned	The number of items that have been scanned in this timeframe.
No. Items Tested	The number of items that have been tested for archival or stubbing in this timeframe.
No. Items Archived	The number of items that have been archived in this timeframe.
No. Items Stubbed	The number of items that have been stubbed in this timeframe.
No. Items Retrieved	The number of items that have been retrieved in this timeframe.
No. Migrations	The number of attempts to migrate between stores in this timeframe.
No. Items Migrated	The number of items that have been migrated between stored in this timeframe.
No. Rules Evaluated	The number of rules evaluated in this timeframe.
No. Bytes Stored	The number of bytes that have been stored in this timeframe.
No. Bytes Retrieved	The number of bytes that have been retrieved in this timeframe.
No. Bytes Migrated	The number of bytes that have been migrated in this timeframe.
No. Queue Files Scanned	The number of Queue files that have been scanned in this timeframe.
No. Queue Files Processed	The number of Queue files that have been processed in this timeframe.
No. Items Restored	The number of Items restored to mailboxes in this timeframe.

The ArtiSan Log

The main resource for troubleshooting ArtiSan issues is the integrated logging and tracing system. All ArtiSan modules log to a common log file located in the Data directory of the target install called AMM.log. By default, the log file just contains information messages, warnings and errors that have occurred. You can add additional lower level trace information through the trace keys in the registry on a per module basis.

ArtiSan informational, warning and error logs are also copied to the event viewer to allow automated event tracking software to monitor the system.

The Content of the Log

Each line of the log file contains details of the type and location of the error/trace information as well as when the report happened and some system information relating to the log. They also contain information relating to the source code that caused the log to occur. This is very useful when reporting the log as it allows us to identify the specific line of code where the error was reported. For illustration, this is a part of a recent log file:

```
C:\Dev\Saxonite\Artisan\Scheduler\Scheduler.cpp(389): 08/09/04 08:19:33: INFO: 3804:
3812: Service started (TID 0xee4)
C:\Dev\Saxonite\Artisan\RequestProxy\UserRequest.cpp(208): 08/09/04 08:33:34:
WARNING: 3648: 2960: Request failed to iterate mailbox (no MAPI Session) for AABTest
with 0x80040115
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(94): 08/09/04 08:33:35: WARNING:
3804: 3828: Failed to process message box for user AABTest with IRequest 0x80040115
Failed to create Exchange Profile for AABTest (HARRIS, AABTest@local.net) with
ProfMan.Service IService 0x80040115 Failed to configure Exchange profile Could not
configure the service ( Unknown error 0x80040115)
```

Many logs in ArtiSan provide not only the information on where the error was reported but also some indications of where the error originally occurred. The consequence is that some error (e.g. the last in the log shown here) appears to be reporting the same error text two or three times. This is normal.

The top line of the log above is stating the file and line number the information was reported, the date and time of the report (in UTC), that the report was informational, the process ID and thread ID where the log is reported (this does not appear in earlier versions of the software) and the log information.

The second and third lines of the log above are showing an actual error in progress. The second line is saying that a particular mailbox is unavailable for processing because the software could not contact the Exchange Server for some reason.

Increasing Trace Level Settings

To increase the level of trace displayed in the log, open the registry using “regedit” and navigate to:

HKLM\Software\Saxonite\AMM\Trace

Under this key you will see a series of values for each of the modules on the current system. Each named value has a DWORD value that defaults to zero meaning only output informational messages, warnings and errors. To increase the output for any module change its value to a positive value between 1 and 9 where 1 is a small amount of trace information through to 9 which means trace everything. Note, large amounts of trace have a significant performance impact on the software and should only be used when absolutely necessary to maintain the system. The ArtiSan software will pick up change to these values automatically (you do not need to restart any modules) after a few seconds.

Specific Error Conditions

The rest of this section is devoted to specific error conditions that can occur when running the ArtiSan system.

Database Not Available

In this scenario, the scheduler is performing a scan with messages to Archive. The database becomes unavailable due a network or machine failure (i.e. the database server is on a separate machine)

The following two warning messages will be seen for the first mail message archive to fail (i.e. after the “: LEVEL 6: Checking message.....” Message). Note: there is likely to a delay of up to 1 minute until the first warning is logged.

```
..\include\ADO.h(151): 06/17/04 10:22:36: WARNING: Failed to exec query SELECT StoreDriverId, StorageId, MessageDate, RetentionDate FROM ArtiSan where AMMId='JLFAOCFCKDMDKPGEOGJDADPLMMEOMJAL_20040617' (0x80004005 - [Microsoft][ODBC SQL Server Driver][DBNETLIB]ConnectionRead (recv()). [Microsoft][ODBC SQL Server Driver][DBNETLIB]General network error. Check your network documentation.)
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(169): 06/17/04 10:22:36: WARNING: Failed to Archive message with ArtiSan.ArchiveEngine.1 IArchiveEngine 0x80004005 Failed to archive message ( Archiver.MailArchive.1 IMailArchive 0x80004005 Failed to query database with Unknown error ( 0x80004005) Unspecified error)
```

The messages above indicate that the network failure happen during the process of archiving a message. During subsequent attempts to archive a mail message, the following two warning messages will be logged.

```
..\include\ADO.h(124): 06/17/04 10:23:44: WARNING: Failed to connect to database ArtiSan (0x80004005 - [Microsoft][ODBC SQL Server Driver][DBNETLIB]SQL Server does not exist or access denied. [Microsoft][ODBC SQL Server Driver][DBNETLIB]ConnectionOpen (Connect()))
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(169): 06/17/04 10:23:44: WARNING: Failed to Archive message with ArtiSan.ArchiveEngine.1 IArchiveEngine 0x80004005 Failed to archive message ( Archiver.MailArchive.1 IMailArchive 0x80004005 Failed to open database with Unknown error ( Microsoft OLE DB Provider for ODBC Drivers IDBInitialize 0x80004005 [Microsoft][ODBC SQL Server Driver][DBNETLIB]SQL Server does not exist or access denied.))
```

As soon as the connection or the machine is restarted the scan will recover and continue on as normal. Any Mail messages that were not archived will be archived on the next scan.

Database Software Failure

In this scenario, the scheduler is performing a scan with messages to Archive. The database becomes unavailable due a database software failure (the database server could be on the same or a separate machine).

The following two warning messages may be seen for the first mail message archive to fail (i.e. after the “: LEVEL 6: Checking message.....” Message) if the mail message archive happens while the database server is failing or shutting down.

```
..\include\ADO.h(151): 06/17/04 11:05:59: WARNING: Failed to exec query SELECT StoreDriverId, StorageId, MessageDate, RetentionDate FROM ArtiSan where AMMId='KODAIMGBBGLENGKEGIBGIDBMGIKEOEED_20040617' (0x80040e14 - [Microsoft][ODBC SQL Server Driver][SQL Server]SHUTDOWN is in progress. Log off.)
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(169): 06/17/04 11:05:59: WARNING: Failed to Archive message with ArtiSan.ArchiveEngine.1 IArchiveEngine 0x80040e14 Failed to archive message ( Archiver.MailArchive.1 IMailArchive 0x80040e14 Failed to query database with Unknown error ( Unknown error 0x80040e14))
```

It is possible that the following pair of warning messages could be seen on the first or second mail message archive to fail if the database failure or shutdown is not yet complete.

```
..\include\ADO.h(151): 06/17/04 11:06:00: WARNING: Failed to exec query SELECT * FROM dbo.sysobjects WHERE id = object_id(N'[dbo].[Version]') (0x80004005 - [Microsoft][ODBC SQL Server Driver][DBNETLIB]ConnectionWrite (send()). [Microsoft][ODBC SQL Server Driver][DBNETLIB]General network error. Check your network documentation.)
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(169): 06/17/04 11:06:00: WARNING: Failed to Archive message with ArtiSan.ArchiveEngine.1 IArchiveEngine 0x80004005 Failed to archive message ( Archiver.MailArchive.1 IMailArchive 0x80004005 Failed to query database with Unknown error ( 0x80004005) Unspecified error)
```

Once the database failure or shutdown is complete subsequent attempts to archive a mail message will result in the following pair of warning messages.

```
..\include\ADO.h(124): 06/17/04 11:06:19: WARNING: Failed to connect to database
ArtiSan (0x80004005 - [Microsoft][ODBC SQL Server Driver][DBNETLIB]SQL Server does
not exist or access denied.
[Microsoft][ODBC SQL Server Driver][DBNETLIB]ConnectionOpen (Connect().)
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(169): 06/17/04 11:06:19: WARNING:
Failed to Archive message with ArtiSan.ArchiveEngine.1 IArchiveEngine 0x80004005 Failed
to archive message ( Archiver.MailArchive.1 IMailArchive 0x80004005 Failed to open
database with Unknown error ( Microsoft OLE DB Provider for ODBC Drivers IDBInitialize
0x80004005 [Microsoft][ODBC SQL Server Driver][DBNETLIB]SQL Server does not exist or
access denied.))
```

If the database server can be restarted the scan will recover and continue on as normal. Any Mail messages that were not archived will be archived on the next scan.

Database Server Hardware Failure

In this scenario, the scheduler is performing a scan with messages to Archive. The machine the database server is running on is shutdown (i.e. the database server is on a separate machine).

The system behaves the same as in previous scenario.

ADS/Exchange Server Failure

In this scenario, the scheduler is performing a scan with messages to Archive. The machine the Exchange server and the ADS are running on is shutdown.

The first error indicates that the Exchange server is no longer available

```
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(419): 06/17/04 12:33:38: WARNING:
Failed to create MAPI profile for ACDTest:NARVIK with ProfMan.Service IService
0x80040115 Failed to configure Exchange profile Could not configure the service
```

Even though ADS is also not available the Scheduler will have read ahead for user so it is possible that a number of the following messages will be logged.

```
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(782): 06/17/04 12:33:38: LEVEL 3:
Found a user test ACETest
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(782): 06/17/04 12:33:38: LEVEL 3:
Found a user test ADATest
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(782): 06/17/04 12:33:38: LEVEL 3:
Found a user test ADBTest
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(782): 06/17/04 12:33:38: LEVEL 3:
Found a user test AEBTest
```

Until:

```
AECTestC:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(830): 06/17/04 12:33:39:
LEVEL 1: Number of users found is 99
```

There is a delay until scheduler attempts another Scan and tries to read the ADS it fails with the following error message

```
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(719): 06/17/04 12:35:00: WARNING:
Failed to open ADSI object with (0x8007203a) The server is not operational.
```

On re-starting the machine that is running both ADS and Exchange ADS will start first so the scheduler will be able to iterate Users as follows....

```
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(782): 06/17/04 12:36:02: LEVEL 3:
Found a user Administrator
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(585): 06/17/04 12:36:02: LEVEL 4:
Checking iterating mailbox folders for user Administrator
C:\Dev\Saxonite\Artisan\Utilities\Profile.cpp(251): 06/17/04 12:36:02: LEVEL 2: Getting
current profiles collection
C:\Dev\Saxonite\Artisan\Utilities\Profile.cpp(255): 06/17/04 12:36:03: LEVEL 2: Look for
profile AMMPProfile-20040612123602988 (Administrator@local.net, NARVIK)
C:\Dev\Saxonite\Artisan\Utilities\Profile.cpp(271): 06/17/04 12:36:03: LEVEL 2: Creating
profile AMMPProfile-20040612123602988 (Administrator@local.net, NARVIK)
C:\Dev\Saxonite\Artisan\Utilities\Profile.cpp(314): 06/17/04 12:36:03: LEVEL 2: Configuring
profile AMMPProfile-20040612123602988
```

```
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(473): 06/17/04 12:36:17: LEVEL 4:
Retrieving the info stores for Administrator
```

But if Exchange has still not fully re-started the following error will be logged.

```
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(483): 06/17/04 12:36:17: WARNING:
Failed to iterate mailbox for Administrator:NARVIK with [Collaboration Data Objects -
[MAPI_E_FAILONEPROVIDER(8004011D)]]].
```

Once the exchange has completely re-started the Scheduler will continue as normal for the scan. Any users “missed” during the outage will be processed on the next scan.

Dismounted Storage Group

In this scenario, the scheduler is performing a scan with messages to Archive. The Exchange server Storage group is dismounted.

The error messages will differ depending on where the scheduler is in processing a user’s mailbox when Storage group becomes unavailable.

If this is during processing messages in a folder the following messages will be logged:

```
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(241): 06/17/04 13:50:27: LEVEL 6:
Checking message /Inbox-Msg108324PT114A4 for folder /Inbox for APATest
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(169): 06/17/04 13:50:28: WARNING:
Failed to Archive message with ArtiSan.ArchiveEngine.1 IArchiveEngine 0x800406fd Failed
to Test and Archive Message with Network problems are preventing connection to the
Microsoft Exchange Server computer. [Microsoft Exchange Server Information Store -
[MAPI_E_NETWORK_ERROR(80040115)]]
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(241): 06/17/04 13:50:28: LEVEL 6:
Checking message /Inbox-Msg108634PT114 for folder /Inbox for APATest
C:\Dev\Saxonite\Artisan\Engine\ArchiveEngineP.cpp(546): 06/17/04 13:50:32: WARNING:
Collaboration Data Objects IDispatch 0x800445ed [Collaboration Data Objects -
[E_FAIL(80004005)]]
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(169): 06/17/04 13:50:32: WARNING:
Failed to Archive message with ArtiSan.ArchiveEngine.1 IArchiveEngine 0x800445ed Failed
to convert MAPI message to CDO form for
<013601c45460$343293e0$0500a8c0@local.net> ( Unknown error 0x800445ed)
```

Notice on the second message to fail there are two messages. This is usual for the rest of the messages in a folder.

When the scheduler reaches the end of a folder or the Storage Group is unavailable as a folder is encountered the following messages are logged for the rest of the folders in a mailbox/profile.

```
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(353): 06/17/04 13:50:32: WARNING:
Failed to list folders with [Collaboration Data Objects - [E_FAIL(80004005)]]].
```

and/or:

```
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(353): 06/17/04 13:50:32: WARNING:
Failed to list folders with [MAPI - [E_FAIL(80004005)]]].
```

For the next mailbox/profile if the Storage is unavailable the following messages are logged:

```
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(473): 06/17/04 13:50:32: LEVEL 4:
Retrieving the info stores for APBTest
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(483): 06/17/04 13:50:32: WARNING:
Failed to iterate mailbox for APBTest:NARVIK with [Collaboration Data Objects -
[MAPI_E_FAILONEPROVIDER(8004011D)]]].
```

Once the Storage group is re-mounted the Scheduler will continue as normal for the scan. Any users “missed” during the outage will be processed on the next scan.

ADS/Exchange Disconnected

In this scenario, the scheduler is performing a scan with messages to Archive. The network connection to the box the Exchange server and ADS are running on is unplugged. NO error messages are logged. The scheduler will freeze. This is because of DNS failure and is unavoidable. The system remains frozen until the plug is replaced. Once the

connection is re-established the scheduler will continue scanning the same mailbox/profile.

ArtiSan Data Store is Disconnected

In this scenario, the scheduler is performing a scan with messages to Archive. The network connection to the box the ArtiSan Data store is running on is un-plugged. The scheduler will log the following error message after attempting to archive a mail message there may be a delay before the error message is logged.

```
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(241): 06/18/04 09:02:49: LEVEL 6:
Checking message /Inbox-Msg110472PT114A3 for folder /Inbox for keith
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(169): 06/18/04 09:03:41: WARNING:
Failed to Archive message with ArtiSan.ArchiveEngine.1 IArchiveEngine 0x8007007b Failed
to archive message ( Archiver.FileStorage.1 IStorageDriver 0x8007007b Failed to create
output folder ((0x7b) The filename, directory name, or volume label syntax is incorrect.))
```

Subsequent attempts to archive will result in the same message. As soon as the connection is re-established the scan will recover and continue on as normal. Any Mail messages that were not archived will be archived on the next scan.

Some Error Messages and their Possible Cause

There follows a set of commonly seen error messages along with the cause of those errors.

Error Message 1

```
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(169): 06/17/04 10:22:36: WARNING:
Failed to Archive message with ArtiSan.ArchiveEngine.1 IArchiveEngine 0x80004005 Failed
to archive message ( Archiver.MailArchive.1 IMailArchive 0x80004005 Failed to query
database with Unknown error ( (0x80004005) Unspecified error))
```

An attempt to archive a message has failed. This is preceded by another error message that provides a clearer indication of the cause.

Possible causes (also see preceding messages below)

- A network component or a machine is in the process of failing. This occurs where the database is located on a separate machine.
- The database server is failing or is being shut down.
- The machine running the database server is failing or is being shut down

Error Message 2

```
..\include\ADO.h(151): 06/17/04 10:22:36: WARNING: Failed to exec query SELECT
StoreDriverId, StorageId, MessageDate, RetentionDate FROM ArtiSan where
AMMId='JLFAOCFCKDMDKPGEOGJDADPLMMEOMJAL_20040617' (0x80004005 -
[Microsoft][ODBC SQL Server Driver][DBNETLIB]ConnectionRead (recv()).
[Microsoft][ODBC SQL Server Driver][DBNETLIB]General network error. Check your network
documentation.)
```

This is usually logged when an attempt to archive a mail message is failing. Error Message 1 will follow this message.

Possible causes:

- A network component or a machine is in the process of failing. This occurs where the database is located on a separate machine.
- The database server is failing or is being shut down.

Error Message 3

```
..\include\ADO.h(151): 06/17/04 11:05:59: WARNING: Failed to exec query SELECT
StoreDriverId, StorageId, MessageDate, RetentionDate FROM ArtiSan where
AMMId='KODAIMGBBGLENGKEGIBGIDBMGIKEOED_20040617' (0x80040e14 -
[Microsoft][ODBC SQL Server Driver][SQL Server]SHUTDOWN is in progress. Log off.)
```

This is usually logged when an attempt to archive a mail message is failing. Error Message 1 will follow this message

Possible causes:

- The database server is failing or is being shut down.
- The machine running the database server is failing or is being shut down

Error Message 4

```
..\include\ADO.h(151): 06/17/04 11:06:00: WARNING: Failed to exec query SELECT *  
FROM dbo.sysobjects WHERE id = object_id(N'[dbo].[Version]') (0x80004005 -  
[Microsoft][ODBC SQL Server Driver][DBNETLIB]ConnectionWrite (send()).  
[Microsoft][ODBC SQL Server Driver][DBNETLIB]General network error. Check your network  
documentation.)
```

This is usually logged when an attempt to archive a mail message is failing. Error Message 1 will follow this message

Possible causes:

- The database server is failing or is being shut down
- The machine running the database server is failing or is being shut down

Error Message 5

```
..\include\ADO.h(124): 06/17/04 10:23:44: WARNING: Failed to connect to database  
ArtiSan (0x80004005 - [Microsoft][ODBC SQL Server Driver][DBNETLIB]SQL Server does  
not exist or access denied.  
[Microsoft][ODBC SQL Server Driver][DBNETLIB]ConnectionOpen (Connect()))
```

This is usually logged when an attempt to archive a mail message has failed. Error Message 6 will follow this message

Possible causes:

- A network connection to a database machine or the database machine has failed. This occurs where the database is located on a separate machine.
- The database server has failed or been shut down.
- The machine running the database server has failed or been shut down.

Error Message 6

```
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(169): 06/17/04 10:23:44: WARNING:  
Failed to Archive message with ArtiSan.ArchiveEngine.1 IArchiveEngine 0x80004005 Failed  
to archive message ( Archiver.MailArchive.1 IMailArchive 0x80004005 Failed to open  
database with Unknown error ( Microsoft OLE DB Provider for ODBC Drivers IDBInitialize  
0x80004005 [Microsoft][ODBC SQL Server Driver][DBNETLIB]SQL Server does not exist or  
access denied.))
```

An attempt to archive a mail message has failed. Usually Error Message 5 will precede this message.

Possible causes:

- A network connection to a database machine or the database machine has failed. This occurs where the database is located on a separate machine.
- The database server has failed or been shut down.
- The machine running the database server has failed or been shut down.

Error Message 7

```
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(419): 06/17/04 12:33:38: WARNING:  
Failed to create MAPI profile for ACDTest:NARVIK with ProfMan.Service IService  
0x80040115 Failed to configure Exchange profile Could not configure the service
```

The system cannot access an Exchange profile. No mail messages will be processed by the scheduler.

Possible causes:

- The exchange server for the users mailbox has failed or been shutdown.

Error Message 8

C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(483): 06/17/04 12:36:17: WARNING: Failed to iterate mailbox for Administrator:NARVIK with [Collaboration Data Objects - [MAPI_E_FAILONEPROVIDER(8004011D)]]).

The system cannot iterate the folders/messages in an Mailbox. No mail messages will be processed by the scheduler

Possible causes

- The exchange server for the users mailbox has failed or been shutdown.

Error Message 9

C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(719): 06/17/04 12:35:00: WARNING: Failed to open ADSI object with (0x8007203a) The server is not operational.

The system cannot access the ADS. No mail messages will be processed by the scheduler

Possible causes:

- The ADS server has failed or been shutdown.

Error Message 10

C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(169): 06/17/04 13:50:28: WARNING: Failed to Archive message with ArtiSan.ArchiveEngine.1 IArchiveEngine 0x800406fd Failed to Test and Archive Message with Network problems are preventing connection to the Microsoft Exchange Server computer. [Microsoft Exchange Server Information Store - [MAPI_E_NETWORK_ERROR(80040115)]]

An attempt to archive a message has failed.

Possible causes

- The storage group for this mailbox/profile is unavailable.

Error Message 11

C:\Dev\Saxonite\Artisan\Engine\ArchiveEngineP.cpp(546): 06/17/04 13:50:32: WARNING: Collaboration Data Objects IDispatch 0x800445ed [Collaboration Data Objects - [E_FAIL(80004005)]]

The system cannot access a mail message. This is usually followed by the following error message.

Possible causes:

- The Exchange storage group for this mailbox/profile is unavailable.

Error Message 12

C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(169): 06/17/04 13:50:32: WARNING: Failed to Archive message with ArtiSan.ArchiveEngine.1 IArchiveEngine 0x800445ed Failed to convert MAPI message to CDO form for <013601c45460\$343293e0\$0500a8c0@local.net> (Unknown error 0x800445ed)

An attempt to archive a message has failed. This can be preceded by the previous message.

Possible causes:

- The Exchange storage group for this mailbox/profile is unavailable.

Error Message 13

C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(353): 06/17/04 13:50:32: WARNING: Failed to list folders with [Collaboration Data Objects - [E_FAIL(80004005)]]).

The system cannot iterate folders. No mail messages will be processed by the scheduler. This can sometimes be seen along with the following message.

Possible causes:

- The Exchange storage group for this mailbox/profile is unavailable.

Error Message 14

C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(353): 06/17/04 13:50:32: WARNING: Failed to list folders with [MAPI - [E_FAIL(80004005)]].

The system cannot iterate folders. No mail messages will be processed by the scheduler. This can sometimes be seen with the previous error message.

Possible causes:

- The Exchange storage group for this mailbox/profile is unavailable.

Error Message 15

C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(483): 06/17/04 13:50:32: WARNING: Failed to iterate mailbox for APBTest:NARVIK with [Collaboration Data Objects - [MAPI_E_FAILONEPROVIDER(8004011D)]].

The system cannot iterate a mailbox/profile. No mail messages will be processed by the scheduler.

Possible causes:

- The Exchange storage group for this mailbox/profile is unavailable.

Error Message 16

C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(169): 06/18/04 09:03:41: WARNING: Failed to Archive message with ArtiSan.ArchiveEngine.1 IArchiveEngine 0x8007007b Failed to archive message (Archiver.FileStorage.1 IStorageDriver 0x8007007b Failed to create output folder ((0x7b) The filename, directory name, or volume label syntax is incorrect.))

The system cannot archive a mail message. No mail messages will be archived by the scheduler.

Possible causes:

- The ArtiSan data store is unavailable

Error Message 17

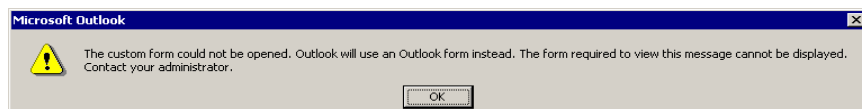
C:\Dev\Saxonite\Artisan\Scheduler\ScanThread.cpp(169): 07/07/04 09:04:39: WARNING: Failed to Archive message with ArtiSan.ArchiveEngine.1 IArchiveEngine 0x80070057 Failed to archive message (Archiver.MailArchive.1 IMailArchive 0x80070057 There are currently no enabled storage drivers)

The system cannot archive a mail message if there are not enabled storage drivers. No mail messages will be archived by the scheduler.

Possible causes:

- Release 26 problem concerned with local times. Internal error. Needs Saxonite intervention

Error Message 18



The popup box above appears in Outlook. This typically occurs either because the installation of the Outlook form (see install guide) has not been carried out or because there are two instances of the Outlook program running. The latter can happen because Outlook failed to shutdown properly or because the program is running on a terminal server with two or more users logged into the same account and using Outlook.

Error Message 19

Error Committing Transaction : -2141913011 Event Registration failure: The specified event sink (ProgID: %1) is not allowed to run in-proc.

Error Message 20

If you see an error in the Exchange log indicates that the Event Handler component in Components and Services has not been set up correctly. Refer to the installation manual.

If you see an error that says Security ID (SID) is not recognized then you are most likely dealing with a cloned machine image of another machine on the network. The resolution to this is to update the master SID on the image exhibiting the symptom. To refresh SIDs on a machine go to the I386 distribution (hiding in a CAB file) and run the SYSPREP tool which will allow you to re-run the initial setup and this will refresh the initial SID on the machine image fixing the duplicate SID issues between the original machine and the clones. (The SYSPREP tool is in a cab in the server distro, see <http://www.jsiinc.com/SUBN/tip6500/rh6513.htm> for more information.)

Error Message 21

If you need to get a user login to run as a service you need to make sure the local/domain security policy has explicitly granted that user ID the "Run as Service" policy permission. Remember if the Domain security policy is defined it will override the local policy. After changing the security policy remember to right click on the root of the policy tree and select refresh.

Error Message 22

On the Rules tab in the ArtiSan Manager you may get an error when trying to expand a user's mailbox subfolders. The error will be something to the effect of "Tree expansion error". This is due to the www publishing service not being started on the Exchange server.

Error Message 23

Impersonation was failing for the ArtiSanManager website and non-ArtiSan users. This has been seen when an ArtiSan server was a Domain controller. This prevented the ASPNET account from being created locally by the .Net framework install. Problem was resolve by demoting the machine to a normal domain computer and reinstalling the .Net framework.

Description

AmmDiagnostics is intended for administrators of ArtiSan.

AMMDiagnostics runs 3 types of tests:

- Web URL access
- Archive Engine access
- Database and Storage Driver access

If one full test succeeds, it results in retrieving the message from the archive and enabling the administrator to forward the message as an attachment to any email address. If the test succeeds, no further tests are performed.

If a test fails, the error is shown, and the next test starts.

Using this tool, if retrieving the message via the Web URL works first time, and a user has reported a problem, then this proves the problem is specific to that user. You need to check network and/or internet connectivity as applicable for that user to the Web URL he provided.

If the Web URL access fails, it will show an error. You need to investigate this error in order to fix the problem.

The following tests are made to retrieve the message and allow for it to be forwarded to the end user to help in minimising inconvenience when a problem occur and in cases when retrieving the archived message is of utmost importance.

It is important to understand that layer in this architecture relies on the layer underneath. If there is a problem with the Archive Engine, then it is very likely the Web URL access will fail too. If the storage device is down, all tests will fail.

When investigating a problem, always start with the last error message in the log, and then test again.

Web URL access

1) Create Instance of XML Library

Failure : Failed to create the msxml object. Is msxml installed? Check system32 for msxml.dll.

Success : Created MSXML object.

2) Open the URL

Failure : Failed initialising the request (open). Check the URL is valid.

Success : Initialised the request (open).

3) Send the HTTP Request

Failure : Failed sending the request (send). Check the URL is valid, check your network and/or internet connection (as required) works. Is the target server up and running? is it responding?

Success : Sent the request (send).

4) Getting the Result Status

Failure : Failed to get ready state. You should not see this message, something's gone wrong with the http request.

Success : Got ready state.

5) Checking the Ready State

Failure : The URL request is uninitialised (0), loading(1), loaded (2) or interactive (3), but not ready. Its ready state is < ready_state >. You shouldn't see this message as the request is synchronous.

Success : Ready state ok. (>=4)

6) Fetching the HTTP Status

Failure : Failed to get HTTP status code. It seems the request hasn't returned a response.

Success : Got HTTP status code < status >.

7) Checking the HTTP Status

Failure : Failed with HTTP status code: < status >, < status_text >. This is a standard code returned by the target web server, the problem therefore needs to be investigated on the web server side.

8) Getting the HTTP Response Text

Failure : Failed to get response body. The target web server has returned a response, but we can't get the response body.

Success : Got response body.

9) Creating the Message Object

Failure : Failed to create CDO Message while testing the Web URL. CDO should be installed as part of the Operating System (cdosys.dll for example) but also comes with CDONTS, Exchange server...

Success : Created CDO Message after testing Web URL.

10) Getting the Message Stream

Failure : Failed to get stream for the message. AMM Diagnostics Internal error.

Success : Got stream for the message.

11) Writing the Message Stream

Failure : Failed to write response text into message stream. AMM Diagnostics Internal error.

Success : Written response text into message stream.

12) Flushing the Stream

Failure : Failed to flush data to the message stream. AMM Diagnostics Internal error.

Success : Flushed data to the message stream.

Archive Engine access

1) Split URL

Failure : Failed to parse the URL. Check the asp page name is followed by a ? and name=value pairs separated by & with a = sign.

Success : URL Parsed.

2) Get Message ID

Failure : Failed to get the ID from the parsed URL. Check the URL, does it have an id followed by a value? E.g. http://server/page.asp?Id=ABCDEFGH

Success : ID extracted from parsed URL.

3) Creating the Archive Engine Instance

Failure : Failed to create the ArtisanMM.Engine object. Is the Artisan software installed? Check engine.dll typically in the installed Bin directory.

Success : ArtisanMM.Engine object created.

4) Retrieving the Archived Message

Failure : Failed to retrieve the message using the ArtisanMM.Engine object. The message Id might be incorrect or does not exist in the archive or another problem occurred.

Success : Message retrieved using ArtisanMM.Engine object.

Database and Storage Driver access

1) Split the URL

Failure : Failed to parse the URL. Check the asp page name is followed by a ? and name=value pairs separated by & with a = sign.

Success : URL Parsed.

2) Get Message ID

Failure : Failed to get the ID from the parsed URL. Check the URL, does it have an id followed by a value? E.g. http://server/page.asp?Id=ABCDEFGH

Success : ID extracted from parsed URL.

The following section deals specifically with DB connectivity (to retrieve driver and storage id)

3) Getting the DB DSN

Failure : No DSN name defined in Artisan configuration. Use ArtiSanManager web site to configure the DSN.

Success : DB DSN retrieved from Artisan configuration.

4) Getting the DB User

Failure : No DB username defined in Artisan configuration. Use ArtiSanManager web site to configure the DSN.

Success : DB username retrieved from Artisan configuration.

5) Getting the DB Password

Failure : No DB password defined in Artisan configuration (check DSN).

Success : DB password retrieved from Artisan configuration.

6) Opening the DB Connection

Failure : Failed to open connection to DB using details from DSN. Check the DSN details are correct on the ArtiSanManager web site. Also check the System DSN tab in Windows Data Source/ODBC settings, and make sure Test Connection is successful. Check the DB server is up.

Success : DB connection opened.

7) Query the Database

Failure : Failed to submit query to DB. The DB query wasn't parsed successfully by the DB server. Are there invalid characters in the URL? A full DB error message should precede this line.

Success : Submitted query to DB.

8) Getting the Storage Driver and Item IDs

Failure : Failed to get StoreDriver and Storage IDs fields from DB table. Retrieving values for fields StoreDriverId and/or StorageId returned an error. Check the DB table design.

9) Checking the Rows Returned

Failure : No record found for this message ID in DB table. This message Id doesn't seem to exist in the DB. Has this message been archived? Does the DB table contain any rows at all?

10) Checking for Row Duplicates

Failure : This message id exists more than once in the DB, this is not expected. You should never see this because of a DB constrain. Has the DB design been changed?

Success : StoreDriver and Storage IDs retrieved from DB table.

The following section deals with retrieving the actual data from the storage (code mainly copied/pasted from Archiver).

Section 11 deals with a specific driver, and section 12 with the default driver.

--- start of choice of path 11 or 12---

11a) Look Registry Key

Success: Found StorageDriver key in registry.

11b) Look for Storage Driver

Failure : Invalid storage drivers configuration: empty ProgId. The registry key for StorageDrivers exists, but hasn't got expected values (typically HKLM\\Software\\Illumin\\AMM\\StorageDrivers).

Success : Retrieved progID from registry.

11c) Create the Storage Driver

Failure : Failed to create Storage Driver instance from progID. This could be due to a bad installation of the Storage Driver. Maybe try to re-install? (progid=<value>)

Success : Created storage driver instance from progID.

11d) Initialise the Storage Driver

Failure : Failed to initialise storage driver. Instance was created successfully, but failed to initialise. (progid=<value>, StoreDriverID=<value>)

Success : Initialised storage driver.

12a) Using the Default Storage Driver

Success: No storage drivers configured in registry for archiving data, using default.

12b) Creating the Default Storage Driver

Failure : Failed to create default storage driver instance (Archiver.FileStorage object). Is the Artisan software installed? Check archiver.dll typically in the installed Bin directory. It needs to be registered.

Success : Default StorageDriver instance created.

12c) Initialising the Default Storage Driver

Failure : Failed to initialise the default storage driver. Instance was created successfully, but failed to initialise.

Success : Initialised the default storage driver.

--- end of choice of path 11 or 12---

13) Load the Message from the Archive

Failure : Failed to load message from store using storage driver. Is the storage unit up and running?

Success : Message loaded from store using storage driver.

14) Create the Message Instance

Failure : Failed to create CDO Message while testing DB and StorageDriver. CDO should be installed as part of the Operating System (cdosys.dll for example) but also comes with CDONTS, Exchange server...

Success : Created CDO Message while testing DB and StorageDriver.

15) Getting the Message Stream

Failure : Failed to get stream for the message. AMM Diagnostics Internal error.

Success : Got stream for the message.

16) Setting the Message Stream Type

Failure : Failed to make message stream binary. AMM Diagnostics Internal error.

Success : Changed message stream to binary type.

17) Writing the Message Stream

Failure : Failed to write binary stream from StorageDriver stream to message stream.
AMM Diagnostics Internal error.

Success : Written StorageDriver stream into message stream..

18) Flushing the Message Stream

Failure : Failed to flush data to the message stream. AMM Diagnostics Internal error.

Success : Flushed data to the message stream.

Frequently Asked Questions

How would someone in our support organization determine what the settings are?

The Licence key tool available to CSC can be used to decode the licence keys. In addition, the CSV stats log files contain the decoded settings.

What information is encoded into the licence key?

The three pieces of information (number of users, expiry and either the volume id or the IP address) is embedded into the key.

If policy archive is in place and user restores message; it is then archived again after 5 days. Is this time period configurable ?

Yes, it is configurable as a number of days, but this has to be done in the registry as there is no UI to change this. There may be a UI in the future though. Please refer to configurations.txt

Is the data shown for Monitoring purposes (i.e. No. of Scans, No. of items stored, etc.) stored and if so can custom reports be run against the data for historical reporting?

No, the statistics are only kept for 24 hours.

Can someone tell me what the Security settings play a role in enabling / disabling preview pane viewing of archived messages as stated in the user guide?

If you go to Tools/Options/Security (on the main window) there is a section on "Security Zones". This is a zone (or set of security settings) as defined in the MSIE options. You can select either "Restricted Sites" or "Internet". What this does is to apply the rules defined in the MSIE security options to content in HTML. Now the HTML stub includes an IFRAME which is regarded as Active Content and so if this is set to "Restricted Sites" then the IFRAMEs are disabled and so you do not see the content. If set to "Internet", everything is enabled. The consequence of all this is that you cannot define a set of settings for a particular web site, but rather have to choose between the most and least secure. I think almost all customers will want to leave it at "Restricted Settings", because to do the other thing would leave them wide open to Internet abuse. OWA also strips IFRAMEs at all times as well.

What comprises an "altered message"? If I Retrieve a message from the Archive and then edit the message and then Archive it again, will that mean the message is altered and then the Verify will tell the user accordingly?

Actually, in your scenario, it should be saved as a new message. Altered messages are those that have been manually tampered with at the back end of the system within the store.

Is the retention date calculated from the date of receipt or the date of archive?

It is done from date of receipt.

When a new user is created, how does one get the Outlook add-in buttons installed?

The user needs to add the add-in to Outlook from the options menu or register the DLL on the machine. To register it directly, Click Start/Run and in the box type:

```
C:\winnt\system32\regsvr32 "<INSTALLDIR>\bin\ArtiAddin.dll"
```

Where <INSTALLDIR> is the location of the ArtiSan install.

Do we capture - or offer the option to capture - Calendar Entries, Task lists, etc. in Mail Capture for Exchange?

Yes, there is an option documented in configurations.txt that allows capture of these items. However, there is currently no UI for this option and so the registry has to be manually edited. These types of items are never stubbed in the users mailbox.

Is the 'import' feature of PSTLoad effectively a drag and drop by the end user or could we do something better, i.e . a copy to the users Inbox on the server side?

The import facility will copy the content of the PST to any mailbox folder that you have the appropriate access rights for.

For PSTLoad to find PSTs, do they have to reside on network shares?

No, they simply need to be accessible to the account as they can be accessed through administrative shares assuming they are enabled. The PSTLoad is remotely searching the registry in the areas where mail profiles like PSTs are held and getting the information. This saves searching the whole drive, but means that if a user has deleted the profile, then the PST won't be found.

Most of the registry entries in Configurations.txt are missing. Is this right?

Yes, we only maintain registry values when the value differs from the documented default.

Can you see a way by which we can add a feature to not stub for x days and make this available as a rule?

Yes, it can be done using a non-generated VB Script rule. It is probably best to contact us, if you need to setup this type of rule.

What is Content Indexer?

The original name MS gave to the Index Server. It is the full text indexing system installed on W2K and above. When ArtiSan saves mail it does it in such a way that the content indexer understands and can index it.

Why do I keep getting prompted to save mail when viewing an archive?

It's a bug in Outlook that seems to have been fixed in Outlook 2003.

How do we do SIS when we capture same message from 2 different recipient mailboxes (mailbox crawling)?

It's all done by generating hash codes for messages.

What is Exchange WSS?

WSS is the Web Storage System. This is the technology that underpins the storage for both Exchange 2000 and above and Sharepoint.

What is SIS+?

The idea is that most duplicated items in the store are single instance. The exception is where an archived mail has BCCs, this results in an additional copy because the underlying mail is actually different (which is where the + comes from in SIS+).

What specific parts of the message are you using to create the hash code?

Header parts such as senders, recipients, dates and subject as well as the entire content of the mail including its attachments.

Does the SQL Server have to be on the ArtiSan processor?

No, it can be located anywhere as long as the DSN on the ArtiSan processor refers to the right database.

Can I use MSDE?

Yes, but I am not sure you would be saving much over the cost of a SQL server install.

Do I need a client install?

You only need a client side install if you need the Outlook add-in to do ad-hoc archiving. Otherwise you don't need to do anything on the client side.

What does ArtiSan require on the Exchange server?

It has a custom form installed in the organizational forms library. There are various account settings to be made in the Exchange Server and ADS configurations. In addition, there is an Exchange Event Handler that can be used to capture deleted messages that are unarchived. If you don't need these messages or if you are using deleted retention then this is not really required.