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# HighQSoft



## Technical Reference Sheet

Version 1.3

### Aop3Serser

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# Chapter 1

## Introduction

Athos is a toolkit to build ASAM-ODS products from basic components. Today the name Athos is also very often used to refer to our ASAM-ODS Server (Athos Server) or even our entire ASAM-ODS product line (Athos System).

Based on our flexible Athos Toolkit HighQSoft has developed a wide variety of products for managing your test data on Linux and MS-Windows based operating systems.

### **Higher efficiency**

By using our software products you have the possibility to work with all the data stored anywhere within your enterprise. Even old data, possibly no longer accessible due to migration to new hard- and/or software, may now be used and do not have to be recreated with great effort.

### **Distinct saving of time**

The products of HighQSoft GmbH (or LLC) are based on standards and make development of often very time-consuming and risky individual solutions unnecessary.

### **Reduced costs**

Due to many years of experience and close co-operation with our customers, we achieve safe results within a short time. These results are "on the point" and assure reduced costs in the future.

## **1.1 Introduction Athos Runtime System**

The Athos Runtime System is the backbone and the working engine of all Athos based products. The runtime system provides basic ASAM ODS functionality, which is the same on all supported operating systems (single source). The Athos Runtime System is written in plain ANSI-C for maximum portability. The provided functionality is utilized within Athos-based client and server applications.

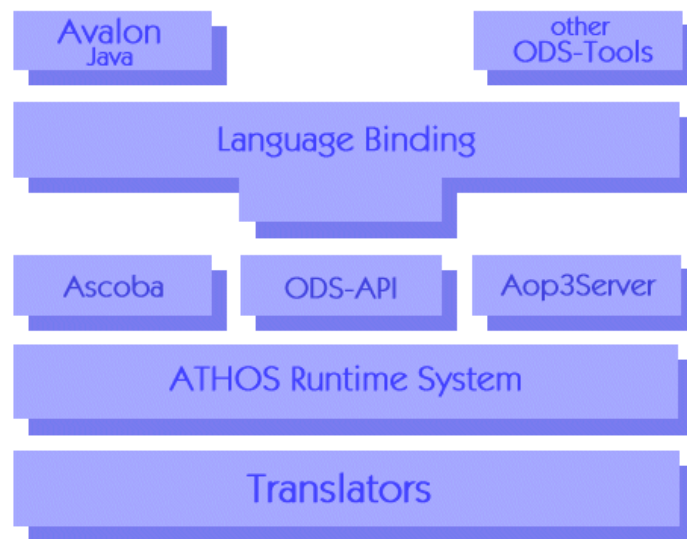


Figure 1.1: The Athos Runtime System

## 1.2 Introduction Aop3Server

The ASAM-ODS Protocol Level version 3 Server (Aop3Server), today also referred to as ASAM-ODS 3 Server is a remote procedure call (RPC) based application server for ASAM-ODS data. The Aop3Server implementation is a standalone application based on the Athos Runtime System. The server implements the latest version of the ASAM-ODS specification. The source code of this server is the same on all supported operating systems (single source). The Aop3Server is written in plain ANSI-C for maximum portability.

## Chapter 2

# Requirements

No special software products are required. About 50 MB of free disk space is needed for a normal Athos installation. Volatile memory consumption of the Athos Runtime System depends on the application data volume plus approx. 1MB for the runtime system code. The required disk space for compilation and linking of the complete Athos System is 400 MB for all source, temporary and output files.

### 2.1 Requirements Athos Runtime System

There are no special requirements for the Athos Runtime System.

If the Athos Runtime System should run in multithreaded mode, only Microsoft Windows NT, Microsoft Windows 2000, Microsoft Windows XP, Microsoft Windows 2003 and Linux are supported.

### 2.2 Requierements Aop3Server

No special software products besides the Athos Runtime System and the appropriate translator (driver) are required on most operation system. On Microsoft Windows based operating systems a portmapper must be installed. On most other operating systems a portmapper is available by default. The installation and usage of this portmapper is described in this document. The disk space and volatile memory requirements of the Aop3Server do not add a significant amount to the Athos Runtime System (appr. 100 Kbytes only).





# Chapter 3

## Installation

The installation of the Athos Toolkit depends on the installation of the used components. The installation of the Athos Runtime System is required before the other components can be installed.

### 3.1 Installation Athos Runtime System

#### 3.1.1 Win32

Normally the Athos Runtime System and the corresponding products are delivered with an installer, follow the directives of the installer.

However when the installer doesn't work, you can do the installation manually.

Copy the directory **athos** from the CD to your hard drive. Then go into the directory **athos** on your hard drive and execute the following command:

```
setupathos.bat 'drive and directory'\athos
```

This command will extend the path with the directory **athos\bin\win32**. The environment variable **ATHOS\_ROOT** will be set. An entry in the registry for the eventlog will be added. The Windows registry key "HKEY\_LOCAL\_MACHINE\\SYSTEM\\CurrentControlSet\\Services\\Eventlog\\Application\\Athos" is added.

#### 3.1.2 Unix

Unpack the **asamtools\_<unix>\_bin\_x-xx** from the respective Unix directory of the ASAMTools CD. Set the environment variable **ATHOS\_ROOT** and extend the **PATH** with **bin/unix** directory.

### 3.2 Installation Aop3Server

The installation of the Aop3Server is an integral part of the Athos Runtime System installation. Due to the compact size of this application we decided not to set up a separate installation procedure. All required components are available when the Athos Runtime System has been installed. This is valid for all supported operating systems. For Microsoft Windows operating systems, the steps in the chapter Installing and Running the Portmapper of this document has to be followed.

The installation of the Aop3Server as a Windows NT Service needs some more steps, see the chapter Installing the Aop3Server as a Windows NT Service in this document.

### 3.2.1 Installing and Running the Portmapper (Microsoft Windows only)

The portmapper is used for the connection of the RPC-number to a certain port. Without the portmapper, a connection between server and client is not possible. The portmapper may be started by any other software component. If there is no portmapper, the portmapper must be installed and started before the server is started.

On Windows NT the portmapper is a service, which will be started from the system on demand.

#### Check portmapper existence.

Go to <Settings> <Control Panel>, activate the icon <Services>, check if the service <portmap> is listed. If the service <portmap> is available the portmapper is installed.

#### Install portmapper.

After the Athos Runtime System has been installed, start a console window, and enter the following command:

```
inst_pm %ATHOS_ROOT%\bin\win32\portmap.exe
```

#### Check the existence of the portmapper again.

There is no automatic update of the service window, so close the service window and activate the icon <Services> again (as described in Check portmapper existence).

#### Start portmapper.

Go to <Settings> <Control Panel>, activate the icon <Services> (as shown above to check the portmapper existence), and activate the service <portmap> in the list of services. Push the button <start>. If you like to start the portmapper automatically change the <startup> of the service <portmap> to automatic. At the next startup of the system, the portmapper will start automatically.

On Windows 95/98 there are no services so the portmapper cannot be started as a services. There is a program called `pm_ascii`. This program can be started in a command window.

#### Removing the Portmapper

First, be sure to stop the portmapper before trying to uninstall it. Do this by looking in your Services List and check if the Service "Portmap" is at status "halted". The portmapper can be removed with one simple command.

```
inst_pm remove
```

### 3.2.2 Installing the Aop3Server as a Windows service (Microsoft Windows only)

The installation of a Windows service is identical for Windows NT, Windows 2000 and Windows 2003, the location of the services and the appearance of the dialog may differ on the different system and when the system language changes.

The portmapper must be installed first before the Aop3Server can be installed as a Windows service, see chapter Installing and Running the portmapper. It is not necessary to start the



portmapper. The Aop3Server as Windows NT service will start the portmapper automatically if the portmapper is not running when the portmapper is configured as a depending Windows NT service (see chapter Aop3Server Configuration Variables, variable `DEPENDS_ON`).

The installation of the Athos Runtime System sets the environment variable `ATHOS_ROOT` in the user environment, because not all users are allowed to set environment variables in the system environment. The Aop3Server as a Windows NT service has no user environment so the environment variables must be part of the system environment.

**!!! For the next steps the user needs administrator rights on system.**

Set the environment variables `ATHOS_ROOT` (See Technical Reference Sheet of the Athos Runtime System) and `AOP3SERVER_INI` (See below chapter Aop3Server Configuration Variables) in the system environment. The following figure shows an example of the environment with the variables `ATHOS_ROOT` and `AOP3SERVER_INI`.

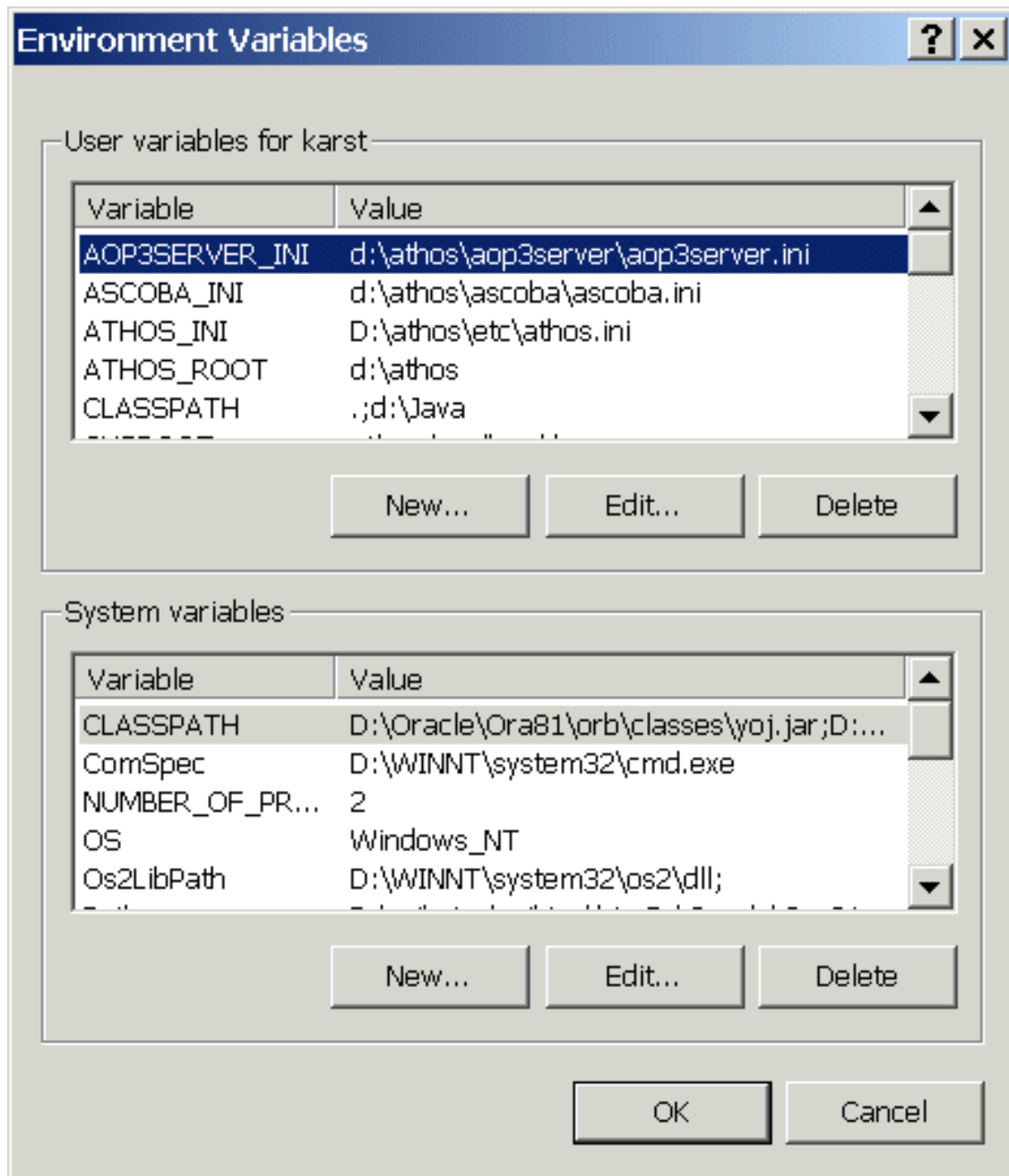


Figure 3.1: Example of the System Environment

#### Install the Windows NT service

After the Athos Runtime System has been installed, start a console window, and enter the following command:

```
installservice "Name of the Service"
```

The "Name of the Service" must be the name of a service in the file pointed by the environment variable AOP3SERVER\_INI. The name of the service is case sensitive. The following figure shows the list of the Windows NT services of the command:

```
Installservice "Athos Server Motor"
```

The Windows registry key "HKEY\_LOCAL\_MACHINE\\SYSTEM\\CurrentControlSet\\Services" is modified.

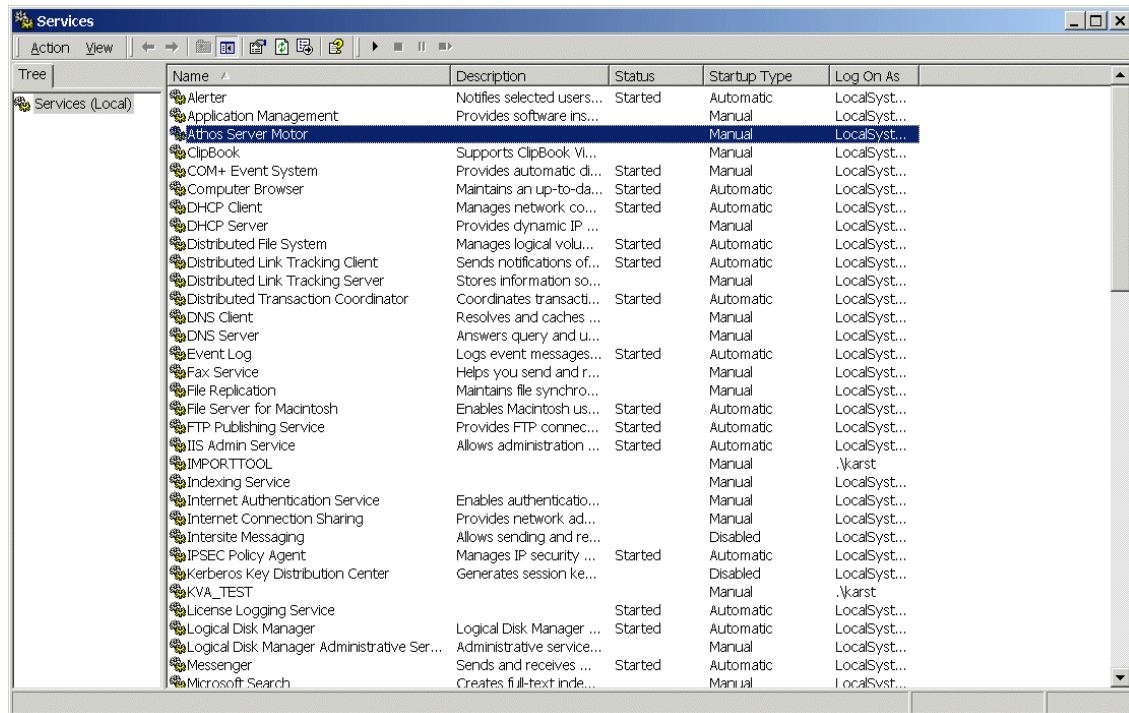


Figure 3.2: List of services

This list can be found in \controlpanel\administrative tools\services.

### Uninstall the Windows NT service

After the Athos Runtime System has been installed, start a console window, and enter the following command:

```
removeservice "Name of the Service"
```

The "Name of the service" is the name shown in the <Settings> <Control Panel> and the icon <Services>, which is also used at the **installservice** command. The "Name of the service" in the example above is 'Athos Server Motor' the executable is not removed from disk, the Windows NT registry key "HKEY\_LOCAL\_MACHINE\\SYSTEM\\CurrentControlSet\\Services" is modified.

### Startup of the Windows NT service

After the Aop3Server is installed as Windows NT service, the startup of the service is set to <Manual>. If you like to start the Aop3Server automatically change the <startup> of the service to automatic. The following figure shows the startup window (choose <automatic>). At the next startup of the system, the Aop3server will start automatically.

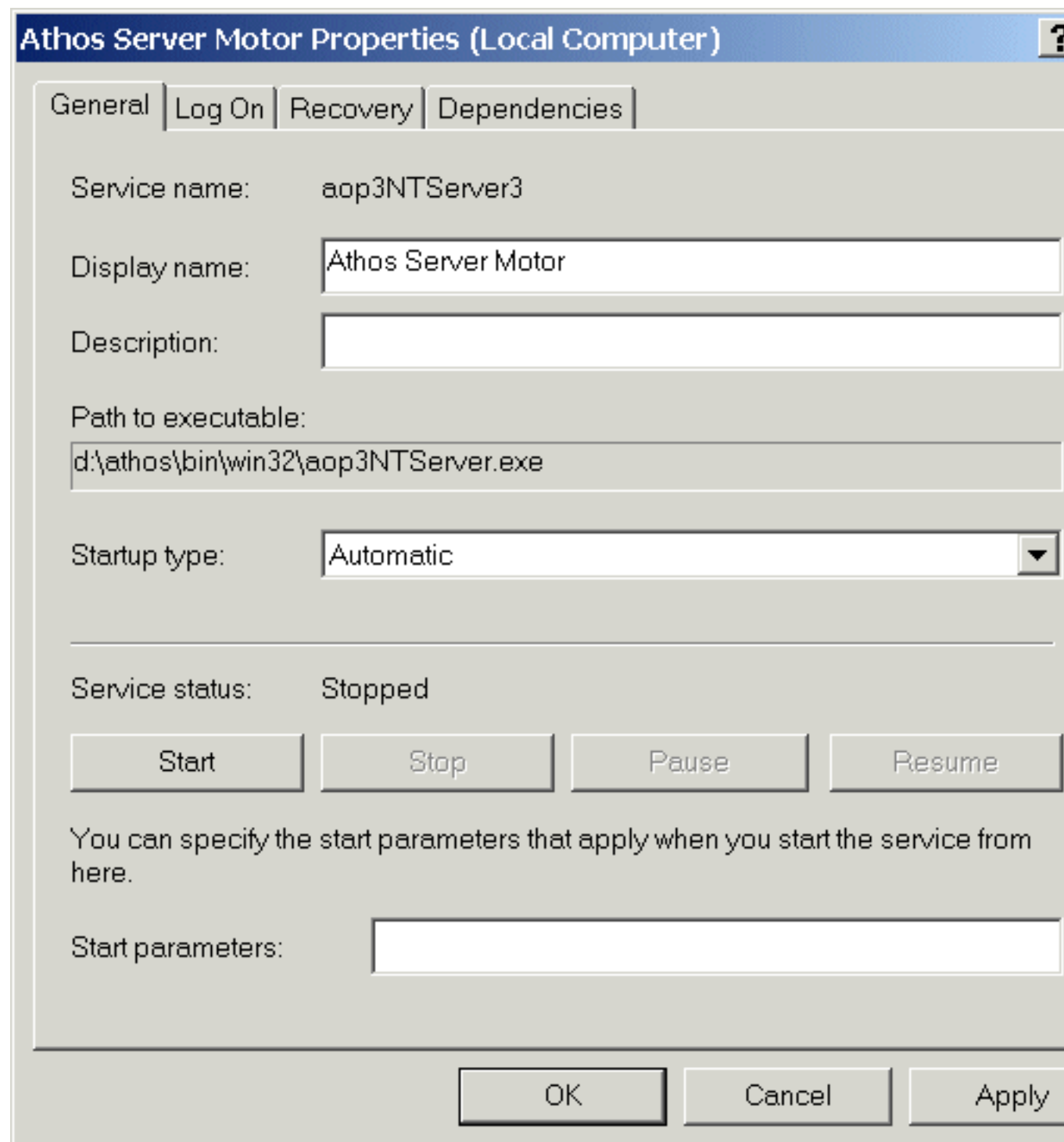


Figure 3.3: Athos Server Motor

general" properties" width=

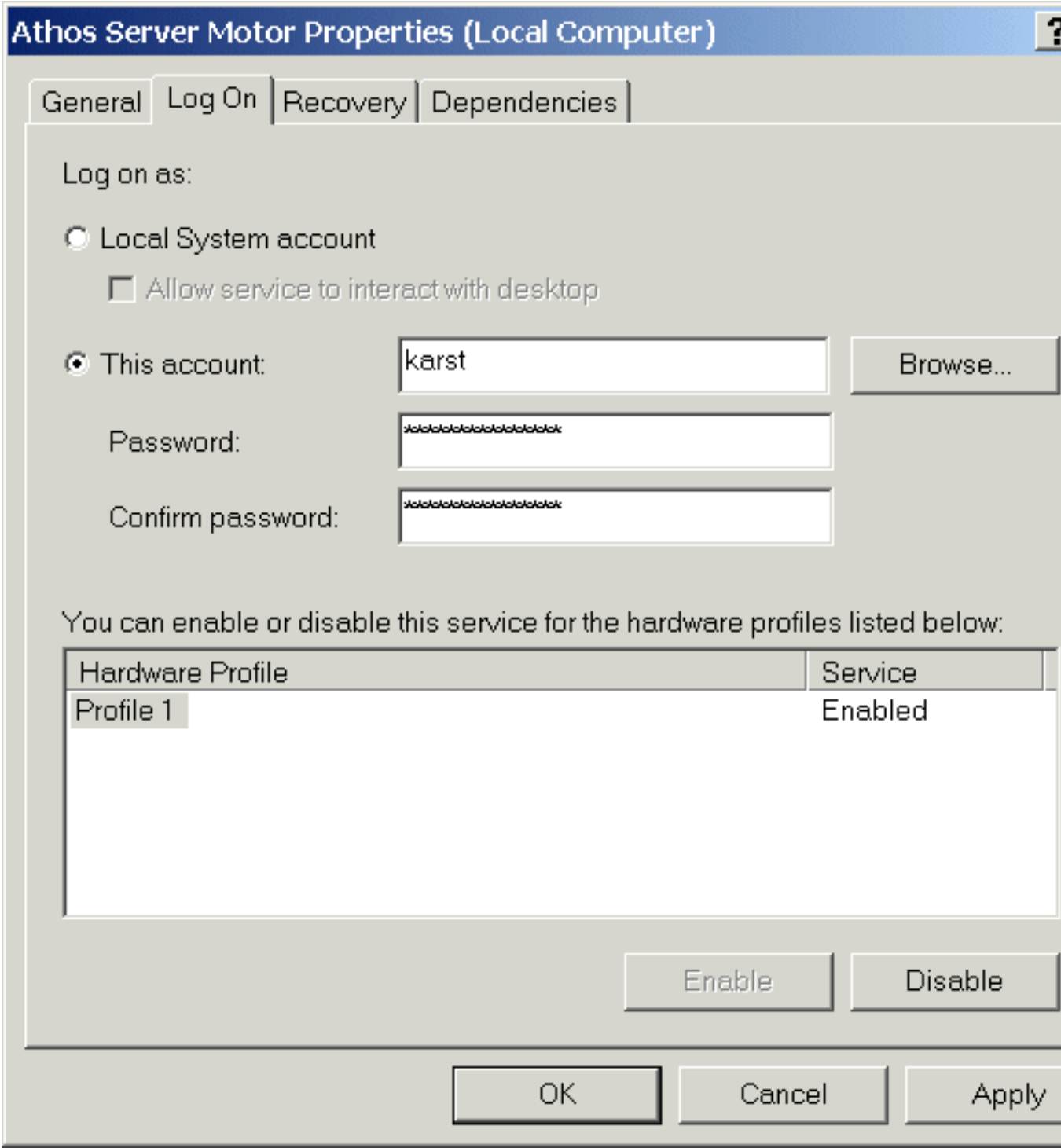


Figure 3.4: Athos Server Motor

log on" properties" width=

If you like to startup the Aop3Server from another user account, you can set the environment variables ATHOS\_ROOT and AOP3SERVER\_INI in the user environment instead of the system envi-



ronment.

**!!! Caution:** No substitution of the environment variables is done by the system for the Aop3Server as a Windows NT service. Therefore, do not use the environment variable ATHOS\_ROOT in the environment variable AOP3SERVER\_INI.

### 3.2.3 Installing the Aop3Server as an UNIX daemon (Unix systems only)

The portmapper is normally started on the Unix-systems as a daemon automatically and no action must be taken. It is important to start first the portmapper and the other required daemons, like the database engine, before the Aop3server can be started.

An UNIX daemon has no user environment, so the definitions in the INI-File like ATHOS\_ROOT, OSTYPE or the name of the INI-File AOP3SERVER\_INI are not available for the Aop3Server daemon. There are two ways to solve this problem

1. Start the daemon with options for a configuration file. With different configuration files it is possible to start more then one daemon on the system. Use the arguments '-f configuration-file'
2. Start the daemon without options, the daemon read the configuration form the file '/etc/aop3server.conf'. This way is it not possible to start more then one Aop3Server daemon on the system.

The format of the configuration file is at both ways identical. The format of a line is:

```
ENVIRONEMT-VARIABLE = VARIABLE-VALUE
```

Semi-column at the beginning is a comment line.

An example of a configuration file is given below:

```
ATHOS_ROOT = /home/karst/athos
OSTYPE = Linux
AOP3SERVER_INI = /home/karst/athos/aop3server/aop3server.ini
SLEEP_TIME = 20
; This is a comment line.
; The following lines have an error.
This = "A wrong value
This line has no value
```

There is a new configuration variable defined, called SLEEP\_TIME, this variable is only used when the server starts as a daemon. Put this variable in the configuration file. See chapter Aop3Server Configuration Variables, variable SLEEP\_TIME.

The way a daemon must be installed, depends on the UNIX operating system, there are still difference between the different UNIX-derivates, please contact your system administrator how to install the daemon.

The deamon write the first messages in the log-file /var/log/aop3server.log . If the direcorry '/var/log' doesn't exist please create that directory with all rights for the user which will starts the aopserver.





### 3.2.4 Installing the Aop3Server as an UNIX daemon on Linux

Login as a system administrator.

Create a start up script in the directory

`'/etc/rc.d'`

. Down here an example script with the name "aop3server" is given

```
#!/bin/sh
# Copyright (c) 1996 S.u.S.E. Gmbh Fuerth, Germany. All rights reserved.
#
# Author: Bodo Bauer <bb@suse.de>
#         Rolf Haberrecker <rolf@suse.de>
#

# The echo return value for success (defined in /etc/rc.config).
return=$rc_done

case "$1" in
    start)
if test -x /home/karst/athos/bin/Linux/aop3server ; then
    echo -n "Starting service aop3server"
    startproc /home/karst/athos/bin/Linux/aop3server -f /home/karst/aop3server.conf || return=$rc_failed
    echo -e "$return"
fi
        ;;
    stop)
echo -n "Shutting down service aop3server"
killproc -TERM /home/karst/athos/bin/Linux/aop3server || return=$rc_failed
echo -e "$return"
        ;;
    *)
echo "Usage: $0 {start|stop}"
exit 1
esac

# Inform the caller not only verbosely and set an exit status.
test "$return" = "$rc_done" || exit 1
exit 0
```

This file shows the start and stop of the Aop3Server located in the directory `"/home/karst/athos/bin/Linux"` with the configuration file `"/home/karst/aop3server.conf"`. This file is located in the directory `"/etc/rc.d"`.

Change the mode of the file to executable, whit the command below:

```
chmod 744 aop3server
```

We start the server at Init level 2, so in the directory `"/etc/rc.d/rc2.d"`, two links will be created. One link to start the server and the other link to stop the server.

Command to start the server :

```
ln -s ../aop3server S41aop3server
```

The server will be started at the 41st position, all daemon with smaller number will be stated first.

Command to stop the server

```
ln -s ../aop3server K10aop3server
```

The server will be stopped at the 10th position, all daemon with smaller number will be stopped first.

The Aop3Server daemon write the startup information, and all runtime debug information, when no AOP3\_LOGFILE is defined, in the file "/var/log/aop3server.log".

Manual start or stop of the aop3server daemon can be done with the following commands:

```
/etc/rc.d/aop3server start
```

```
/etc/rc.d/aop3server stop
```

### 3.2.5 Installing the Aop3Server as an UNIX daemon on SunOS

Login as a system administrator.

Create a start up script in the directory '/etc/init.d'. Down here an example script with the name "aop3server" is given

```
#!/sbin/sh
# Copyright 12/24/96 Sun Microsystems, Inc. All Rights Reserved.
#pragma ident  "@(#)aop3server 1.14 01/03/24 Sun Microsystems"

#
# Return pid of named process in variable "pid"
#
pidproc() {
pid='/usr/bin/ps -ef |
/usr/bin/grep $1 |
        /usr/bin/sed -e 's/^ *//' -e 's/^[a-zA-Z_0-9]* *//' -e 's/ .*//''
}

#
# Kill named process(es)
#
killproc() {
pidproc $1
[ "$pid" != "" ] && kill -9 $pid
}

case "$1" in
'start')
if [ -x /export/home/karst/athos/bin/SunOS/aop3server ]; then
        echo "Starting daemon aop3server"
/export/home/karst/athos/bin/SunOS/aop3server -f /export/home/karst/aop3server.conf &
fi
;;
'stop')
killproc aop3server
;;
*)
echo "Usage: /etc/init.d/init.dmi { start | stop }"
;;
esac
exit 0
```

This file shows the start and stop of the Aop3Server located in the direc-



tory "/export/home/karst/athos/bin/SunOS" with the configuration file "/export/home/karst/aop3server.conf". This file is located in the directory "/etc/rc.d".

Change the mode of the file to executable, with the command below:

```
chmod 744 aop3server
```

We start the server at Init level 2, so in the directory "/etc/rc2.d", two links will be created. One link to start the server and the other link to stop the server.

Command to start the server :

```
ln -s ../init.d/aop3server S98aop3server
```

The server will be started at the 98th position, all daemon with smaller number will be started first.

Command to stop the server

```
ln -s ../init.d/aop3server K09aop3server
```

The server will be stopped at the 9th position, all daemon with smaller number will be stopped first.

The Aop3Server daemon write the startup information, and all runtime debug information, when no AOP3\_LOGFILE is defined, in the file "/var/log/aop3server.log". <p> Manual start or stop of the aop3server daemon can be done with the following commands:

```
/etc/init.d/aop3server start
```

```
/etc/init.d/aop3server stop
```

### 3.2.6 Installing the Aop3Server as an UNIX daemon on HP-UX

Login as a system administrator.

Create a start up script in the directory '/sbin/init.d'. Down here an example script with the name "odsaop" is given

```
#!/bin/sh
#
# Athor:      TROST CLAUDIA/FAT11/PORSCHE AG/27.06.2002
# Function:   aop3server is starting/stopping for athos
#
# The echo return value for success (defined in /etc/rc.config).
return=$rc_done

case $1 in
start)
if [ -f /home/karst/athos/bin/HP-UX/aop3server ] ; then
echo "Starting service aop3server"
/home/karst/athos/bin/HP-UX/aop3server -f /home/karst/aop3server.conf
fi
;;
stop)
pid=`ps -ef | grep aop3server | cut -c10-14`
if [ "X$pid" != "X" ]; then
if kill $pid; then
```

```

echo "Shutting down service aop3server"
else
echo "unable to stop service aop3server"
fi
fi
;;
*)
echo "Usage: $0 {start|stop}"
exit 1
esac

exit 0

```

This file shows the start and stop of the Aop3Server located in the directory "/home/karst/athos/bin/HP-UX" with the configuration file "/home/karst/aop3server.conf". This file is located in the directory "/etc/rc.d".

Change the mode of the file to executable, with the command below:

```
chmod 744 odsaop
```

We start the server at Init level 2, so in the directory "/etc/rc2.d", two links will be created. One link to start the server and the other link to stop the server.

Command to start the server :

```
ln -s ../init.d/odsaop S98aop3server
```

The server will be started at the 98th position, all daemon with smaller number will be started first.

Command to stop the server

```
ln -s ../init.d/aop3server K09aop3server
```

The server will be stopped at the 9th position, all daemon with smaller number will be stopped first.

The Aop3Server daemon write the startup information, and all runtime debug information, when no AOP3\_LOGFILE is defined, in the file "/var/log/aop3server.log".

Manual start or stop of the aop3server daemon can be done with the following commands:

```

/sbin/init.d/odsaop start

/sbin/init.d/odsaop stop

```

## Chapter 4

# Configuration

The configuration of the components of the Athos toolkit is generally done by setting environment variables and usage of an INI-File. Before the components are configured, the configuration of the Athos Runtime System must be done first. See: **Configuration Athos Runtime System**(p. 17).

### 4.1 Configuration Athos Runtime System

The Athos Runtime System is highly configurable and adaptable for a multitude of different requirements. The configuration may be done via environment variables and via definitions in initialization files. For most cases the built-in defaults of the Athos Runtime System will be sufficient. However, for special cases it may be necessary to configure some options for your requirements.

The environment variable `ATHOS_ROOT` is used to define the root directory of the Athos system. If this environment variable is not defined, the definition of `ATHOS_ROOT` in the INI-File is used as default. See: **Athos Runtime System Configuration variables**(p. 39).

The name of the INI-File or the name of the environment variable containing the INI-File name may be passed to the Athos Runtime System at time of initialization. This allows Athos-based applications to specify their own application initialization filename environment variable (e.g. `MYAPP_INI` instead of `ATHOS_INI`) to avoid collisions with other applications environment variables.

If no `ATHOS_ROOT` is defined, no INI-File name and no environment variable containing an INI-File name can be found, the Athos Runtime System tries to open the file `athos.ini` in the current working directory as default. If this also fails, a corresponding message is written to the Event Log on Win32 or the default log file `ATHOS_ROOT/log/asam_err.log`. If the log directory can not be located (e.g. because of missing `ATHOS_ROOT` definition) the log file `asam_err.log` is written to the current working directory. If the log file cannot be opened for any reason, the Athos messages are lost.

The table in this document shows all supported configuration variables including their names, descriptions, default values and source. The source of a configuration variable may be the system environment or the Athos INI-File. The global keyword denotes variables that may be defined in the global section of the Athos INI-File. The global section in the INI-File is marked by the string `[ATHOS]`.

The configuration variables of the Athos Runtime System are given in **Athos Runtime System Configuration variables**(p. 39).

AthosConfig is a tool which helps you to edit the INI-File. You can start the tool with the following

command:

```
java -jar\AthosConfig.jar
```

**Note:**

The tool will reorganize the INI-File.

## 4.2 Configuration of the Athos Runtime System on Linux

The Athos Runtime System switch automatically into multithreaded mode on Windows system. On Linux system there is no automatic switch into the multithreaded mode, so the configuration of the Athos Runtime System must explicit force the multithreaded mode.

The global INI-File variable **MULTITHREADABLE** = yes must be used to force the multithreaded mode and do the required initialization. The Athos Runtime System will probably crashes when multithreaded access is done without the initialization.

## 4.3 Configuration of the security in the Athos Runtime System

There are two configuration variables available for the security configuration. The two variables, **IGNORE\_SECURITY** and **NOSECURITYACTIVE**, have the same meaning, but **IGNORE\_SECURITY** tells the 'server' (AVALON or Aop3Server) to ignore the security and **NOSECURITYACTIVE** tells the Athos Runtime System not to check the objects added from the translators.

Disabling security is done by setting both variables to YES in the INI-File. Normally a server is available for the security, so the variable **NOSECURITYACTIVE** = **YES** will not change and the security will be activated by comment out of the variable **IGNORE\_SECURITY**.

## 4.4 Configuration of the Windows event viewer

The Windows event viewer is able to show a textual explanation of the error message. The event viewer need a file with the text of the messages. This file is registered during setup or installation of the Athos Runtime System. However when the messages don't occur you can register athos at the event viewer also afterwards with the following commands executed in the Windows console.

```
cd %ATHOS_ROOT%  
bin\Win32\instsrc" Athos "%ATHOS_ROOT%\bin\win32\athos.dll" 2
```

This command is part of the batch file **setupathos.bat**

## 4.5 Configuration Aop3Server

The Aop3Server is highly configurable and adaptable to a multitude of different requirements. The configuration may be done via an initialization file as described in the Athos Runtime System Technical Reference Sheet.



The table in this document shows all supported configuration variables including their names, descriptions, default values and source. The source of a configuration is the Aop3Server INI-File. All Athos Runtime System configuration variables are also considered since this server implementation is written on top of the Athos Runtime System.

Set the environment variable AOP3SERVER\_INI and edit the file where this variable points to (as shown **Initialization File Example Aop3Server**(p. 27)). For a detailed description of the file see **Configuration Athos Runtime System**(p. 17).

## 4.6 Usage Aop3Server Wildcard characters

There are entries in the INI-File to define the wildcard characters for the server. There are two sets of entries defined in the service part of the INI-File, the wildcard characters used by the client and the wildcard characters used by the translator for the datastorage.

The wildcard characters used by the client for the access to the server are the entries WILDCARD\_ONE, WILDCARD\_ALL and WILDCARD\_ESC. The default values are defined in the ASAM ODS documentation. The defaults are listed below and given in the chapter AOP3Server Configuration Variables.

```
WILDCARD_ONE = ?
WILDCARD_ALL = *
WILDCARD_ESC = \
```

For a client which not knowing anything about version 3.2 the client can expect not the ASAM ODS defined values but the ORACLE defined values. Set in the INI-File the following entries for that old clients.

```
WILDCARD_ONE = _
WILDCARD_ALL = %
```

The client which supports the ASAM ODS version 3.2 can set the parameters the way they need with the method setpar.

The wildcard characters used by the translator for the access to the datastorage are documented in the technical reference sheet of the used translator. The most common wildcard character handling of the translators are given below, but check the translator specific documentation for detailed and correct information. The most translator use the definitions WILDONE, WILDALL and WILDESC. The default values of these parameter are the ASAM ODS defaults and given below.

```
WILDONE = ?
WILDALL = *
WILDESC = \
```

For a database oriented storage the following parameters are required.

```
WILDONE = _
WILDALL = %
WILDESC = [
```

There are some ORACLE installations which required the following parameters for the aod1 and aod2 translator.

```

WILDONE = _
WILDALL = %
WILDESC = \
USE_ORACLE_ESCAPE = YES

```

In **Aop3Server Configuration variables**(p. 48) is the explanation of all AOP3Server configuration variables given.

## 4.7 Aop3Server handling Configuration Variables

The configuration variables are normally defined in the INI-File or the system environment. At startuptime, the Aop3Server reads the system environment variables and the INI-File, so all configuration variables stay constant for the run of the Aop3Server. There are some configuration variables which can be changed at runtime. Some variables change only the configuration of the current session other variables will change the behaviour of the Aop3Server. The variables are case sensitive.

The following variables change the current session:

```

USER and PASSWORD
WILDCARD_ALL
WILDCARD_ESC
WILDCARD_ONE

```

The following variables change the behaviour of the Aop3Server:

```

AOP3_LOGFILE
DEBUGLEVEL

```

Utilities are available to get or set the variables. AsamGetPar reads a variable from the Aop3server. AsamSetPar writes a variable to the Aop3Server.

Usage of asamSetPar:

```
asamsetpar service parameter value [datatype]
```

where:

```

service:      The service name in ATHOS_INI (environment variable).
parameter :   The name of the configuration variable.
value :       The new variable value
datatype:     The datatype of the variable value. This parameter is optional, the default is DT_STRING

```

Usage of asamGetPar:

```
asamgetpar service parameter
```

where:

```

service:      The service name in ATHOS_INI INI (environment variable).
parameter :   The name of the configuration variable.

```

## 4.8 AOP3Server and Security

There are three different mode to start the AOP3Server concerning to the security.





1. No security active, there is no security active all users have access to all application elements, application attributes and all instances elements, there will be never a security check done. There is no security check on connect to the server,
2. Security active for the instance element access, there is only a security active instance element access methods like getval, putval, getvalval, putvalval etc.. Whitout an valid authentication the access to the application modell and the session parameter are allowed. This mode is required for Concerto and DiaDem. After a valid authentication the access is allowed to the instances and the access is checked for the access rights.
3. Security active starting with openenv. There is no access allowed to the server without a valid authentication. Only with a valid authentication at openenv access is allowed to the server, after the authentication all access is checked for the access rights.

All clients call the same methods of the AOP3Server. The methods are to connect to the server, read the application modell, parameter handling, access the instance information and access the measurement data. The following shema show the way an client calls the server.

Method	Description	Security mode
OpenEnv	Connect to the server	3
GetApplInf GetAttr	Read application structure.	3
GetParSetPar	Parameter handling.	3
GetVal PutVal GetInstRef SetInstRef	Access to instance information.	2, 3
GetValAttr GetValInf GetValVal PutValVal	Access the measurement data.	2, 3

These three modes can be controlled by the entries in the INI-file. The enties in the INI-File are IGNORE\_SECURITY and USER. All the services using security should have the entry "ODSVERSION = 3.2" in the service part of the INI-File.

Mode 1:

Set the entry "IGNORE\_SECURITY = YES" in the service part of the INI-File. The value of the entry "USER" has no meaning.

Eg:

```

..
..
[SERVICE "Free/Access"]
..
..
IGNORE_SECURITY = YES
..
..

```

Mode 2:

No entry "IGNORE\_SECURITY" or an entry "IGNORE\_SECURITY = NO" in the service part of the INI-File. No entry "USER" in the service part of the INI-File.

Eg:

```

..
..
[SERVICE "Security/Instance"]
..
..
IGNORE_SECURITY = NO
;USER = none ; Comment line
ODSVERSION = 3.2
..
..

```

### Mode 3:

No entry "IGNORE\_SECURITY" or an entry "IGNORE\_SECURITY = NO" in the service part of the INI-File. An entry "USER = none" where "none" is not a valid ASAM ODS user in the service part of the INI-File.

Eg:

```

..
..
[SERVICE "Security/All"]
..
..
;IGNORE_SECURITY = YES ; Comment line
USER = none
ODSVERSION = 3.2
..
..

```

If you like to give guests-users access to a well defined number of instance, you can use this mode by adding the guest user and usergroup to the storage, and set the entries "USER" and "PASSWORD" for this user in the INI-File. In this case all users without any authentication will be exact the given user.

Eg:

```

..
..
[SERVICE "Security/GuestAccess"]
..
..
;IGNORE_SECURITY = YES ; Comment line
USER = guest
PASSWORD = secret
ODSVERSION = 3.2
..
..

```

For Concerto there is another entry in the service part of the INI-file required.

```
SECURITY = "2 DT_LONG READONLY"
```

This line set the parameter "SECURITY" of datatype DT\_LONG to a value of 2. This parameter is readonly and can't be changed by the call of setpar. This parameter isn't used by the Aop3Server but will be returned to the client on request. In all cases the INI-Variable **NOSECURITYACTIVE = YES** must be used because the server handles the security and not the level between the Athos Runtime System and the translator.

In **Aop3Server Configuration variables**(p. 48) is the explanation of all AOP3Server configuration variables given.

## 4.9 The convertfile in Aop3Server

The Aop3Server supports converting ASAM ODS definitions into none ASAM ODS definitions. The conversion is only use at the output of the server for the application model.

The following definitions can be converted by the server:

- BASEELEMENT converts the base element Id, like 0 int 99 for AoAny.
- BASEATTRIBUTE converts base attribute definitions from the ATF-File into ASAM ODS base attributes, like DATATYPE into AODT.
- DATATYPE converts datatype number, like 10 to 12 for DT\_BLOB

An example of a convertfile:

```
[BASEELEMENT]
DATATYPE = Int4 : Int4
0 : 99 ; AoAny
[BASEATTRIBUTE]
DATATYPE = STRING : STRING
; Datatype in measurement quantity.
datatype : AODT
; Relation between AoSubTest and AoMeasurement.
test : TSTID
; Relation between AoTest and AoSubTest.
parent_test : TSTID
; Relation between AoMeasurement and AoMeasurementQuantity.
measurement : MEAID
; Relation from AoMeasurementQuantity to AoQuantity.
quantity : DNAID
; Relation from AoMeasurementQuantity to AoUnit.
unit : DUNID
; Relation from AoQuantity to AoUnit.
default_unit : DUNID
; Relation between AoUnit and AoPhysicalDimension
phys_dimension : DIMID
; Scale factor
factor : GAIN
; reference between AoTest and AoEnvironment
environment : ENVID
; Description of environment
description : ENVDESCR
```

In **Aop3Server Configuration variables**(p. 48) is the explanation of all AOP3Server configuration variables given.

### 4.9.1 Usage of the convertfile.

In the Aop3Server there are, depending on the translator, two place to set a convertfile. These two convertfile have different usages. The configuration variables AOP3\_CONVERTFILE and CONVERTFILE at the service are both used and have different functionality. The AOP3\_CONVERTFILE converts the out of the AOP3Server to the client, the CONVERTFILE converts between the datastorage and ATHOS Runtime System. You can use different convert files for AOP3\_CONVERTFILE and CONVERTFILE. The AOP3\_CONVERTFILE is a global INI-File variable which should be placed in the INI-File used by the environment variable AOP3SEVER\_INI. The following figure shows the usage of the convert files.

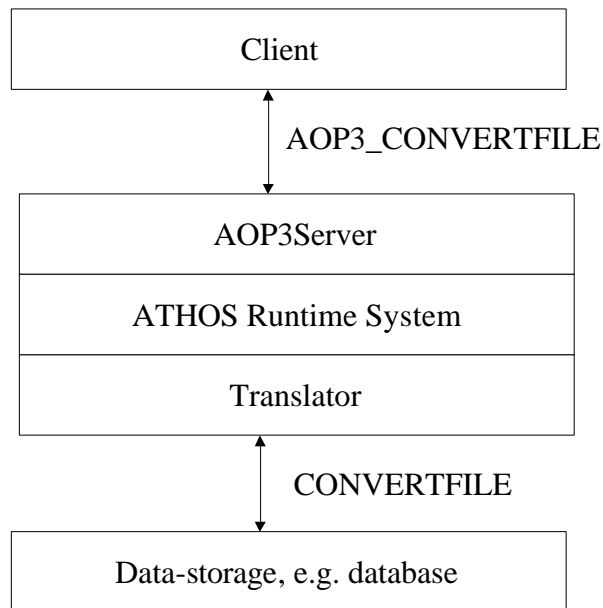


Figure 4.1: The usage of the convertfiles

## 4.10 The Aop3Server and Multithreaded

The AOP3Server is able to run in multithreaded mode on MS-Windows systems. When the AOP3Server runs in multithreaded mode, the AOP3server is able to handle concurrent request of the client and the requests of the clients will be handle in parallel. Herewith a short and fast request of one client which is started after the long request of another client can be handle during the long request is done. So the short request overtakes the long request. It's not guarantee that the short request will always overtake the long request because of synchronisation in the Athos Runtime System.

With the INI-Variable **MULTITHREADED** will the server switch into multithreaded mode.

In **Aop3Server Configuration variables**(p. 48) is the explanation of all AOP3Server configuration variables given.

## Chapter 5

# Initialization File Format

The Syntax of the INI-File is for all components of the Athos Toolkit identical. The configuration variables are given for each component and should be combined in one section.

### 5.1 Initialization File Format Athos Runtime System

An example of an INI-File is given below, this example will only show the syntax of the INI-File, the services given in this example are not complete and they might not work with the configuration given in this example.

```
[ATHOS]      ; Global Athos Runtime System definitions.
ATHOS_ROOT = "/users/xenon1/conv/athos"      ; Fallback if not in environment.
BASE_MODEL_URL = "///$(ATHOS_ROOT)/etc/ao_base.htm"

; Debug Level.
;   0          No debug output at all.
;   1          Entry calls and error messages.
;   2          As level 1 plus "in" and "out" parameters.
;   3          As level 2 plus all further information.
DEBUGLEVEL = 3

; Definition of a service.
[SERVICE "Test"]
DESCRIPTION = "ODBC access to a standard ASAM ODS relational database."
TYPE = "ASAM-ODS"
DRIVER = aodi
DIRECTORY = "///$(ATHOS_ROOT)/bin/$(OSTYPE)/"
ENVNAME = Test
DSN_NAME = LocalServer
DATABASE = ASAM
DB_USERNAME = sa
DB_PASSWORD =
WILDONE = _
WILDALL = %
DEPENDS_ON = DEP_LIST

; List with dependencies.
[LIST "DEP_LIST"]
portmap
MSSQLServer
SQLExecutive

; Definition of another service.
[SERVICE "Tire Testbed"]
```

```
DESCRIPTION = "Tire Testbed accessed via ASAM ODS 3"
DRIVER = avl3
DIRECTORY = "///$(ATHOS_ROOT)/bin/$(OSTYPE)/"
RPCNUMBER = 553652252
NODENAME = Jeannie
ENVNAME = TireTest
RPCTIMEOUT = 60
```

### 5.1.1 Athos Initialization File Syntax

The Athos Runtime System uses an INI-File for initialization. The INI-File may be different for each Athos-based client application. The client application and the Athos translators (drivers) both use the values of the INI-File. The INI-File has the following syntax conventions:

- Semicolon is the comment sign. The comment ends at the end of the line.
- Strings may optionally be enclosed in double quotes. If the double quotes are omitted, leading and trailing whitespaces are removed.
- German Umlauts (mutated vowels) and non-printable characters follow the ASAM Transport Format (ATF) conventions for maximum portability in heterogeneous environments.
- Only one entry per line is allowed.
- Variables may be constructed by using variables that are already defined. Substitutions are indicated by (similar to Unix make). Beware of recursive definitions. No respective checks are done in the actual code. Recursive substitutions will result in an infinite memory allocation loop.
- The first part of definitions marked by the keyword [ATHOS] are global and may be used by each service.
- Each service has its own section. A new service is defined by [SERVICE <servicename>].
- The name of the service must be unique within a configuration file.
- There are sections for lists. A section for list definitions is defined by [LIST <listname>].
- The entries in a list are only names, and not name value pairs such as a variable of a service sections.
- The value of a parameter can be a readonly value. You can define the readonly parameter by adding the string "readonly" to the parameter. E.g. DRIVER = "aod1 readonly". The value must be delimited by double quotes (").
- The value of a parameter can have another datatype as the default datatype DT\_STRING. You can define the datatype of the parameter at the end of the value before the readonly attribute. E.g. SECURITY = "2 DT\_LONG" or the read only variant SECURITY = "2 DT\_LONG READONLY"
- The name of the variable is not case sensitive.

## 5.2 Initialization File Example Aop3Server

```
[ATHOS] ; Global Athos Runtime System definitions.
ATHOS_ROOT = "/users/xenon1/conv/athos" ; Fallback if not in environment.
BASE_MODEL_URL = "///$(ATHOS_ROOT)/etc/ao_base.htm"
AOP_SERVICE = "Tire TestBed" ; Foreward reference to SERVICE defined below.

; Debug Level.
; 0 No debug output at all.
; 1 Entry calls and error messages.
; 2 As level 1 plus "in" and "out" parameters.
; 3 As level 2 plus all further information.
DEBUGLEVEL = 3

; Definition of a service.
[SERVICE "Tire Testbed"]
DESCRIPTION = "ODBC access to a standard ASAM-ODS relational database."
TYPE = "ASAM-ODS"
DRIVER = aod1
DIRECTORY = "///$(ATHOS_ROOT)/bin/$(OSTYPE)/"
ENVNAME = TireTest
DSN_NAME = LocalServer
DATABASE = ASAM
DB_USERNAME = sa
DB_PASSWORD =
WILDONE = _
WILDALL = %

; Definition of another service.
[SERVICE "Test"]
DESCRIPTION = "Tire Testbed accessed via ASAM ODS 3"
DRIVER = avl3
DIRECTORY = "///$(ATHOS_ROOT)/bin/$(OSTYPE)/"
RPCNUMBER = 553652252
NODENAME = Jeannie
ENVNAME = Test
RPCTIMEOUT = 60
```





# Chapter 6

## Usage

The usage of the component of the Athos Toolkit depends on the component. The usage of one component will have influence on the usage of the other components.

### 6.1 Usage Athos Runtime System

The Athos Runtime System is used always with the respective Athos Toolkit Component. No additional user interaction is required. Direct usage of the Athos Runtime System applies only to programmers who write their own translators (drivers). A separate Programmers Guide and appropriate training sessions are available for this special and sophisticated task.

### 6.2 Datatype of Id's in Athos Runtime System.

ASAM ODS has defined that the Id's of the application and instance elements are of the type `T_LONGLONG`, a 64 Bit integer. Until the version 3.3 in Athos all Id's were of the type `T_LONG`, a 32 Bit integer, there was a defined type `AO_Id` which was used for the Id.

Since the version 3.3 Athos have changed the type of the `AO_Id` to an `__int64` on Windows an 64 Bit integer. The printf functions and also the decaration of the Id could be `long` or `Int4` which will not metsch anymore.

Therefor the following definitions are made in Athos since the version 3.3.

#### **AO\_ApplElem, application element**

The Id of the application element stays a 32 Bit Id of the type `Int4`. The prototype of the functions `AE_GetId` and `AE_SetId` are changed from `AO_Id` to `Int4`. We do not expect Id's of the application elements outside the 32 bit range.

#### **AO\_BaseElem, base element**

The Id of the base element stays a 32 Bit Id of the type `AO_BE_Id`. Nothing is changed.

#### **AO\_ApplAttr, application attribute**

The application attribute have only the Id of the unit, this Id is the Id of an instances element and is changed to an 64 Bit integer. The prototype of the functions still use the `AO_Id`. Although we use now the 64 Bit we don't expect that the range will be outside the 32 bit range.

**AccessControlList**

The Id's of the application elements are changed to `Int4`, the Id's of the instances element stays `AO_Id`. See also the structures `ACLEntry`, `InitialRightEntry`, `KeyEntry` will use the usergroup Id as an `AO_Id`. Although we use now the 64 Bit, we don't expect that the range will be outside the 32 bit range.

**AO\_InstAttr, instance attribute**

The instance attribute have only the Id of the unit, this Id is the Id of an instances element and is changed to an 64 Bit integer. The prototype of the functions still use the `AO_Id`. Although we use now the 64 Bit we don't expect that the range will be outside the 32 bit range.

**AO\_InstElem, instance element**

The Id of the instances element is of type `AO_Id`, this is a 64 Bit integer. The functions take care for the datatype of the Id baseattribute and the reference attributes. There are new functions added for handling the Id. The functions `IE_GetIdLow` and `IE_SetIdLow` handle only with the low part of the Id, these are equivalent with the functions `IE_GetId` and `IE_SetId` incase the type of `AO_Id` was 32 bit integer. The function `IE_GetIdString` returns the Id as a string.

**AO\_SubMat, submatrix**

The type of Id and unique Id is an `AO_Id`, this is a 64 Bit integer. The functions `SM_GetIdLow`, `SM_GetUniqueIdLow`, `SM_SetIdLow` and `SM_SetUniqueIdLow` handle only with the low part of the Id, these are equivalent with the functions `SM_GetId`, `SM_GetUniqueId`, `SM_SetId` and `SM_SetUniqueId` incase the type of `AO_Id` was 32 bit integer.

**AO\_LocalColumn, localcolumn**

The type of Id and unique Id is an `AO_Id`, this is a 64 Bit integer. The functions `LC_GetIdLow` and `LC_SetIdLow` handle only with the low part of the Id, these are equivalent with the functions `LC_GetId` and `LC_SetId` incase the type of `AO_Id` was 32 bit integer.

There are new helper functions to convert between the ASAM ODS type , the Athos type `AO_Id` and `Int4`

- `LongLongToAO_Id`, converts from `T_LONGLONG` to `AO_Id`.
- `AO_IdToLongLong`, converts from `AO_Id` to `T_LONGLONG`.
- `AO_IdToInt4`, converts from `AO_Id` to `Int4`, low part.
- `Int4ToAO_Id`, converts from `Int4` to `AO_Id`, low part.
- `AO_IdToString`, converts from `AO_Id` to `String`.
- `LongLongToString`, converts from `T_LONGLONG` to `String`.
- `StringToAO_Id`, converts from `String` to `AO_Id`.
- `StringToLongLong`, converts from `String` to `T_LONGLONG`.

## 6.3 Usage Aop3Server

Start a console window and enter the following command:

```
aop3server <rpc-number>
```

Use any ASAM-ODS Version 3 compliant client to communicate with this server.



### 6.3.1 Usage of Concerto with AOP3Server

The following settings should be used in Concerto, to connect to the AOP3Server.

**SantorinServer = 0**

Concerto don't ask for an attribute with the name 'count(\*)'.

**DataModel = UNKNOWN**

Concerto don't ask automatic for the instances where the iInvalidFlag == 0. This flag is an attribute in the PUMA-application model but not all application models supply this attribute, which will cause an error.



## Chapter 7

# Error reporting and Logging

The error reporting in the Athos Toolkit is a fixed program. With configuration variables you can set the level of logging in the Athos Toolkit. The higher the level the more will be logged to the logging device, this logging device is normally standard output.

### 7.1 Error reporting Athos Runtime System

The error reporting on Win32 and Unix systems are different. On Win32 systems the event viewer of the system will be used, this event viewer is not available on the other operating systems, they use a file for the error reporting

#### 7.1.1 Error reporting on Win32 system

The Athos Toolkit implements its own event log system. The Athos event viewer uses the Windows NT event viewer **How to use the event log**(p. 36) on Win32 systems by default. On all other operating systems the Athos event logger writes the messages into a file. See also **ERR\_DEVICE** in the configuration variable description of **Athos Runtime System Configuration variables**(p. 39).

Messages are written in the Application Protocol of the Windows NT event viewer and can be browsed with the default Windows NT event viewer. For Windows systems without an event viewer (Windows 95/98) refer to the entry **ERR\_DEVICE** in the configuration variable description **ERR\_DEVICE**.

On all other operating systems the messages are written to the file **asam\_err.log**. At startup the file **asam\_err.log** will be opened. If the file exists it is copied to **asam\_err.bak**, the existing file **asam\_err.bak** will be deleted. If a server and client are running on the same system, the last started program deletes the error output file of the earlier started programs. Use the environment variable **ERR\_PATH** to set the path of the error output device. For more details refer to the entry **ERR\_PATH** in the configuration variable description **Athos Runtime System Configuration variables**(p. 39).

The first message of the Athos Toolkit is the message with the ID 1000. (**AO\_CONNECT\_-EVENTLOG**) which will be written as soon as the event viewer is activated. The last message is the message with the ID 1001 (**AO\_CLOSE\_EVENTLOG**), which will be automatically written before the event viewer is closed.

If the maximum number of identical error messages is detected, the error messages are suppressed and not reported. The start and end of suppression are reported with the messages with ID 1002

(AO\_SUPPRESS\_REPORT) and ID 1003 (AO\_REPORT\_ALL\_EVENT). The total number of and the last identical messages are reported at the end.

The usages of the event viewer is explained in **How to use the event log**(p. 36).

The DEBUGLEVEL defines which kinds of events are reported to event viewer, this protects the event log-file from getting filled to fast, so the events of other applications are not found anymore. The events which are ERROR will always be reported. The events which are WARNING will be reported when the DEBUGLEVEL is above the definition DBG\_ERROR\_WARING\_LEVEL. The events which are INFORMATIONAL will be reported when the DEBUGLEVEL is above the definition DBG\_ERROR\_INFO\_LEVEL. The events are always reported in the log-file.

You can configure the Athos Runtime System to write the events also in the Athos-logging device, see logging\_kerenl. The configuration variable LOG\_EVENTS sets which type of events will be reported in the logging system. This has the advantage that the direct relation between the events and the logging messages will be available in the log device. The INI-File variable LOG\_EVENTS is a service variable so the last open service defines if the event is logged in the Athos-logging system.

On Win32 system using the Eventviewer has the advantage, in case the eventviewer is configured correctly **Configuration of the Windows event viewer**(p. 18), the messages are explained with clear text and the system configuration guarantee the size of the eventlog don't exceed. However writing to the windows system event log is slower as writing to the file asam\_err.log. Also when different athos applications runs at the same time it is hard to find out, in the event viewer, which messages belongs to which application. In such a case use the configuration variables ERR\_DEVICE and ERR\_PATH to configure for each application an own file asam\_err.log in a separte directory.

### 7.1.2 Error reporting on none Win32 system

On none Win32 systems or when the Environment variable ERR\_DEVICE=FILE is set, the file asam\_err.log will be created. All lines in this file with the error messages have the same format. The field of the line are comma-separated.

The fields are:

- The severity, **I** means information, **W** means warning and **E** means error.
- Date and time.
- The name of the program.
- The error number.
- The name of the computer.
- The name of the user.
- The version of the program.
- The identification of the source location where the event is reported. The source file, the revision of the source file and the line in the source file.
- The parameter of the event. This parameter fits at the %4 place of the error message (**Athos Error Messages**(p. 74)).

The following line is an example, split just before the parameter.

```
I,"2003-07-21 16:44:26","OdsApi",00905,"ODIN","karst","V3.0", "ac_loadinitfile.c $Revision: 1.15 $ 265",
"Inifile "D:\athos.ini"."
```



### 7.1.3 Control the size of the files.

The files, log-file or error-file can grow fast. Depending of the usage of the software, running as server or client development the size of the files must be controlled. Next to the `DEBUGLEVEL` the 2 other main core variables used to control the behavior of the error-logging-process are `LOG_MAX_LINES` and `ERR_LMAX_LINES`. `LOG_MAX_LINES` controls the size of the logfile. Setting this value to 0 forces new log entries to append at the end of the logfile.

**BEWARE:** If not handled properly, this can lead to a very large logfile. If set to a value  $> 0$ , the logfile will be closed when reaching the defined amount of lines and a new logfile will be created.

`ERR_MAX_LINES` behaves similar to the `LOG_MAX_LINES`. When set to 0, the errorfile will grow until deleted or moved. Otherwise the errorfile will be closed at the specified amount of lines and a successor file will be created.

### 7.1.4 Logging

Normally the Athos Runtime System does not report any messages except the error, warning and information messages into the eventlog (**Error reporting on Win32 system**(p.33)). However you can force the Athos Runtime System to report messages to the standard output or for some applications redirect the standard output into a file. The number and kind of messages of the Athos Runtime System depends on the configuration variable `DEBUGLEVEL`.

If there is no file opened by the application the 'standard output' will be used.

The values of the `DEBUGLEVEL` is documented in the online documentation "ODS definition" - "Modules" - "The debuglevel definitions" and in the appendix of this document.

An example of the log file content is given below

```
20080507 17:09:56 diff: 15 Thread 9b0 ApplicationElement_GetName()
20080507 17:09:56 diff: 0 Thread 9b0 Application Element: CommitTest (1AAEC950)
20080507 17:09:56 diff: 0 Thread 9b0 Return ApplicationElement_GetName(): CommitTest
20080507 17:09:56 diff: 16 Thread ac0 ApplicationElement_GetRelatedElementsByRelationship()
20080507 17:09:56 diff: 0 Thread ac0 Application Element: CommitTest (1AAEC950)
20080507 17:09:56 diff: 0 Thread ac0 relShip: 0
20080507 17:09:56 diff: 0 Thread ac0 Return ApplicationElement_GetRelatedElementsByRelationship():
20080507 17:09:56 diff: 0 Thread ac0 Number of objects in list: 0
```

- The date E.g. 20080507.
- The time E.g 17:09:56.
- The number following the term 'diff' is the time difference to the previous line in milliseconds. In this example it took 16 milliseconds after the return of the method `ApplicationElement_GetName` until the new request `ApplicationElement_GetRelatedElementsByRelationship` was recieved at the server.
- The number following the term "Thread" is the thread Id in the server, to synchronize the messages of each thread or request.
- The message is given E.g. '`ApplicationElement_GetName()`' or '`Return ApplicationElement_GetName(): CommitTest`' which logs the start and return of the method `ApplicationElement_GetName()`. The lines following the start of a method are normally the parameters of the method, in this example '`Application Element: CommitTest (1AAEC950)`' which shows it is an application element with the name "CommitTest" and an internal memory adres of 1AAEC950. The Oracle SQL Commands and the file access is also logged as messages.

## 7.2 How to use the event log

The Athos event logger uses the Windows NT event logger on Win32 systems by default. The Windows event viewer can be found in the 'Manage'-tab of the 'My Computer'-icon (context-menu). The Windows event viewer with a detailed message display is shown below:

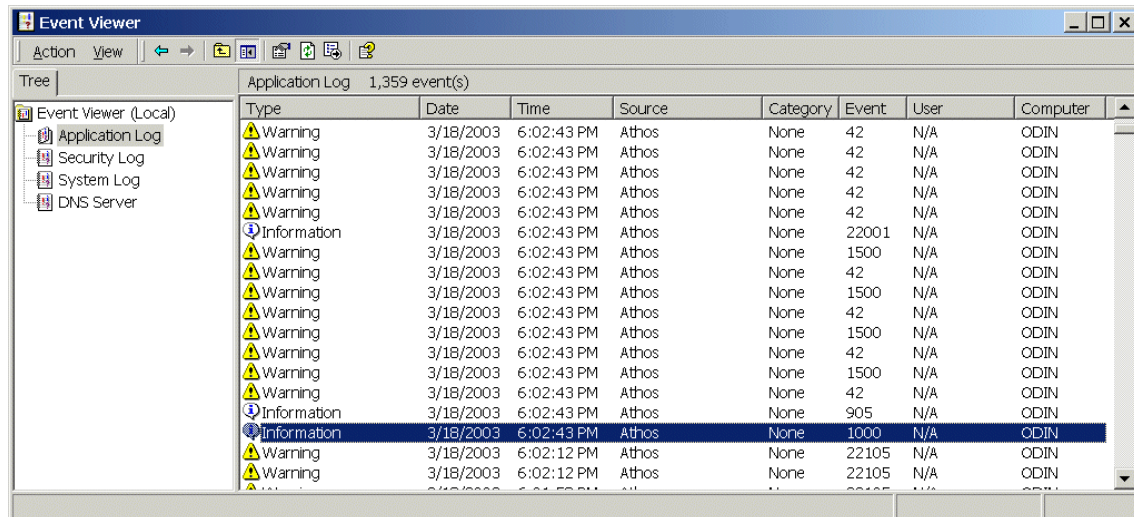


Figure 7.1: Windows Event viewer

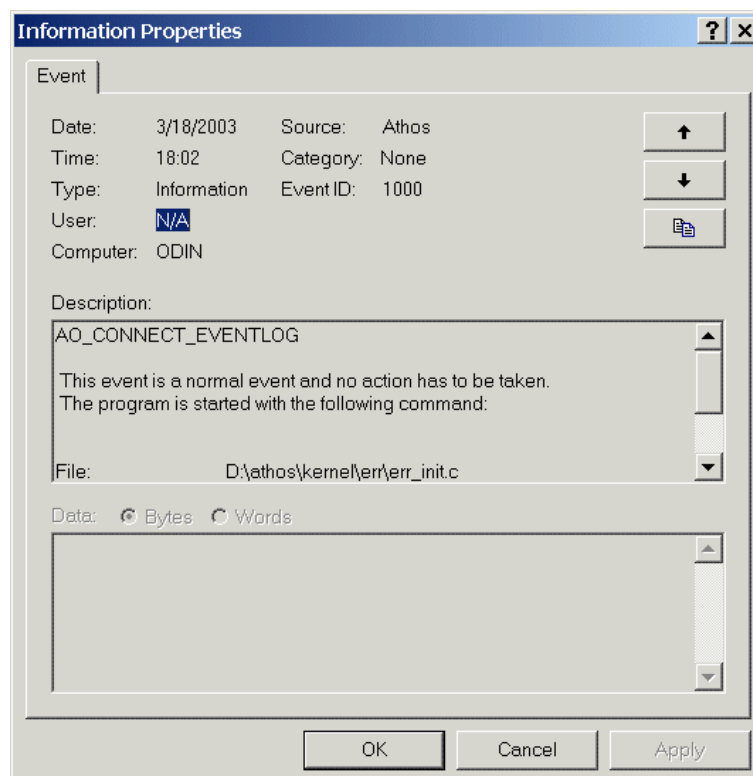


Figure 7.2: Detail of eventviewer



To analyze the Athos behavior it is very important for HighQSoft to receive the event log with the interesting logs. If an error can be reproduced, please clear the event log, reproduce the error, save the event log in a file (\*.evt) and send the event log to HighQSoft. The way how to clear and save the event log is shown below.

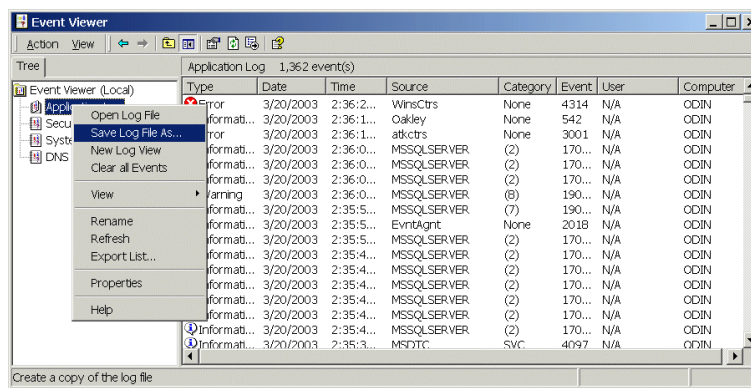


Figure 7.3: Eventviewer save

Using the event logger in the default configuration will sooner or later result in the following message:

The Application Log File is full.

This message indicates that the application log-file is full and no more messages can be stored. It has no consequences for the Athos functionality, but tracking down errors may be very complicated or even impossible without this information. Change the Log Settings of the application protocol and the newest messages will always be stored. A recommended log setting is shown below:

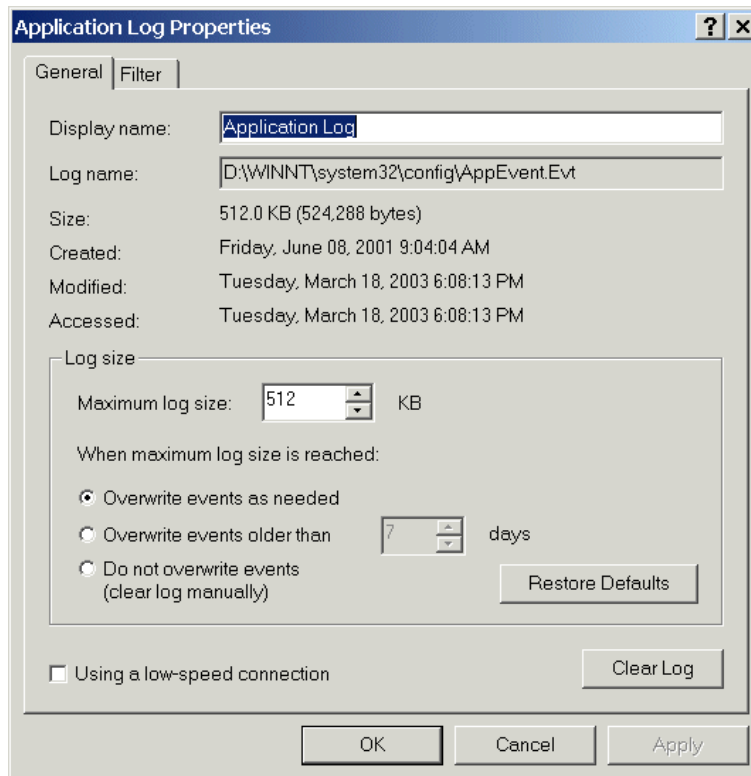


Figure 7.4: Eventviewer protocol properties

### 7.3 LogViewer

On none windows systemer there is no event log and the event viewer can not be used to look at the event. The Athos Runtime System writes the event normally in the directory \$ATHOS\_ROOT/log, if the directory not exist in the current directory.

LogViewer is a tool which help you to examine the log files. The tool is started with the following command

```
java -jar jar/LogViewer.jar
```

The tool is able to show the file `asam_err.log` and the normal log-file.

### 7.4 Error reporting and logging Aop3Server

The Aop3Server use the error reportinnng and logging mechanism of the Athos Runtime System (**Error reporting Athos Runtime System**(p. 33)). There is a special configuration variable `AOP_LOGFILE` to set the log-file. This configuration variable is set in the gloabl part of the INI-File.

If the Aop3server is running as a NT-Service, the internal name of the service will be used as the name of the log-file. This file will be located in the directory \$ATHOS\_ROOT.

See also `AOP_LOGFILE` in the configuration variable description `init_aop3server`.

# Chapter 8

## Configuration Variables

Configuration variables

### 8.1 Athos Runtime System Configuration variables

#### ATHOS\_CHARACTERSET

An environment variable which defined the character set used in ATHOS. Only 8-bit chracter sets are supported. The character set must match with the character set of the storage (Oracle chracter set). The character set must be supported by iconv. The names of the character set must match the names of the character set supported by iconv.

<b>Default:</b>	ISO-8859-1
<b>Source:</b>	INI-File

#### ATHOS\_DELETE\_THREAD\_COUNTER

The current counter value of the delete Thread. Each time the delete thread runs, the counter is increased. The delete thread cleans the object sto delete from the Athos Runtime System. This variable is a READONLY variable.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

#### ATHOS\_NUMBER\_OF\_OBJECTS\_TO\_DELETE

The number of objects currenty waiting to be deleted from the memory of the ATHOS Runtime System. This number is only an indication wether the ATHOS Runtime System is able to cleanup the internal memory. The number of objects are the objects used in the ATHOS Runtime System but not the number of objects to delete from the storage. This variable is a READONLY variable.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

#### ATHOS\_ROOT

The root directory of the Athos System. If ATHOS\_ROOT is not an environment variable, the entry in the INI-File is used. The name of the INI-File can be passed to the Athos Runtime System at the time of creation. The ATHOS\_ROOT definition in the INI-File is used as a fallback in case the environment variable is not defined.

<b>Default:</b>	No default
<b>Source:</b>	Environment or INI-File, global

**ATHOS\_VERSION**

The version of the ATHOS Runtime system. This variable is a READONLY variable.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

**BASE\_MODEL\_URL**

The URL where the ASAM ODS base model definition of the Athos Runtime System is located. The flexible design pattern of Athos allows that the internal object engine parameters are provided by a configuration file. The base model has been designed as an HTML-File. This allows easy navigation through the defined objects via any HTML browser. The object engine disregards the HTML tags. This file is intended to be modified by the developers only. Modifications in this file should be done only with great care and detailed knowledge about the Athos object engine.

<b>Default:</b>	file:///\$(ATHOS_ROOT)/etc/ao_-base50.htm
<b>Source:</b>	INI-File, global

**BIN\_EXT**

Extension of the binary (component) files.

This variable is checked every put of an instance element of type AoMeasurement, so this variable can be changed during runtime.

<b>Default:</b>	BTF
<b>Source:</b>	INI-File

**BIN\_PATH**

Path of the binary (component) files.

The directories for the binary files must be created externally. This driver does not create this directory. If the directory not exist the driver is not able to connect to the storage and no user will get access to the server. The system user which runs the server need read, write and execute rights for this directory.

This variable is checked every put of an instance element of type AoMeasurement, so this variable can be changed during runtime.

The default is the current directory. **This variable is only used when the FILE\_MODE is ABSOLUTE** use the For compatabillity when BIN\_PATH is found the FILE\_MODE will be set to ABSOLUTE and the FILE\_NOTATION is set to URL, when these variables are not set. When this variable is not given the FILE\_ROOT is used for the absolute files.

<b>Default:</b>	
<b>Source:</b>	INI-File

**BIN\_SUBDIR**

Subdirectory of the path of the binary files.

This string can be a 'pattern', the pattern will be used as date specification. The following date specification is supported, 'YYYY' = Year, 2 or 4 characters required. 'MM' = Month, 2 characters are required. 'DD' = Day, 2 characters are required. 'HH' = Hour, 2 characters are required. 'WW' = Week of the year, 2 characters are required. You can put any other character in this string except the directoty separator-character or other not allowed director name character defined by your system. Eg. AYYYYBWW (A2004B05) will use a differnt subdirectory for each week of the year. When the directory doesn't exist, the directory will be created. The created directory will have all rights on UNIX systems, umask can be used to reduce the rights of the directory, the system user which runs the server need read, write and execute rights for the directory.

This variable is checked every put of an instance element of type AoMeasurement, so this variable can be changed during runtime.

The default is no subdirectory write to the directory given at BIN\_PATH. This works only when the BIN\_PATH or FILE\_ROOT is given.

<b>Default:</b>	
<b>Source:</b>	INI-File

### CHECK\_ID\_ALWAYS

This variable tells the Athos Runtime System always to check the ID of the instance elements, because the ID of the datastorage is not unique. The check will reduce the performance. If this variable is set to YES the check will be performed for every new added instance element.

<b>Default:</b>	No
<b>Source:</b>	INI-File

### CHECKDATEFORMAT

Activate the check of the date format of the input parameter. When the check is activated the server checks the date format during the input otherwise the date format is checked at the commit transaction by the database engine.

<b>Default:</b>	NO
<b>Source:</b>	INI-File

### DATABASE

Name of the database in the MSQL server. Do not set this variable for Oracle based systems, it will cause to an error.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

### DB\_PASSWORD

User password for database logon.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

### DB\_SERVER

Name of the computer/server on which the database runs. This keyword is optional and only used in connection with the keyword ODBC\_DRIVER.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

### DB\_USERNAME

User name for database logon.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

### DEBUGLEVEL

The trace level of the server. The higher the level the more details are printed out - lowering the performance of the server.

0 = No output at all.

1 = Entry calls and error messages.

2 = Like 1 plus "in" and "out" parameter.

3 = Like 2 plus other available information.

4 = Like 3 plus all other available information. This level gives also search and compare information.

5 = Like 4 plus the error messages also in the log output device.

On Windows NT: The server or operating system will allocate memory for the file buffers. When the value is high a lot of messages will be produced and the requested memory will grow.

More details about the different levels is given in a separate section.

<b>Default:</b>	0
<b>Source:</b>	INI-File, global

## DIRECTORY

The directory where the executable of the driver is located. For system and installation independent directory definitions use c: and win32 in the directory name string.

<b>Default:</b>	file:///\$(ATHOS_ROOT)/bin/win32
<b>Source:</b>	INI-File

## DRIVER

The name of the Athos driver (translator) to be loaded for this service. The name of the executable will be built from the driver name and the executable extensions which depend on the operating system. After the driver has been loaded, a symbol with the same name is used to determine the driver entry points.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

## DRIVER\_FACTOR

The maximum factor of volatile memory the driver needs to load a localcolumn. This factor is used by the Athos Runtime System to estimate the amount of memory a driver needs to load a localcolumn.

<b>Default:</b>	1
<b>Source:</b>	INI-File

## DSN\_NAME

Name of the ODBC-Server or the name given at the ODBC-Manager as user- or system-DNS. Previous version this keyword was called <SERVER>, this keyword is still accepted.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

## ERR\_DEVICE

On the Windows NT operating systems the system environment variable ERR\_DEVICE is used to redirect the Athos messages to the log file. If this variable is set to the string "FILE" the Athos messages are written to the file asam\_err.log.

The default is that the messages are written to the event viewer.

<b>Default:</b>	
<b>Source:</b>	Environment

## ERR\_MAX\_LINES

The maximum number of lines of the error messages output file. If this value is 0 there is no maximum and all messages will be appended to the same file. This file can grow to a huge file. If the maximum number of lines is reached, the asam\_err.log file will be copied to the asam\_err.bak file and the file will be reopened. There will be always twice the number of error messages available.

<b>Default:</b>	100000
<b>Source:</b>	INI-File, global

**ERR\_PATH**

The directory path of the file `asam_err.log`. This variable is only used when the error messages are written to a file. If the Athos Runtime System is not able to write to the given directory, the file `asam_err.log` will be written in the current working directory. This variable is an environment variable.

<b>Default:</b>	<code>\$(ATHOS_ROOT)\log</code>
<b>Source:</b>	Environment

**FILE\_MODE**

The mode how the files are stored. Possible strings are `ABSOLUTE` or `SINGLE_VOLUME` or `MULTI_VOLUME`.

`ABSOLUTE` each file location is stored with an absolute path.

`SINGLE_VOLUME` the absolute path has to be created by concatenating the file prefix with the stored file location information. The file prefix information is not stored in the database. For BaseAttributes of `AoExternalComponent` the file prefix information is stored with the context variables `FILE_ROOT`. For BaseAttributes `externals_references.location` the file prefix information is stored with the context variable `FILE_ROOT_EXTREF`.

`MULTI_VOLUME` the absolute path has to be created by substituting the symbol name with its value. The symbol name is stored within the file location in the database, and is enclosed within `$(symbol name)`. Example: (in case of `UNC_WIN`) `filename_url=data.xls`  
`MyVolume_1=c:`  
 This variable is defined by ASAM ODS. **Don't modify this variable during life time of the storage**

<b>Default:</b>	<code>ABSOLUTE</code>
<b>Source:</b>	INI-File

**FILE\_NOTATION**

defines in which notation the file locations are stored, shortly it's an issue of `/` vs. `\`. Possible strings are `UNC_WIN` or `UNC_UNIX` or `URL`.

`UNC_WIN` (Universal Naming Convention): uses Windows UNC format with windows specific `"\"` backslash delimiters; `\hostname`

`UNC_UNIX` uses Unix UNC format with unix specific `"/"` slash delimiters; `//hostname/path`  
`URL` (Uniform Resource Locator) protocol: `//hostname/path` Currently only 'file' is supported as protocol

This variable is defined by ASAM ODS. Use the file notation according to the operating system.

<b>Default:</b>	<code>URL</code>
<b>Source:</b>	INI-File

**FILE\_ROOT**

define the root path for external component file Urls (`filename_url`, `flags_filename_url`). This is the root path for writing (no matter whether single or multi volume mode) any file of external components and also the root path for reading them in single volume mode.

This variable is defined by ASAM ODS.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

**FILE\_ROOT\_EXTREF**

define the root path for external references location attribute e.g. `"d:\data\externalreferences"`. This is the root path for writing (no matter whether single or multi volume mode) any file of external references and also the root path for reading them in single volume mode.

This variable is defined by ASAM ODS.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

**FILE\_SYMBOLS**

returns a list of comma-separated symbol names. In case of SINGLE\_VOLUME, there are two symbols predefined : FILE\_ROOT, FILE\_ROOT\_EXTREF The symbol names must be maintained by the user in the INI-File, each time the FILE\_ROOT is modified add the new symbol used in the FILE\_ROOT to this list.

This variable is defined by ASAM ODS.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

**FILTER\_VARIABLES**

The name of the attribute or variable or list of variable which should be filtered out. The variables given overhere are not reported to the client with the context variables functions.

<b>Default:</b>	DB_PASSWORD
<b>Source:</b>	INI-File

**FREE\_NUMBER\_LC**

The number of localcolumn which will be unloaded if the number of localcolumn exceeds the maximum number of localcolumns, see also MAX\_NUMBER\_LC. This variable is an Athos global variable.

The default is MAX\_LC\_NUMBER/2.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

**GUESS\_FOR\_INV\_REF**

Guess for the inverse reference. If this variable is set to 'YES' ATHOS will guess which reference is the inverse reference of a reference. When an inverse reference names is given or the base reference is given, these information is used to find the inverse reference. When both informations are not available, ATHOS searches at the target application element for a reference to the own application element the first reference without a base reference and no no inverse reference name will be used.

<b>Default:</b>	NO
<b>Source:</b>	INI-File

**INI\_FILE\_VARIABLES**

For the INI-file variables of this driver, see the driver 'mmd3'.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

**KNOWN\_RELATIONS\_FILE**

Filename with the known relations and corresponding inverse relations. ATHOS tries to find the inverse relation, normally the inverse relation is given in the application model, the are some storage (ATF/CLA) or RPC-API whic don't support this information. In this file the information can be added to the application model. Each line in the file is one relation. There are two element / attribute name pairs in each line. The first element / attribute name pair is the reference, the second element / attribute name pair is the inverse reference. The element and attribute names are combind with a dot (.). The element name can also be a basetype. E.g

AoUnit.reference AoQuantity.invReference

<b>Default:</b>	No default
<b>Source:</b>	INI-File

**LOAD\_NEXT\_ID**

Load the next ID for a new instance element. If the ID cannot be supported by the translator, such as avl3 or atf13, Athos tries to load all the instances and determine the maximum current



ID and the next ID will add one. If the client does not need the ID of the instance element until the commit of the transaction. It is not required to load the next ID, which can save the loading time of all instances.

<b>Default:</b>	YES
<b>Source:</b>	INI-File

### LOAD\_SUBMATRIX

Set this configuration variable to "Yes" if the driver is not able to load one single localcolumn alone. The Athos Runtime System is informed by this variable that the driver always loads an entire submatrix if one localcolumn is requested.

<b>Default:</b>	No
<b>Source:</b>	INI-File

### LOG\_EVENTS

Log the events which can be errors, warnings or information messages also to the Athos logging system. If one service sets the level, the level will be globally set until a next service modifies the level again. The level will be only modified if this variable is available in the service.

0 - No messages in log system.

1 - Error messages in log system.

2 - Error and Warnings messages in log system.

3 - All messages in log system.

The default is leave the actual level, the default level = 0.

<b>Default:</b>	
<b>Source:</b>	INI-File

### LOG\_MAX\_LINES

The maximum number of lines of the messages output file. If this value is 0 there is no maximum and all messages will be appended to the same file. This file can grow to a huge file. If the maximum number of lines is reached, a new file with the same name will be created.

<b>Default:</b>	32000
<b>Source:</b>	INI-File, global

### LOGFILE

Name of log file. In this log file the message for special logging, independent of the debuglevel will be stored. This file is only used for tracking special effects by messages in the code. If no file is given the messages will not printed out, this is the default.

Normally the developers send a special version of the code, otherwise this variable should not be used.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

### MAX\_LC\_MEMORY

The maximum memory available for the values and flags of the localcolumn values in Megabytes. If no value is set, the check if the available memory is turned off, it is left to the system resources how much memory is available. Was MAX\_LOCALCOLUMN\_MEMORY in Athos 1.40.

<b>Default:</b>	0
<b>Source:</b>	INI-File, global

### MAX\_NUMBER\_LC

The maximum number of localcolumns in the localcolumn cache. If no value is set there is no check for the maximum number of localcolumns. If the number of localcolumns exceed the maximum number, only a certain number of localcolumns will be unloaded and not that amount

of column that the number of column is below the maximum, see also FREE\_NUMBER\_LC. Be careful that the maximum number is higher than the number of localcolumns of a measurement, otherwise the cache of the localcolumn will have no advantage. This variable is an Athos global variable.

<b>Default:</b>	0
<b>Source:</b>	INI-File

### MAXBLOBLLEN

Maximum size of a blob element in byte. See also the driver specific explanation.

<b>Default:</b>	254
<b>Source:</b>	INI-File

### MAXBYTESTRLN

Maximum size of a bytestream element in byte. See also the driver specific explanation.

<b>Default:</b>	254
<b>Source:</b>	INI-File

### MAXDATELEN

Maximum size of the date string element in byte. See also the driver specific explanation.

<b>Default:</b>	24
<b>Source:</b>	INI-File

### MAXSTRLN

Maximum size of a string element in byte. See also the driver specific explanation.

<b>Default:</b>	254
<b>Source:</b>	INI-File

### MULTITHREADABLE

Run the Athos Runtime System in the multithreaded mode. This flag has only influence on Win32 systems. On other operating systems the flag is not checked and the Athos Runtime System will run always in a singlethreaded mode. Use this flag only if the server runs in the singlethread mode and the translator needs the Athos Runtime System as a multithreaded object storage.

The default is 'NO' for Win32 systems, 'NO' for all other operating systems.

<b>Default:</b>	NO
<b>Source:</b>	INI-File

### NOSECURITYACTIVE

Deactivate the security. There are some drivers, such as AVL3, which always deactivate the security. The driver expects that the security will be done by the server to which it is connected as a client. If this server does not support security the driver is not able to load the needed security information from there. Was NOSECURITYACTIVE in Athos 1.40

This variable switch the security check between the translator and the Athos Runtime System, normally the security is done at the server side so there is no security check required at this level, even when the security is active at the server level this variable must be "YES".

<b>Default:</b>	YES
<b>Source:</b>	INI-File

### OSTYPE

The name of the operating system. This variable is expected to be defined in the environment. It is used to properly react to operating system dependencies at run time. This variable is necessary because it is not desirable to handle all operating system dependencies at compile

time. OSTYPE cannot be overwritten by the INI-File. Attempts to do this are ignored by the Athos Runtime System. This variable can be used for system independent INI-File writing. If the expression win32 is found in the INI-File it will be substituted by the content of this variable.

<b>Default:</b>	No default
<b>Source:</b>	Environment

## PASSWORD

ASAM ODS user password.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

## RUN\_SINGLETHREADED

Suppress the automatic change of the Athos Runtime System into the multithreaded mode. The performance of the singlethreaded mode is better then the multithreaded mode. Use this parameter only for singlethreaded applications like ASCOBA. There are some drivers that start a second thread, this thread never use the Athos Runitme System but let the system change into multithreaded mode. When this variable is available the system stays in the single threaded mode. The avl3 driver on Windows 2000 starts in Windows Socket software a second thread and there are also some Oracle ODBC drivers that start a second thread. The default is not set, starts the Athos Runtime System automatic in multithreaded mode.

<b>Default:</b>	
<b>Source:</b>	INI-File

## SEARCH\_FOR\_BASE\_REF

Search for the base relations if no base relation is given. If this variable has the value 'NO' there is no automatic search for base relations. The relations between two elements, without a base relation which have in the base model a relation becomes that base reation. Set this variable to 'NO' when all the relations of the model are correctly assigned to a base relation. The model in the early days of ASAM ODS did not have the relations assigned to a base relation so athos can search for these base relations and upgrade the relations.

<b>Default:</b>	YES
<b>Source:</b>	INI-File

## USE\_UNIQUE\_REFNAME

Create an unique attribute name for N:M references. The refname of an N:M reference is not always unique at an application element. The physical storage don't force this uniqueness. When this variable is set to name of the target application element and the refname are combined with '@' to create an unique attribute name. If the model guarantees that the refnames are unique at the application element only the refname can be used.

<b>Default:</b>	YES
<b>Source:</b>	INI-File

## USER

ASAM ODS user.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

## write\_mode

The ASAM ODS defined variable, which tells the translator where to write the flags and values of the local columns. If this variables is set to 'file' the translator writes the values of the explicit channels in a file. The nane of the file is concatinated from a fixed part and

the Id of the measurement. The extension of the file is given in the variable BIN\_EXT. The directory of the file is given in the variable BIN\_PATH.

<b>Default:</b>	database
<b>Source:</b>	INI-File

## 8.2 Aop3Server Configuration variables

### AOP\_SERVICE

Name of the service to use. The aop3server uses the service with the given name for the connect to the driver. This variable is only used by the aop3server started from a shell. The display name of the Windows NT service is used in case of a Windows NT service. The first service in the INI-File will be used if the variable is not available.

<b>Default:</b>	No default
<b>Source:</b>	INI-File, global

### AOP3\_CONVERTFILE

Name of the convert file. The name of the file can be an URL. The convert file contains the mapping of constant value definitions from the Server to the ATHOS values. The sections BaseElement, BaseAttribute and Datatype are supported. The first element in a row is the value used by the Athos Runtime System, the second definition is used by the server. Example of a convert file:

```
[BASEELEMENT]
DATATYPE = Int4 : Int4
100 : 0 ; Any
101 : 1 ; Environment
102 : 2 ; Test
[BASEATTRIBUTE]
DATATYPE = STRING : STRING
Datatype : AODT ; Datatype in MEQ
[DATATYPE]
DATATYPE = Int4 : Int4
12 : 10 ; DT_Date
```

<b>Default:</b>	No default
<b>Source:</b>	INI-File, global

### AOP3\_LOGFILE

Name of the log-file for the messages of the server. The file is newly created each time the server is started. The name of the file can be an URL using environment variables. The name of Windows NT services is used always when the aop3server is started as a Windows NT service.

Caution: With a high debuglevel the file may become very large when the server runs continuously for a long time.

If this variable is set with the server method aop\_setpar\_3 a new log-file will be opened.

The default is when the variable is not available, no output in a file for server start as a program but output at the console (stdout). The name of windows NT service, not the display name if the program starts as a Windows NT service. The file is created in the directory ATHOS\_ROOT% and the name of the file is "aop3NTServiceX.log, where X is the number of the service.

<b>Default:</b>	
<b>Source:</b>	INI-File, global

**AOP3\_SLEEP\_TIME**

The time in seconds the aop3server waits after the configuration file is read. Before the server tries to initialize the RPC-connection and connect to the data source, the server will wait this time. This time can be used if the data source, such as ORACLE database engine, takes a longer time to start. The server tries only once the connection and if an error occurs the aop3server stops. The default is that the server don't wait.

<b>Default:</b>	No default
<b>Source:</b>	Environment

**AOP3SERVER\_END\_PORT**

The last port where the AOP3Server will wait for connections. The AOP3Server needs only one port to wait for connections, when some clients running on the same computer an area is required for the client ports This port is the last port of that area. Default is the AOP3SERVER\_START\_PORT + 100

This variable is an environment variable.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

**AOP3SERVER\_INI**

The environment variable which contains the name of the INI-File. There is no default for a Windows NT service because the Windows NT service has no current directory. The AOP3SERVER\_INI and the ATHOS\_ROOT environment variables have to be system environment variables if a Windows NT service is installed.

If no file is given athos tries to open the file "athos.ini" in current directory. Most time an error message will be reported and the aop3server will not start.

<b>Default:</b>	
<b>Source:</b>	Environment

**AOP3SERVER\_START\_PORT**

The port where the AOP3Server will wait for connections. The value must be a short number above 600. The default behaviour is the AOP3Server tries to find a free port and use this port. Each time the AOP3Server starts another port is used. When the port must be allowed in the firewall, each time after the AOP3Server is start the firewall configuration must be changed. With this variable the AOP3Server will use a fix port. The portnumber is given in this variable.

This variable is an environment variable.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

**DEBUGLEVEL**

The trace level of the server. The higher the level the more details are printed out - lowering the performance of the server.

0 = No output at all.

1 = Entry calls and error messages.

2 = Like 1 plus "in" and "out" parameter.

3 = Like 2 plus other available information.

4 = Like 3 plus all other available information. This level gives also search and compare information. On Windows NT: The server or operating system will allocate memory for the file buffers. When the value is high a lot of messages will be produced and the requested memory will grow.

If this variable is set with the server method aop\_setpar\_3 the debuglevel will change for all sessions.

<b>Default:</b>	0
<b>Source:</b>	INI-File, global

**DEPENDS\_ON**

The Windows NT services on which the Aop3Server as Windows NT service depends. The entry might be a name or a list. The depending Windows NT services will be started if the services are not running. The start of a service will cause at least 10 seconds sleep of the Aop3Server. The Aop3Server will wait until the services are running. If the services can not be started, the Aop3Server will continue but the proper function of the Aop3Server can not be guaranteed.

Default is that the service will be started without other services are started previous.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

**IGNORE\_SECURITY**

If this flag is set to 'YES', there will be no security check at all. Use this flag for services which are not able support the security information. The best thing is set this variable always in the INI-File as a readonly variable, even if the default will be used.

Default is 'NO', the security is active.

<b>Default:</b>	NO
<b>Source:</b>	INI-File

**INDEP\_LC\_ALWAYS**

For each request of local column values, the values of the independent channel of the submatrix are also delivered. This is used by DiaDem in the MVA-PC environment and isn't a standard ASAM-ODS feature. When this variable has the value "YES" the server will always deliver the independent columns.

Default is 'No value', deliver only requested column, like ASAM ODS standard.

<b>Default:</b>	NO
<b>Source:</b>	INI-File

**MULTITHREADED**

Run the server in multithreaded mode. This flag has only on Win32 systems influence. On other operating systems the flag is not checked and the server will always run in a single threaded mode.

Default is 'NO' for Win32 systems, 'NO' for all other operating systems.

<b>Default:</b>	NO
<b>Source:</b>	INI-File

**NO\_INSTANCE\_CACHE**

Normally Athos caches the instances of the application elements. If this variable is set to "YES", the server will remove the instances and load always the instances from the data storage. If the data storage is changed external, this flag must be set otherwise Athos does not recognize the new instances.

A notification from the driver to Athos can solve this problem better but isn't defined by ASAM-ODS yet.

This variable is a service variable because some drivers are not able to reload the instances.

<b>Default:</b>	NO
<b>Source:</b>	INI-File

**ODSVERSION**

The driver ask this parameter at the server. If the server answer the driver with a string "3.2" driver knows, it can use the new commands of the ASAM ODS Version 3.2. This variable is not used by the server but required for the client so the client can recognize the server has implemented the ASAM ODS version 3.2 The keyword ODSVERSION has higher priority to the keyword VERSION. The keyword ODSVERSION is the ASAM-ODS defined keyword and should be used.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

**OWN\_RPCNUMBER**

The RPC number of the server. The server registers to certain RPC number. This RPC number is used by the client to connect to server. This keyword is only used by the server started as a Windows NT service.

If there are more services with the same OWN\_RPCNUMBER on the same system none of the Windows NT services will run. The first Windows NT service will start, the second service will unregister the RPC-number and the Windows NT service will abort. After the RPC-number is unregistered the first Windows NT service will never get any messages from the portmapper.

<b>Default:</b>	12345678
<b>Source:</b>	INI-File

**REMEMBER\_CLIENT**

Remember the user authentication. The same client computer can use the previous sent authentication. When this keyword is set to "YES" in the INI-File the server will remember the clients authentication, the client is recognized by the IP-address.

Default is 'No value', forget previous authentication.

<b>Default:</b>	NO
<b>Source:</b>	INI-File, global

**USE\_CRYPTED\_PASSWORD**

Crypt the password with MD5 algorithm. If this variable is set to 'YES' the password will be crypt to with the MD5 algorithm, otherwise the plain ASCII password will be reported.

<b>Default:</b>	NO
<b>Source:</b>	INI-File

**VERSION**

The driver ask this parameter at the server. If the server answer the driver with an string "3.2" driver knows, it can use the new commands of the ASAM ODS Version 3.2. This variable is not used by the server but required for the client so the client can recognize the server has implemented the ASAM ODS version 3.2 See also the keyword ODSVERSION.

<b>Default:</b>	No default
<b>Source:</b>	INI-File

**WILDCARD\_ALL**

Wildcard character for zero or more character match.

<b>Default:</b>	\*
<b>Source:</b>	INI-File

**WILDCARD\_ESC**

Wildcard escape character for the next character. Use the next character not as pattern but as exact the given character. Special for database patterns, the database pattern has no escape character, to fullfill the pattern matching of database set the escape character to '[' and one of the pattern matching character will be put between "[]" so the database will find a correct syntax and will produce the correct result. When the escape character is '[' an escape sequence "[]" is expected and converted.

<b>Default:</b>	</td>
<b>Source:</b>	INI-File

**WILDCARD \_ONE**

Wildcard character for one character match.

<b>Default:</b>	?
<b>Source:</b>	INI-File



## Chapter 9

# Athos version

### 9.1 How to determine the Athos version

The compile-time versions of the current shared libraries of the Athos Toolkit are shown with the command. You can give more then one name of the shared library. This program can also be used to determine which other shared libraries or executables of third parties will be used.

```
athosversion <name or path of the shared library>
```

Example of the odsapi.dll for Win32:

```
athosversion odsapi.dll
Load shared library 'odsapi.dll'
  odsapi with version 3.0
  athos with version 3.0
  Name of file <d:\athos\bin\win32\odsapi.dll>
  The internal name is <odsapi Release>
```

The example for Win32 shows that the odsapi.dll is compiled and linked in the release mode. An alternative of the release mode is the debug mode. If there is a mixture of files with release mode and debug mode, the system will crash.

Example of the libodsapi.so for Linux:

```
athosversion libodsapi.so
Load shared library 'libodsapi.so'
  odsapi with version 3.3
  athos with version 3.3
```



## Chapter 10

# Compiling

The compiler settings are for all the modules of Athos identical. Some times an additional library or include files are required. The compiler settings differ for the different operating systems. The settings for the Win32 and Linux operating system are supported by HighQSoft, for other operating system it might be required to build up separate makefiles.

### 10.1 Compiler settings for Visual C/C++ 6.0

The development is done with the Visual C/C++ compiler of the Microsoft Visual Studio 6.0. This version of the Visual C/C++ compiler is also known as the version Visual C/C++ 6.0. There are to many different workspaces for a one-button compilation, so there is a command which compiles the total Athos source tree. The project files (\*.dsp) are part of the Athos source deliverable.

The description in this Chapter is only for Windows NT and the Visual C/C++ compiler, for other operating systems and with other compilers a separate setting is required.

#### 10.1.1 Including path setting

The include files of the Athos system are given in the directory "%ATHOS\_ROOT%\include". If you use RPC another include path "%ATHOS\_ROOT%\tools\rpcgen" must be added. This setting is found at the menu 'tools' the entry 'options'.

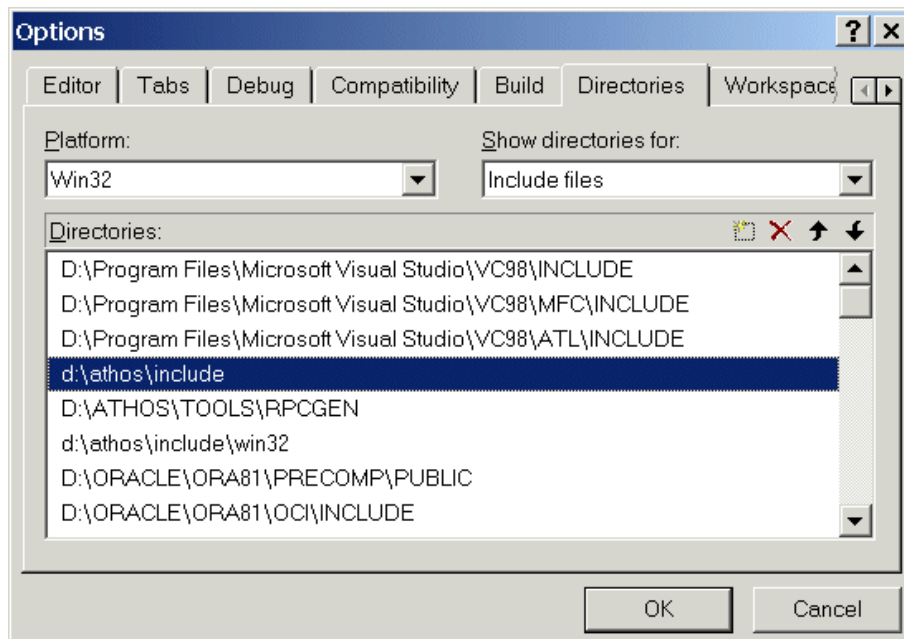


Figure 10.1: MSVC Options

### 10.1.2 Project specific compiler settings for Visual C/C++ 6.0

The following settings are project specific, open an existing project or create a new project and go to the `Settings` of the project. For all code using the Athos Runtime System the project settings are required to prevent Microsoft specific runtime errors.

### 10.1.3 C/C++ settings

The code of the Athos system must be compiled as:

```
'(DEBUG) Multithreaded DLL'
```

This setting is found in the menu 'project' the entry 'settings'. The precompiler setting "WIN32" is also required. We have only seen that the compiler option 'code generation' is changed in the new Visual C/C++ Version 6.0 project files, so check after the conversion of the projects from Visual C/C++ 5.0 to Visual C/C++ 6.0 that the "code generation" is installed correctly.

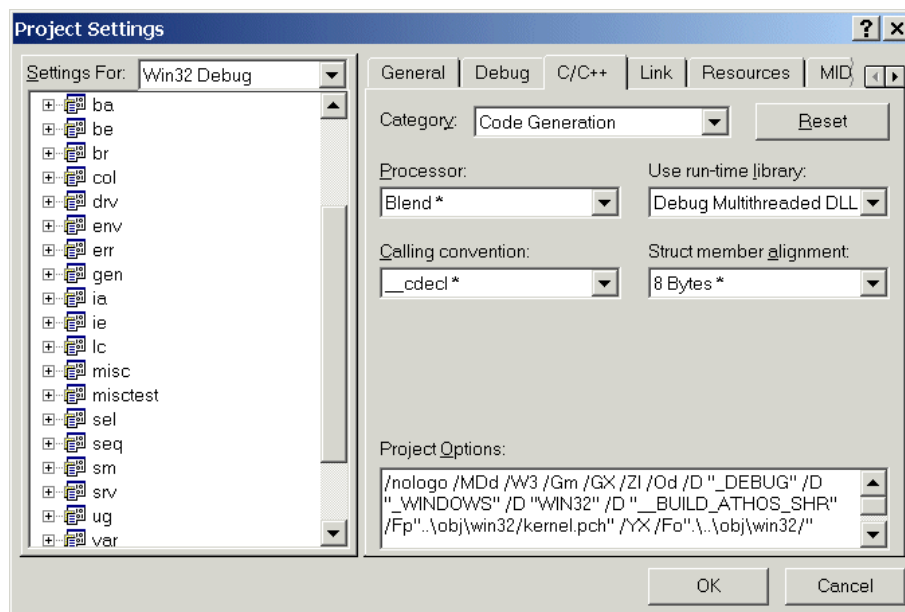


Figure 10.2: MSVC Compiler options

For Microsoft Visual Studio 2005 an additional setting is required. This version of the compiler has another way of handling the POSIX functions. Add the preprocessor definition

```
_CRT_SECURE_NO_DEPRECATED
```

to the settings the POSIX functions are handle as they where in the Microsoft Visual Studio 6 (Visual C/C++ 6.0). This definition must be added for the **Debug** and **Release** configuraton.

#### 10.1.4 Add Athos Library to sources

There are several ways in the Visual C/C++ compiler of the Microsoft Visual Studio 97 to add a library. We decided the Athos libraries to be part of the projects and added the files to the project. The library files of the Athos system are always added to the source files as show below.

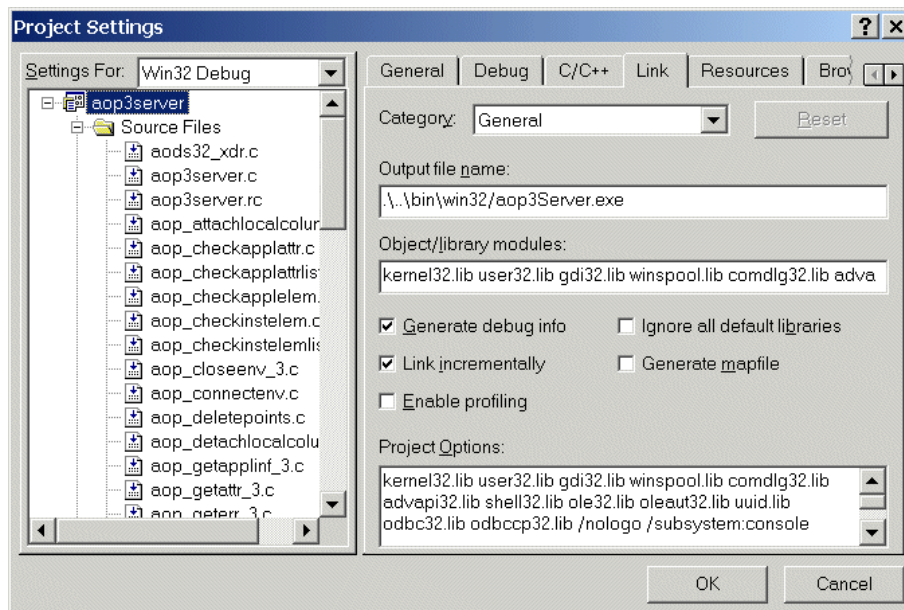


Figure 10.3: MSVC Link options

### 10.1.5 Set the output directory

The output directories of the "Debug" and "Release" are both in the same directory. Be careful that the directory has to start with '..\' as the current directory.

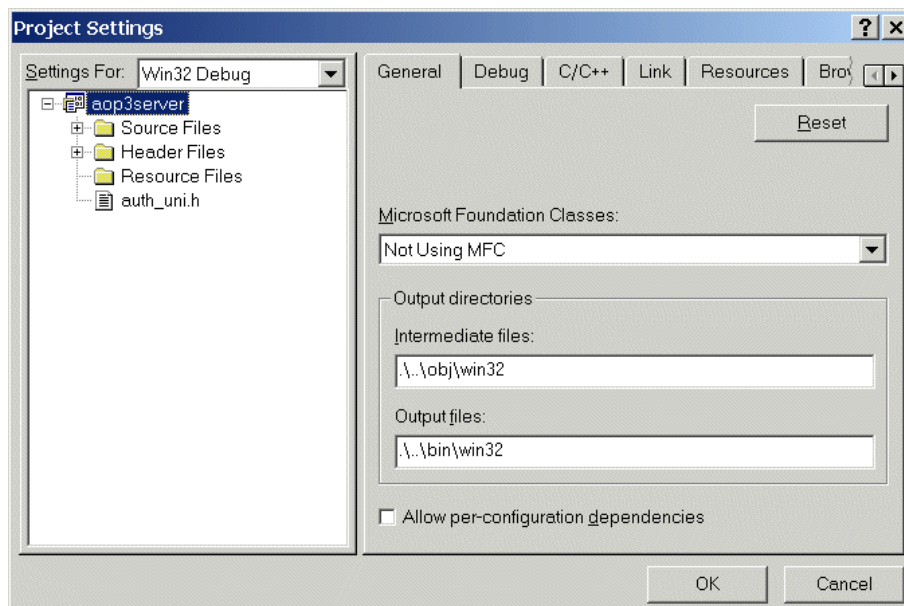


Figure 10.4: MSVC General options

### 10.1.6 Add additional system libraries

To add additional system libraries like `wsock32.lib`.

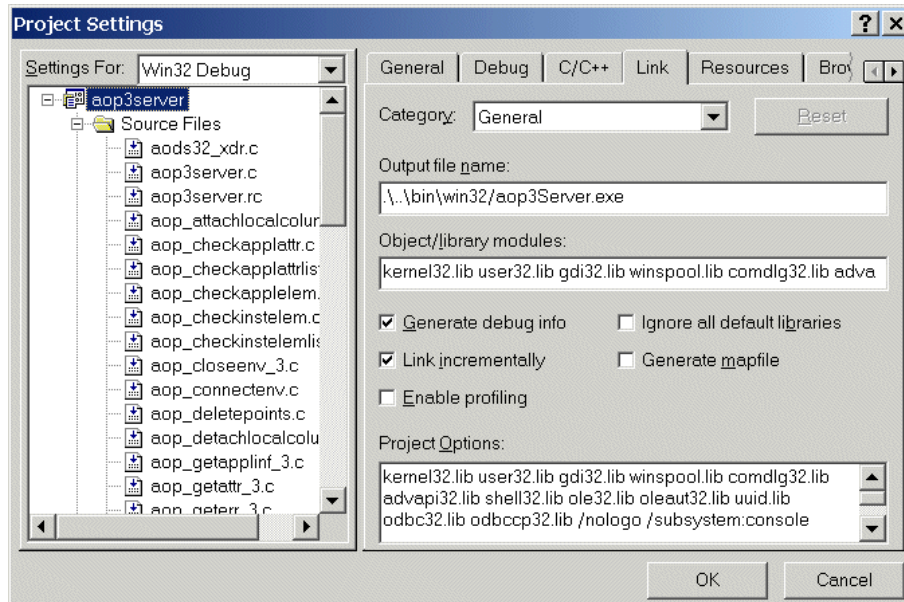


Figure 10.5: MSVC Link options

### 10.1.7 Athos Runtime System

The Athos Runtime System contains a lot of different projects, the compiling order of the projects is important. For the different operating systems there are files available that allow you to compile and link the total Athos Runtime System in the correct order.

### 10.1.8 Using the compile command "abuild"

There is a batch file called `abuild.bat` that will compile all the projects started from the current directory. When this command is started in the directory `%ATHOS_ROOT%` all projects will be compiled. This command uses the Project dependencies and makefiles of the visual studio projects.

Export the makefiles. Write the dependencies in the makefile at Microsoft Visual Studio 6.0.

Set the environment variables `MSVCDIR`, `INCLUDE` and `LIB`. Be careful that the `PATH` environment variable has the `'%ATHOS_ROOT%\bin\win32'` and for the C-Compiler `cl.exe` everything set. The best you can do is to register the environment variables during the installation of the Microsoft Visual Studio.

- The environment variable `MSVCDIR` must be set the to the root of the C/C++ compiler. The Installation of Microsoft Visual Studio 6.0 sets the variable `MSVCDIR` to the common directory, this will cause the `win32.mak` to not be found.

An example of the environment variables `MSVCDIR`, `LIB` and `INCLUDE` are given below, Visual Studio is installed in the directory `"C:\\Programme\\Microsoft Visual Studio"`. A part of the

environment variable PATH is also given for this location.

- MSVCDIR=C:\Programme\Microsoft Visual Studio\vc98
- PATH=C:\Programme\Microsoft Visual Studio\Common\MSDev98\Bin;C:\Programme\Microsoft Visual Studio\VC98\bin;d:\athos\bin\win32
- LIB= C:\Programme\Microsoft Visual Studio\vc98\lib
- INCLUDE= C:\Programme\Microsoft Visual Studio\vc98\include

Call 'abuild' in the directory %ATHOS\_ROOT% and the total ATHOS system will be compiled.

Abuild has three possible different parameters:

- Debug (Default) compile / link in debug mode.
- Release compile / link in release mode.
- Clean cleans the projects.

Example of the Makefile.NT file:

```
!include etc\Win32\machinedep.mk
```

Debug:

```
aCheck $(ATHOS_ROOT)\util Debug
```

Release:

```
aCheck $(ATHOS_ROOT)\util Release
```

Clean:

```
aCheck $(ATHOS_ROOT)\util Clean
```

Another example of the Makefile.NT:

```
!include ..\etc\Win32\machinedep.mk
```

Debug:

```
$(MAKE) /NOLOGO /F util.mak CFG="util - Win32 Debug"
```

Release:

```
$(MAKE) /NOLOGO /F util.mak CFG="util - Win32 Release"
```

clean:

```
$(MAKE) /NOLOGO /F util.mak CFG="util - Win32 Release" clean
```

The file 'util.mak' is the exported makefile from the Visual C/C++ developer studio. You can export a makefile at the menu 'project' the entry 'export makefile'.



### 10.1.9 Compiling on UNIX systems

On the UNIX-operating systems we have also the command 'abuild' to compile the whole Athos software products. Before the command can be called some environment settings are required. These setting will be done by the script 'setupathos'. This script must be called differently depending on the type of shell. The call is shown in the following table.

```
Shell Command
Sh source setupathos
Csh source setupathos.csh
```

The command can change for each operating system, ask your system administrator for the correct command to execute the command shell.

On the operating systems with the GNU C/C++ compiler the 'abuild' command works fine to compile the complete source system.

There are some operating systems installed with there own C compiler, on these operating systems we don't guarantee the 'abuild' command will work properly. There is a special command created for the HP-UX operating system with the HP C compiler called 'hpbuild'. There are no special dependencies for the HP-UX so if the 'abuild' command does not work, you can always try the command 'hpbuild'.



# Chapter 11

## Appendices

### 11.1 Athos Error Link List

- [0](#) AO\_UNKNOWN\_ERROR
- [1](#) AO\_ACCESS\_DENIED
- [2](#) AO\_BAD\_OPERATION
- [3](#) AO\_BAD\_PARAMETER
- [4](#) AO\_CONNECT\_FAILED
- [5](#) AO\_CONNECT\_REFUSED
- [6](#) AO\_CONNECTION\_LOST
- [7](#) AO\_DUPLICATE\_BASE\_ATTRIBUTE
- [8](#) AO\_DUPLICATE\_NAME
- [9](#) AO\_DUPLICATE\_VALUE
- [10](#) AO\_HAS\_INSTANCES
- [11](#) AO\_HAS\_REFERENCES
- [12](#) AO\_IMPLEMENTATION\_PROBLEM
- [13](#) AO\_INCOMPATIBLE\_UNITS
- [14](#) AO\_INVALID\_ASAM\_PATH
- [15](#) AO\_INVALID\_ATTRIBUTE\_TYPE
- [16](#) AO\_INVALID\_BASE\_ELEMENT
- [17](#) AO\_INVALID\_BASETYPE
- [18](#) AO\_INVALID\_BUILDUP\_FUNCTION
- [19](#) AO\_INVALID\_COLUMN
- [20](#) AO\_INVALID\_COUNT

- 21 AO\_INVALID\_DATATYPE
- 22 AO\_INVALID\_ELEMENT
- 23 AO\_INVALID\_LENGTH
- 24 AO\_INVALID\_ORDINALNUMBER
- 25 AO\_INVALID\_RELATION
- 26 AO\_INVALID\_RELATION\_RANGE
- 27 AO\_INVALID\_RELATION\_TYPE
- 28 AO\_INVALID\_RELATIONSHIP
- 29 AO\_INVALID\_SET\_TYPE
- 30 AO\_INVALID\_SMATLINK
- 31 AO\_INVALID\_SUBMATRIX
- 32 AO\_IS\_BASE\_ATTRIBUTE
- 33 AO\_IS\_BASE\_RELATION
- 34 AO\_IS\_MEASUREMENT\_MATRIX
- 35 AO\_MATH\_ERROR
- 36 AO\_MISSING\_APPLICATION\_ELEMENT
- 37 AO\_MISSING\_ATTRIBUTE
- 38 AO\_MISSING\_RELATION
- 39 AO\_MISSING\_VALUE
- 40 AO\_NO\_MEMORY
- 41 AO\_NO\_PATH\_TO\_ELEMENT
- 42 AO\_NOT\_FOUND
- 43 AO\_NOT\_IMPLEMENTED
- 44 AO\_NOT\_UNIQUE
- 45 AO\_OPEN\_MODE\_NOT\_SUPPORTED
- 46 AO\_SESSION\_LIMIT\_REACHED
- 47 AO\_SESSION\_NOT\_ACTIVE
- 48 AO\_TRANSACTION\_ALREADY\_ACTIVE
- 49 AO\_TRANSACTION\_NOT\_ACTIVE
- 50 AO\_HAS\_BASE\_RELATION
- 51 AO\_HAS\_BASE\_ATTRIBUTE
- 52 AO\_UNKNOWN\_UNIT
- 53 AO\_NO\_SCALING\_COLUMN

- [54](#) AO\_QUERY\_TYPE\_INVALID
- [55](#) AO\_QUERY\_INVALID
- [56](#) AO\_QUERY\_PROCESSING\_ERROR
- [57](#) AO\_QUERY\_TIMEOUT\_EXCEEDED
- [58](#) AO\_QUERY\_INCOMPLETE
- [59](#) AO\_QUERY\_INVALID\_RESULTTYPE
- [60](#) AO\_INVALID\_VALUEMATRIX\_STRUCTURE
- [100](#) AO\_LAST\_ODS\_ERROR
- [902](#) AO\_HAS\_ELEMENTS
- [903](#) AO\_SYNTAX\_ERROR\_IN\_ASAMPATH
- [904](#) AO\_UNABLE\_OPEN\_FILE
- [905](#) AO\_FILE\_OPEN
- [1000](#) AO\_CONNECT\_EVENTLOG
- [1001](#) AO\_CLOSE\_EVENTLOG
- [1002](#) AO\_SUPPRESS\_REPORT
- [1003](#) AO\_REPORT\_ALL\_EVENT
- [1004](#) AO\_THREAD\_START
- [1005](#) AO\_THREAD\_STOP
- [1006](#) AO\_ERROR\_THREAD\_CREATE
- [1100](#) AO\_DRIVER\_LOAD\_SUCCESSFUL
- [1500](#) AO\_EVENT
- [2500](#) AO\_UNKNOWN\_UNICODE\_CHAR
- [2501](#) AO\_UNKNOWN\_KEYWORD\_VALUE
- [3000](#) AO\_NO\_OBJECT
- [3001](#) AO\_WRONG\_OBJECT
- [3002](#) AO\_UNKNOWN\_DATATYPE
- [3003](#) AO\_NO\_ARRAY
- [3004](#) AO\_ARRAY\_ERROR
- [3005](#) AO\_NO\_VALUES\_ARRAY
- [3006](#) AO\_NO\_COPY\_FUNCTION
- [3007](#) AO\_NO\_VALUE
- [3008](#) AO\_IS\_READONLY
- [3009](#) AO\_NO\_NAME

- 3010 AO\_NO\_PUT\_OBJECT
- 3011 AO\_NO\_DISCONNECT
- 3013 AO\_NO\_OPENENV
- 3014 AO\_NO\_GET\_OBJECT
- 3015 AO\_NO\_DRIVERNAME
- 3016 AO\_NO\_SHAREOBJECT
- 3017 AO\_LOAD\_DRIVER
- 3018 AO\_ERROR\_MSG
- 3019 AO\_NO\_VALUE\_SIZE
- 3020 AO\_OUT\_OF\_RANGE
- 3021 AO\_NO\_DRIVER
- 3022 AO\_NO\_ENVIRONMENT
- 3023 AO\_UNABLE\_LOAD\_DRIVER
- 3025 AO\_IS\_SAME\_POINTER
- 3026 AO\_NO\_BASEREF
- 3027 AO\_NO\_BASEATTR
- 3028 AO\_NO\_ATTROBJ
- 3029 AO\_NO\_REFOBJECT
- 3030 AO\_NO\_APPLELEM
- 3031 AO\_ONLY\_ONE\_ENV
- 3032 AO\_NO\_BASEELEM
- 3033 AO\_WRONG\_BA\_DATATYPE
- 3034 AO\_NO\_SERVICE
- 3035 AO\_NO\_SRV\_FOUND
- 3036 AO\_NO\_DESTRUCTION
- 3038 AO\_UNABLE\_WRITE\_FILE
- 3039 AO\_NO\_INIT\_FILE
- 3040 AO\_DIM\_ALREADY\_SET
- 3041 AO\_NO\_MATRIX
- 3042 AO\_NO\_SEQUENCE
- 3043 AO\_NO\_COLLECTION
- 3044 AO\_WRONG\_NUMBER\_IN\_COLUMN
- 3045 AO\_NO\_SUBMAT

- [3046](#) AO\_NO\_MEA\_BASEELEM
- [3047](#) AO\_NO\_ID
- [3048](#) AO\_NO\_INSTELEM
- [3049](#) AO\_NO\_REFERENCE\_FOUND
- [3050](#) AO\_ALREADY\_IN\_LIST
- [3051](#) AO\_WRONG\_DATE
- [3053](#) AO\_NO\_LC\_FOUND
- [3054](#) AO\_NO\_TARGET\_FOUND
- [3055](#) AO\_UNABLE\_INIT\_SOCKET
- [3056](#) AO\_WRONG\_ASAMPATH
- [3057](#) AO\_NO\_UNIQUE\_ASAMPATH
- [3058](#) AO\_NO\_DATATYPE
- [3059](#) AO\_NO\_LC\_FOR\_MEQ
- [3060](#) AO\_NOTHING\_TO\_SET
- [3061](#) AO\_WRONG\_ENVIRONMENT
- [3062](#) AO\_NO\_RELATION\_FOUND
- [3063](#) AO\_INVALID\_REQUEST
- [3064](#) AO\_WRONG\_DATATYPE
- [3065](#) AO\_ORPHAN\_APPLICATION\_ELEMENTS
- [3066](#) AO\_NO\_FATHER
- [3067](#) AO\_NO\_UNIQUE\_INSTANCE
- [3068](#) AO\_NO\_SUB\_BASEELEM
- [3069](#) AO\_NO\_LCC\_BASEELEM
- [3070](#) AO\_WRONG\_BASEELEM
- [3071](#) AO\_NOT\_IN\_SAME\_STRUCTURE
- [3072](#) AO\_NO\_LOCALCOLUMN
- [3073](#) AO\_NO\_COLUMN
- [3076](#) AO\_NO\_APPLELEMS
- [3077](#) AO\_NO\_SMATLINK
- [3078](#) AO\_MORE\_INDEP\_CHANNEL
- [3080](#) AO\_NO\_INSTANCE\_ATTRIBUTE
- [3081](#) AO\_RELATED\_INST\_LEFT
- [3082](#) AO\_WRONG\_APPLELEM

- 3083 AO\_FOUND\_DIFFERENCE
- 3084 AO\_NO\_TARGET
- 3085 AO\_UNKNOWN\_RELATIONSHIP
- 3086 AO\_NO\_INVERSE\_REFERENCE
- 3087 AO\_TO\_MUCH\_FATHER
- 3088 AO\_NO\_SPACE\_LEFT
- 3089 AO\_NO\_PASSWORD
- 3090 AO\_WRONG\_PASSWORD
- 3091 AO\_WITHOUT\_PASSWORD
- 3092 AO\_UNKNOWN\_NUMBER\_OF\_VALUES
- 3093 AO\_TO\_MUCH\_ELEMENTS
- 3094 AO\_WRONG\_USERNAME
- 3095 AO\_NOT\_IN\_USERGROUP
- 3096 AO\_UNSUPPORTED\_MODE
- 3097 AO\_WRONG\_NAME
- 3098 AO\_DIFFERENT\_ENV\_NAMES
- 3099 AO\_OLD\_BASE\_MODEL
- 3100 AO\_NO\_STRUCTURE
- 3101 AO\_WRONG\_STRUCTURE
- 3102 AO\_WRONG\_LENGTH
- 3103 AO\_WRONG\_CONFIG
- 3104 AO\_WIN32\_ERROR
- 3105 AO\_SVCTABLE\_ERROR
- 3106 AO\_BASE\_ATTRIBUTE\_REQUIRED
- 3107 AO\_ATTRIBUTE\_AUTO\_GENERATED
- 3108 AO\_NO\_INV\_REFERENCE
- 3109 AO\_NO\_BASE\_REFERENCE
- 3110 AO\_DEADLOCK\_DETECT
- 3111 AO\_WRONG\_ATTRIBUTE
- 3112 AO\_DIVISION\_BY\_ZERO
- 3200 AO\_NULL\_POINTER
- 3300 AO\_WRONG\_FILETYPE
- 3500 AO\_NO\_BASEELEMENT



- 3501 AO\_WRONG\_BASEATTR
- 3600 AO\_NO\_TIMESTAMP
- 4000 AOP\_UNEXPECTED\_STATE
- 4001 AOP\_RETVAL\_ZERO
- 4002 AOP\_DELETE\_NOTHING
- 4003 AOP\_DT\_MISMATCH
- 4004 AOP\_NO\_ENVIRONMENT
- 4005 AOP\_NO\_LOCALCOLUMN
- 4006 AOP\_UNKNOWN\_DATATYPE
- 4007 AO\_FILEVERSION\_NOT\_SUPPORTED
- 4008 AO\_FILETYPE\_NOT\_SUPPORTED
- 4010 AOP\_SVC\_ERROR
- 4011 AO\_NOT\_CLOSED
- 4500 AO\_DRIVER\_CRASHED
- 5000 AO\_UNKNOWN\_CLIENT
- 5050 AO\_NO\_CLASS
- 5051 AO\_NO\_FIELDID
- 5052 AO\_NO\_METHODID
- 6000 AO\_NO\_ENV\_ELEM
- 6001 AO\_SYNTAX\_NAME
- 6002 AO\_SYNTAX\_BAN
- 6003 AO\_SYNTAX\_BADT
- 6004 AO\_SYNTAX\_BASK
- 6005 AO\_SYNTAX\_BRFN
- 6006 AO\_SYNTAX\_BRCN
- 6007 AO\_SYNTAX\_BRIN
- 6010 AO\_ORPHAN\_BASE\_ELEMENTS
- 7000 AO\_NO\_DRIVER\_INFO
- 7003 AO\_OPEN\_ENV
- 7004 AO\_ENV\_NOT\_OPEN
- 7005 AO\_NO\_CARD
- 7006 AO\_CLOSE\_ENV
- 7500 WINNT\_SERVICE\_CONTROL

- 7501 WINNT\_UNABLE\_REGISTER
- 7502 WINNT\_OPEN\_SERVICECONTROLMANAGER
- 7503 WINNT\_OPEN\_SERVICE
- 7504 WINNT\_START\_SERVICE\_ERROR
- 7505 WINNT\_START\_SERVICE
- 7506 WINNT\_CONTROL\_SERVICE\_ERROR
- 7507 WINNT\_SERVICE\_WRONG\_STATE
- 7508 WINNT\_SERVICE\_STATE
- 7509 WINNT\_SERVICE\_STATE\_ERROR
- 8000 ATF\_MISSING\_QUOTE
- 8001 ATF\_TOKEN\_TOO\_LONG
- 8002 ATF\_NO\_ATF\_FILE
- 8003 ATF\_WRONG\_ATF\_VERSION
- 8004 ATF\_NO\_TERMINATOR
- 8005 ATF\_WRONG\_TOKEN
- 8006 ATF\_MISSING\_IDENTIFIER
- 8007 ATF\_ALREADY\_DEFINED
- 8008 ATF\_SEEK\_ERROR
- 8500 XATF\_ERROR\_FOUND
- 8501 XATF\_ERROR\_REPORT
- 8502 XATF\_WARNING\_FOUND
- 9000 AO\_NO\_ENVNAME
- 9002 AO\_NO\_APPLELEMS\_LOAD
- 9003 AO\_NO\_APPLATTRS\_LOAD
- 9004 AO\_WRONG\_ARGUMENTS
- 9005 AO\_NO\_INSTATTR\_LOAD
- 9006 AO\_NO\_SUBMAT\_LOAD
- 9007 AO\_NO\_LOCALCOLUMN\_LOAD
- 9008 AO\_NO\_VALUES\_LOAD
- 9009 AO\_UNKNOWN\_SAVE\_MODE
- 9050 AO\_SQL\_ERROR\_STATE
- 9051 AO\_SQL\_NATIVE\_ERROR
- 9052 AO\_SQL\_ERROR\_MSG

- [9053](#) AO\_USE\_DATABASE
- [9055](#) AO\_ERROR\_IN\_SQL
- [9056](#) AO\_SQL\_INFORMATION
- [9060](#) AOD\_UNABLE\_PUT\_APPLELEM
- [9061](#) AOD\_UNABLE\_CREATE\_TABLE
- [9062](#) AOD\_UNABLE\_CHANGE\_APPLELEM
- [9063](#) AOD\_NO\_MEQ
- [9064](#) AOD\_UNABLE\_TO\_INSERT
- [9065](#) AOD\_NO\_APPLELEM
- [9066](#) AO\_STMT\_TO\_LONG
- [9070](#) AO\_ORACLE\_ERROR\_STATEMENT
- [9071](#) AO\_ORACLE\_NATIVE\_ERROR
- [9072](#) AO\_ORACLEL\_ERROR\_MSG
- [9073](#) AO\_NOT\_ALL\_INSTANCE\_LOADED
- [9999](#) AO\_SUPERUSER\_LOGIN
- [10000](#) AOC\_WRITE\_DENY
- [10001](#) AOC\_UNKNOWN\_MODE
- [21000](#) P3D\_CANNOT\_LOAD\_VIEW
- [21001](#) P3D\_CANNOT\_LOAD\_MODEL
- [21002](#) P3D\_CANNOT\_LOAD\_CONTROL
- [21003](#) P3D\_CANNOT\_UPDATE\_VIEW
- [21004](#) P3D\_CANNOT\_UPDATE\_MODEL
- [21005](#) P3D\_CANNOT\_UPDATE\_CONTROL
- [21006](#) P3D\_COMPONENT\_IS\_NOT\_REGISTERED
- [21050](#) P3D\_NO\_PARENT\_NODE
- [21051](#) P3D\_ILLEGAL\_SHARING
- [21100](#) P3D\_CAPABILITY\_NOT\_SET
- [21150](#) P3D\_COMPONENT\_ARRAY\_INDEX\_OUT\_OF\_BOUNDS
- [21200](#) P3D\_WRONG\_AXIS\_TYPE\_VALUE
- [21201](#) P3D\_CANNOT\_SET\_AXIS\_DEFAULTS
- [21202](#) P3D\_CANNOT\_SET\_CHANNEL\_DEFAULTS
- [21203](#) P3D\_CANNOT\_SET\_TEXT\_DEFAULTS
- [21204](#) P3D\_CANNOT\_SET\_LINE\_DEFAULTS

- 21205 P3D\_CANNOT\_SET\_PLOT\_DEFAULTS
- 21300 P3D\_INVALID\_CHANNEL\_NAME
- 21400 P3D\_CANNOT\_CAST\_TO\_AXIS
- 21401 P3D\_CANNOT\_CAST\_TO\_CHANNEL
- 22001 FWK\_CLASS\_INSTANTIATION\_SUCCESSFUL
- 22002 FWK\_SERVICE\_CONTROL\_MANAGER\_START\_SUCCESSFUL
- 22003 FWK\_ASAM\_ODS\_SERVICE\_CREATION\_SUCCESSFUL
- 22004 FWK\_ASAM\_ODS\_FACTORY\_CREATION\_SUCCESSFUL
- 22005 FWK\_ORB\_CREATION\_SUCCESSFUL
- 22006 FWK\_NAME\_SERVICE\_CREATION\_SUCCESSFUL
- 22007 FWK\_NAME\_SERVICE\_FOUND
- 22008 FWK\_BIND\_TO\_NAME\_SERVICE\_SUCCESSFUL
- 22009 FWK\_NAME\_SERVER\_UP
- 22010 FWK\_NO\_ROOT\_NAMING\_CONTEXT
- 22011 FWK\_NO\_NAMING\_CONTEXT
- 22050 FWK\_SERVICE\_STATE\_REPORT
- 22101 FWK\_CLASS\_INSTANTIATION\_FAILED
- 22102 FWK\_CLASS\_NOT\_FOUND
- 22103 FWK\_CONSTRUCTOR\_NOT\_FOUND
- 22104 FWK\_DOCUMENT\_NODE\_UNKNOWN
- 22105 FWK\_INPUT\_FAILED
- 22106 FWK\_METHOD\_INVOCATION\_FAILED
- 22107 FWK\_METHOD\_NOT\_FOUND
- 22108 FWK\_OUTPUT\_FAILED
- 22109 FWK\_XML\_PARSER\_PROBLEM
- 22110 FWK\_UNKNOWN\_HOST
- 22111 FWK\_UNABLE\_TO\_JOIN\_INFOBUS
- 22112 FWK\_WRONG\_LISTENER\_CONTROLLER\_TYPE
- 22113 FWK\_CANNOT\_CREATE\_DATAFLAVOR
- 22114 FWK\_ARRAY\_INDEX\_OUT\_OF\_BOUNDS
- 22115 FWK\_HELPSET\_NOT\_FOUND
- 22116 FWK\_PROPERTY\_VETO
- 22117 FWK\_IS\_ETERNAL\_AND\_ALREADY\_REGISTERED

- [22118](#) FWK\_CANNOT\_START\_FRAME
- [22119](#) FWK\_WRONG\_STRING\_FORMAT
- [22120](#) FWK\_PROPERTY\_CAST\_FAILED
- [22121](#) FWK\_NO\_AUTOSTART
- [22501](#) FWK\_LOAD\_LIBRARY\_NOT\_FOUND
- [22502](#) FWK\_SERVICE\_CONTROL\_MANAGER\_START\_FAILED
- [22503](#) FWK\_UNABLE\_START\_VM
- [22504](#) FWK\_ASAM\_ODS\_SERVICE\_CREATION\_FAILED
- [22505](#) FWK\_ASAM\_ODS\_FACTORY\_CREATION\_FAILED
- [22506](#) FWK\_ORB\_CREATION\_FAILED
- [22507](#) FWK\_NAME\_SERVICE\_CREATION\_FAILED
- [22508](#) FWK\_NAME\_SERVICE\_NOT\_FOUND
- [22509](#) FWK\_BIND\_TO\_NAME\_SERVICE\_FAILED
- [22510](#) FWK\_PORT\_ADDRESS\_IN\_USE
- [23000](#) INFOBUS\_REJECTED\_JOIN
- [23001](#) INFOBUS\_INVALID\_NAME
- [23002](#) INFOBUS\_MISSING\_SEPARATOR\_IN\_NAME
- [23003](#) INFOBUS\_UNABLE\_TO\_LEAVE
- [23004](#) INFOBUS\_UNABLE\_TO\_CREATE\_DATAFLAVOR
- [30000](#) PUMA\_INVALID\_HOSTNAME
- [30001](#) PUMA\_INVALID\_PORT
- [30002](#) PUMA\_NO\_SESSION\_FOUND
- [30003](#) PUMA\_WRONG\_MSG\_TYPE
- [30004](#) PUMA\_WRONG\_STATUS
- [30005](#) PUMA\_WRONG\_ERROR
- [30006](#) PUMA\_WRONG\_SEVERITY
- [30007](#) PUMA\_WRONG\_DESTINATIONBITS
- [30008](#) PUMA\_ENGINE\_FAILURE
- [31000](#) CONVERTER\_UNABLE\_OPEN\_FILE
- [65535](#) EXTERNAL\_ERROR
- [65535](#) EXTERNAL\_INFO
- [65535](#) EXTERNAL\_WARNING

## 11.2 Athos Error Messages

### AO\_UNKNOWN\_ERROR

This error should not occur. If it does, it shows that there is a problem in the implementation.  
Use 0 as unknown error to avoid confusing error messages if no error code set.

Event number	0
Event synopsis	No error code.
Event type	Error

### AO\_ACCESS\_DENIED

Access denied.  
Access deny for %4

Event number	1
Event synopsis	Access denied.
Event type	Error

### AO\_BAD\_OPERATION

A method is invalid in a marshalling operation.

Event number	2
Event synopsis	Method invalid in marshalling operation.
Event type	Error

### AO\_BAD\_PARAMETER

A bad parameter was passed to the called method.  
The bad parameter is: %4

Event number	3
Event synopsis	Bad parameter passed as an argument.
Event type	Error

### AO\_CONNECT\_FAILED

The connection failed. With the following information the system tried to make the connect:  
%4

Event number	4
Event synopsis	Connect failed.
Event type	Error

### AO\_CONNECT\_REFUSED

The connection is refused.

Event number	5
Event synopsis	Connect refused.
Event type	Error

### AO\_CONNECTION\_LOST

The connection to the server was lost.

Event number	6
Event synopsis	Connection lost.
Event type	Error

### AO\_DUPLICATE\_BASE\_ATTRIBUTE

The application structure check has detected two application attributes within an application element that are derived from the same base attribute.

Event number	7
Event synopsis	Duplicate base attribute.
Event type	Error

**AO\_DUPLICATE\_NAME**

Duplicate name is not allowed. The name must be unique.

The duplicate name is found:

%4

<b>Event number</b>	8
<b>Event synopsis</b>	Duplicate name
<b>Event type</b>	Error

**AO\_DUPLICATE\_VALUE**

Duplicate attribute names are not allowed.

The duplicate value found at:

%4

<b>Event number</b>	9
<b>Event synopsis</b>	Duplicate attribute names are not allowed.
<b>Event type</b>	Error

**AO\_HAS\_INSTANCES**

The current application element has instances and the requested operation cannot be performed when instances are present.

<b>Event number</b>	10
<b>Event synopsis</b>	Application element has instances.
<b>Event type</b>	Error

**AO\_HAS\_REFERENCES**

The current element has relations and the requested operation cannot be performed when relations are present.

<b>Event number</b>	11
<b>Event synopsis</b>	Element has relations.
<b>Event type</b>	Error

**AO\_IMPLEMENTATION\_PROBLEM**

The implementation encountered a none ASAM ODS problem. Please see the following description for details.

Detailed description of the implementation problem: %4

<b>Event number</b>	12
<b>Event synopsis</b>	Implementation problem encountered.
<b>Event type</b>	Error

**AO\_INCOMPATIBLE\_UNITS**

The units are incompatible. No conversion rules known.

<b>Event number</b>	13
<b>Event synopsis</b>	Incompatible units. No conversion rules known.
<b>Event type</b>	Warning

**AO\_INVALID\_ASAM\_PATH**

The specified ASAM path is invalid.

The given ASAM path is: %4

<b>Event number</b>	14
<b>Event synopsis</b>	Invalid ASAM path.
<b>Event type</b>	Warning

**AO\_INVALID\_ATTRIBUTE\_TYPE**

The requested attribute type is invalid.

<b>Event number</b>	15
<b>Event synopsis</b>	Invalid attribute type.
<b>Event type</b>	Warning

**AO\_INVALID\_BASE\_ELEMENT**

The application structure check has detected an application element that is derived from an invalid base element.

<b>Event number</b>	16
<b>Event synopsis</b>	Invalid base element.
<b>Event type</b>	Error

**AO\_INVALID\_BASETYPE**

The specified base type is invalid. The invalid base type is found at:

<b>Event number</b>	17
<b>Event synopsis</b>	Invalid base type.
<b>Event type</b>	Warning

**AO\_INVALID\_BUILDUP\_FUNCTION**

The specified build-up function is invalid.

<b>Event number</b>	18
<b>Event synopsis</b>	Invalid build-up function.
<b>Event type</b>	Warning

**AO\_INVALID\_COLUMN**

The specified column is invalid.

<b>Event number</b>	19
<b>Event synopsis</b>	Invalid column.
<b>Event type</b>	Warning

**AO\_INVALID\_COUNT**

The specified number of points is invalid.

<b>Event number</b>	20
<b>Event synopsis</b>	Invalid number of points.
<b>Event type</b>	Warning

**AO\_INVALID\_DATATYPE**

The specified datatype is invalid.

The invalid datatype is:

<b>Event number</b>	21
<b>Event synopsis</b>	Invalid datatype.
<b>Event type</b>	Warning

**AO\_INVALID\_ELEMENT**

The element is not valid in this context.

<b>Event number</b>	22
<b>Event synopsis</b>	Invalid element.
<b>Event type</b>	Error



**AO\_INVALID\_LENGTH**

The given length is invalid. More details are:

%4

<b>Event number</b>	23
<b>Event synopsis</b>	Invalid length.
<b>Event type</b>	Warning

**AO\_INVALID\_ORDINALNUMBER**

The ordinal number is either already used or less than zero.

<b>Event number</b>	24
<b>Event synopsis</b>	Invalid ordinal number.
<b>Event type</b>	Warning

**AO\_INVALID\_RELATION**

The found relation between two elements is unknown. There is no description about this relation in the ASAM base model. The base ID of the application elements can be wrong or an application defined relation is found.

Relation found from:%t%4

The relation is ignored.

<b>Event number</b>	25
<b>Event synopsis</b>	Invalid type.
<b>Event type</b>	Warning

**AO\_INVALID\_RELATION\_RANGE**

The specified relation range is invalid.

<b>Event number</b>	26
<b>Event synopsis</b>	Invalid relation range.
<b>Event type</b>	Warning

**AO\_INVALID\_RELATION\_TYPE**

Invalid relation type.

<b>Event number</b>	27
<b>Event synopsis</b>	Invalid relation type.
<b>Event type</b>	Error

**AO\_INVALID\_RELATIONSHIP**

The specified relationship is invalid.

<b>Event number</b>	28
<b>Event synopsis</b>	Invalid relationship.
<b>Event type</b>	Warning

**AO\_INVALID\_SET\_TYPE**

The specified set-type is invalid.

<b>Event number</b>	29
<b>Event synopsis</b>	Invalid set-type.
<b>Event type</b>	Warning

**AO\_INVALID\_SMATLINK**

The submatrix link is invalid.

<b>Event number</b>	30
<b>Event synopsis</b>	Invalid submatrix link.
<b>Event type</b>	Warning

**AO\_INVALID\_SUBMATRIX**

The specified submatrix is invalid.

More details: %4

<b>Event number</b>	31
<b>Event synopsis</b>	Invalid submatrix.
<b>Event type</b>	Warning

**AO\_IS\_BASE\_ATTRIBUTE**

The attribute is an base attribute.

<b>Event number</b>	32
<b>Event synopsis</b>	Attribute is base attribute.
<b>Event type</b>	Error

**AO\_IS\_BASE\_RELATION**

Properties of base relations may not be changed.

<b>Event number</b>	33
<b>Event synopsis</b>	Unable to modify base relation properties.
<b>Event type</b>	Warning

**AO\_IS\_MEASUREMENT\_MATRIX**

It is not allowed to modify composed measurement matrixes.

<b>Event number</b>	34
<b>Event synopsis</b>	Unable to modify composed measurement matrixes.
<b>Event type</b>	Warning

**AO\_MATH\_ERROR**

A computation error occurred.

<b>Event number</b>	35
<b>Event synopsis</b>	Computation error.
<b>Event type</b>	Warning

**AO\_MISSING\_APPLICATION\_ELEMENT**

The application element is missing.

<b>Event number</b>	36
<b>Event synopsis</b>	Missing application element.
<b>Event type</b>	Error

**AO\_MISSING\_ATTRIBUTE**

The application structure check has detected an application element that does not have all attributes required by the base structure.

The missing attribute is: %4

<b>Event number</b>	37
<b>Event synopsis</b>	Missing application attribute.
<b>Event type</b>	Error

**AO\_MISSING\_RELATION**

The application structure check has detected an application element that does not have all relations required by the base structure.

The missing relation is: %4

<b>Event number</b>	38
<b>Event synopsis</b>	Missing application relation.
<b>Event type</b>	Error

**AO\_MISSING\_VALUE**

An obligatory value is missing.

<b>Event number</b>	39
<b>Event synopsis</b>	Missing obligatory value.
<b>Event type</b>	Warning

**AO\_NO\_MEMORY**

There is no more memory available.

<b>Event number</b>	40
<b>Event synopsis</b>	No more memory available.
<b>Event type</b>	Error

**AO\_NO\_PATH\_TO\_ELEMENT**

The application structure check has detected an application element that cannot be reached via an ASAM path. The element is not properly hooked into the application structure.

<b>Event number</b>	41
<b>Event synopsis</b>	No path to application element.
<b>Event type</b>	Error

**AO\_NOT\_FOUND**

The requested object was not found.

The object searched for was: <%4>

<b>Event number</b>	42
<b>Event synopsis</b>	Object not found.
<b>Event type</b>	Warning

**AO\_NOT\_IMPLEMENTED**

This feature is not yet implemented.

The not implemented feature is: <%4>

Please inform the developers which features is required.

<b>Event number</b>	43
<b>Event synopsis</b>	Feature not yet implemented.
<b>Event type</b>	Warning

**AO\_NOT\_UNIQUE**

This error occurs if the instances of a property are required to be unique.

%4

<b>Event number</b>	44
<b>Event synopsis</b>	Attribute value not unique.
<b>Event type</b>	Warning

**AO\_OPEN\_MODE\_NOT\_SUPPORTED**

The requested open mode is not supported.

<b>Event number</b>	45
<b>Event synopsis</b>	Open mode not supported.
<b>Event type</b>	Error

**AO\_SESSION\_LIMIT\_REACHED**

The number of sessions is limited for this server. No more sessions available.

Try again later.

<b>Event number</b>	46
<b>Event synopsis</b>	Session limit reached.
<b>Event type</b>	Error

**AO\_SESSION\_NOT\_ACTIVE**

The requested session is not active. It may have been closed earlier.

Anyway: You are beating a dead horse!

<b>Event number</b>	47
<b>Event synopsis</b>	Session no longer active.
<b>Event type</b>	Error

**AO\_TRANSACTION\_ALREADY\_ACTIVE**

Tried to start a transaction in a session where a transaction is already active. Please check the calling program.

<b>Event number</b>	48
<b>Event synopsis</b>	Transaction already active.
<b>Event type</b>	Warning

**AO\_TRANSACTION\_NOT\_ACTIVE**

Tried to changed the ASAM ODS data storage without starting a transaction. Start a transaction before you create or modify any data in the ASAM ODS data storage. When you commit the transaction the changes become permanent and visible for the other users.

<b>Event number</b>	49
<b>Event synopsis</b>	Transaction not active.
<b>Event type</b>	Warning

**AO\_HAS\_BASE\_RELATION**

Base relation found. It is not allowed to modify the relationtype, -range or -ship of an application relation derived from a base relation.

The name of the application relation is: %4

<b>Event number</b>	50
<b>Event synopsis</b>	Base relation found.
<b>Event type</b>	Error

**AO\_HAS\_BASE\_ATTRIBUTE**

Base attribute found. It is not allowed to modify the datatype, unique- or obligatory flag .

The name of the application attribute is: %4

<b>Event number</b>	51
<b>Event synopsis</b>	Base attribute found.
<b>Event type</b>	Error

**AO\_UNKNOWN\_UNIT**

The physical unit is unknown. The given unit was not found as an instance name of the application element derived from AoUnit.

Name of the unit: %4

<b>Event number</b>	52
<b>Event synopsis</b>	Unknown physical unit.
<b>Event type</b>	Warning

**AO\_NO\_SCALING\_COLUMN**

The given column is not a scaling column. The method expects a scaling column as input column.

<b>Event number</b>	53
<b>Event synopsis</b>	Column is no scaling column.
<b>Event type</b>	Error

**AO\_QUERY\_TYPE\_INVALID**

The server does not support the specified query language type.

Request query language: %4

<b>Event number</b>	54
<b>Event synopsis</b>	Invalid query type.
<b>Event type</b>	Error

**AO\_QUERY\_INVALID**

Some error in the query string or some inconsistency between the return type of the query string and the result type specified by parameter "QueryResultType" has been detected.

%4

<b>Event number</b>	55
<b>Event synopsis</b>	Invalid query.
<b>Event type</b>	Error

**AO\_QUERY\_PROCESSING\_ERROR**

Some error occurred during the execution of the query.

<b>Event number</b>	56
<b>Event synopsis</b>	Query processing error.
<b>Event type</b>	Error

**AO\_QUERY\_TIMEOUT\_EXCEEDED**

It was not possible to execute the query within the time limit set by parameter "Max-Duration".

maxDuration = %4

<b>Event number</b>	57
<b>Event synopsis</b>	Query timeout.
<b>Event type</b>	Error

**AO\_QUERY\_INCOMPLETE**

The execution of the query was not yet completed.

<b>Event number</b>	58
<b>Event synopsis</b>	Query not yet completed.
<b>Event type</b>	Informational

**AO\_QUERY\_INVALID\_RESULTTYPE**

The requested result type of the query do not match with the previous definition of the result type.

%4

<b>Event number</b>	59
<b>Event synopsis</b>	Invalid result type.
<b>Event type</b>	Warning

**AO\_INVALID\_VALUEMATRIX\_STRUCTURE**

The server is unable to create the valuematrix due to the data of the measurement

- if there are no independent column
- if there are different independent columns
- if there are submatrices with more than one independent column.

Reason: %4

<b>Event number</b>	60
<b>Event synopsis</b>	Unable to create the value matrix of the measurement.
<b>Event type</b>	Warning

**AO\_LAST\_ODS\_ERROR**

This code must always be the last standard ASAM ODS error code.

<b>Event number</b>	100
<b>Event synopsis</b>	Last ASAM-ODS standard error code.
<b>Event type</b>	Informational

**AO\_HAS\_ELEMENTS**

Elements are present and the requested operation cannot be performed when elements are present.

<b>Event number</b>	902
<b>Event synopsis</b>	Elements are present.
<b>Event type</b>	Error

**AO\_SYNTAX\_ERROR\_IN\_ASAMPATH**

A syntax error in the ASAM path was found. Please correct the ASAM path. See at the parameter which error is found.

Given ASAM Path is :

%4

<b>Event number</b>	903
<b>Event synopsis</b>	Syntax error in ASAM path.
<b>Event type</b>	Warning

**AO\_UNABLE\_OPEN\_FILE**

Unable to open file.

Filename:%t%4

<b>Event number</b>	904
<b>Event synopsis</b>	Unable to open file.
<b>Event type</b>	Error

**AO\_FILE\_OPEN**

The file is open.

Filename:%t%4

<b>Event number</b>	905
<b>Event synopsis</b>	File is open.
<b>Event type</b>	Informational

**AO\_CONNECT\_EVENTLOG**

This event is a normal event and no action has to be taken.

The program is started with the following command:

%4

<b>Event number</b>	1000
<b>Event synopsis</b>	Program connect to and initialize the event log.
<b>Event type</b>	Informational

**AO\_CLOSE\_EVENTLOG**

This event is a normal event and no action has to be taken.

<b>Event number</b>	1001
<b>Event synopsis</b>	Program close event log.
<b>Event type</b>	Informational

**AO \_SUPPRESS \_REPORT**

The previous event is reported more than 10 (MAX\_ERROR) times. The report of the event will be suppressed automatically. All events will be suppressed until another event is reported.  
 Suppressed event: %t%4

<b>Event number</b>	1002
<b>Event synopsis</b>	Automatic suppress of event reporting.
<b>Event type</b>	Warning

**AO \_REPORT \_ALL \_EVENT**

Finished the automatic suppression of event reporting.

<b>Event number</b>	1003
<b>Event synopsis</b>	Finished automatic suppression of event reporting.
<b>Event type</b>	Warning

**AO \_THREAD \_START**

A thread is started. This is only a debug message, no further action required.

<b>Event number</b>	1004
<b>Event synopsis</b>	Thread started.
<b>Event type</b>	Informational

**AO \_THREAD \_STOP**

A thread is stopped. This is only a debug messages, no further action required.

<b>Event number</b>	1005
<b>Event synopsis</b>	Thread stopped.
<b>Event type</b>	Informational

**AO \_ERROR \_THREAD \_CREATE**

The server is unable to start a new thread. The last request will run in single threaded mode.  
 Error messages: %4

<b>Event number</b>	1006
<b>Event synopsis</b>	Unable to create a new thread.
<b>Event type</b>	Error

**AO \_DRIVER \_LOAD \_SUCCESSFUL**

The driver <%4> is loaded successful.

<b>Event number</b>	1100
<b>Event synopsis</b>	The driver is loaded successful.
<b>Event type</b>	Informational

**AO \_EVENT**

This is just a trace message. Refer to the previously reported event.

<b>Event number</b>	1500
<b>Event synopsis</b>	Trace to error origin.
<b>Event type</b>	Informational

**AO\_UNKNOWN\_UNICODE\_CHAR**

The conversion expects unicode characters with the high byte to be zero. A unicode character has been found with another high byte code.

Unicode character: %t%4

<b>Event number</b>	2500
<b>Event synopsis</b>	Wrong unicode character.
<b>Event type</b>	Warning

**AO\_UNKNOWN\_KEYWORD\_VALUE**

The value of the keyword in the INI-File is unknown. The default value of the keyword is used.

The unknown value is: %4

<b>Event number</b>	2501
<b>Event synopsis</b>	Unknown keyword value.
<b>Event type</b>	Warning

**AO\_NO\_OBJECT**

No object defined. NULL-pointer as input parameter.

Expected object type: %t%4

<b>Event number</b>	3000
<b>Event synopsis</b>	No object defined.
<b>Event type</b>	Error

**AO\_WRONG\_OBJECT**

Type of expected object and input object: %t%4

<b>Event number</b>	3001
<b>Event synopsis</b>	Wrong object type.
<b>Event type</b>	Error

**AO\_UNKNOWN\_DATATYPE**

Type of data is unknown.

unknown Type: %t%4

<b>Event number</b>	3002
<b>Event synopsis</b>	Unknown data type.
<b>Event type</b>	Error

**AO\_NO\_ARRAY**

The object requires an array for the local storage of the elements or objects. There is no array defined in the object.

Name of object: %t%4

<b>Event number</b>	3003
<b>Event synopsis</b>	No array found .
<b>Event type</b>	Error

**AO\_ARRAY\_ERROR**

Some error occurred in the array utility.

Name of object: %t%4

<b>Event number</b>	3004
<b>Event synopsis</b>	Error occurred in the array utility.
<b>Event type</b>	Error



**AO\_NO\_VALUES\_ARRAY**

The object requires an array for the local storage of the elements or objects. There are no values in the array stored in this object.

Name of object: %t%4

<b>Event number</b>	3005
<b>Event synopsis</b>	No values in array.
<b>Event type</b>	Error

**AO\_NO\_COPY\_FUNCTION**

The object needs a copy function. There is no copy function defined in the object.

Name of object: %t%4

<b>Event number</b>	3006
<b>Event synopsis</b>	No array copy function defined.
<b>Event type</b>	Error

**AO\_NO\_VALUE**

The object requires a value. There is no value defined in this object.

Name of object: %t%4

<b>Event number</b>	3007
<b>Event synopsis</b>	No value found.
<b>Event type</b>	Error

**AO\_IS\_READONLY**

The object is readonly. It is not allowed to modify this object.

Name of object: %t%4

<b>Event number</b>	3008
<b>Event synopsis</b>	Object is readonly.
<b>Event type</b>	Warning

**AO\_NO\_NAME**

The object has no name.

The object without a name has following description: %4

<b>Event number</b>	3009
<b>Event synopsis</b>	Object has no name.
<b>Event type</b>	Error

**AO\_NO\_PUT\_OBJECT**

The object has no put object function.

Name of object: %t%4

<b>Event number</b>	3010
<b>Event synopsis</b>	No put object function available.
<b>Event type</b>	Error

**AO\_NO\_DISCONNECT**

The object has no disconnect function.

Name of object: %t%4

<b>Event number</b>	3011
<b>Event synopsis</b>	No disconnect function available.
<b>Event type</b>	Error

**AO\_NO\_OPENENV**

The object has no open environment function.

Name of object:%t%4

<b>Event number</b>	3013
<b>Event synopsis</b>	No open environment function available.
<b>Event type</b>	Error

#### AO\_NO\_GET\_OBJECT

The object has no get object function.

Name of object:%t%4

<b>Event number</b>	3014
<b>Event synopsis</b>	No get object function available.
<b>Event type</b>	Error

#### AO\_NO\_DRIVERNAME

Could not determine the name of the driver from the driver directory.

Directory:%t%4

<b>Event number</b>	3015
<b>Event synopsis</b>	Unable to determine drivename.
<b>Event type</b>	Error

#### AO\_NO\_SHAREOBJECT

Could not determine the name of the shared object of the driver.

Driver:%t%4

<b>Event number</b>	3016
<b>Event synopsis</b>	Unable to create driver shared object name.
<b>Event type</b>	Error

#### AO\_LOAD\_DRIVER

Look at the next error event for more detailed system information.

Driver:%t%4

<b>Event number</b>	3017
<b>Event synopsis</b>	Could not load driver.
<b>Event type</b>	Error

#### AO\_ERROR\_MSG

The system error message of the previous error event is:

%4

<b>Event number</b>	3018
<b>Event synopsis</b>	System error message.
<b>Event type</b>	Error

#### AO\_NO\_VALUE\_SIZE

The size of the value is undefined.

Value type:%t%4

<b>Event number</b>	3019
<b>Event synopsis</b>	Size of value undefined.
<b>Event type</b>	Error

#### AO\_OUT\_OF\_RANGE

The index must be in the range from 0 to max. The max index value is not included. (0 <= index < max)

Used index and max index value:%t%4

<b>Event number</b>	3020
<b>Event synopsis</b>	Index out of range.
<b>Event type</b>	Error

**AO\_NO\_DRIVER**

The service does not have a driver.

<b>Event number</b>	3021
<b>Event synopsis</b>	No driver in service available.
<b>Event type</b>	Error

**AO\_NO\_ENVIRONMENT**

The service does not have an environment.

<b>Event number</b>	3022
<b>Event synopsis</b>	No environment in service available.
<b>Event type</b>	Error

**AO\_UNABLE\_LOAD\_DRIVER**

Unable to load the driver for the service connect. The name or directory of the driver are possibly wrong.

Name of driver: %t%4

<b>Event number</b>	3023
<b>Event synopsis</b>	Unable to load driver.
<b>Event type</b>	Error

**AO\_IS\_SAME\_POINTER**

The pointer of the old and new value are identical. The value will not be set. Set the new value would cause to dirty memory because the function frees the old pointer and this will destroy the new value.

<b>Event number</b>	3025
<b>Event synopsis</b>	Identical pointers found.
<b>Event type</b>	Warning

**AO\_NO\_BASEREF**

The are no base references available in the base element.

<b>Event number</b>	3026
<b>Event synopsis</b>	No base reference found.
<b>Event type</b>	Error

**AO\_NO\_BASEATTR**

The are no base attributes available in the base element.

<b>Event number</b>	3027
<b>Event synopsis</b>	No base attributes found.
<b>Event type</b>	Error

**AO\_NO\_ATTROBJ**

There is no attribute object available in element.

<b>Event number</b>	3028
<b>Event synopsis</b>	No attribute object found.
<b>Event type</b>	Error

**AO\_NO\_REFOBJECT**

There is no reference object available in element.

<b>Event number</b>	3029
<b>Event synopsis</b>	No reference object.
<b>Event type</b>	Error

**AO\_NO\_APPLELEM**

There is no application element object available in the instance element.

<b>Event number</b>	3030
<b>Event synopsis</b>	No application element.
<b>Event type</b>	Error

**AO\_ONLY\_ONE\_ENV**

Only one environment application element of this type is allowed. There is already an application element of the same type in the application structure.

<b>Event number</b>	3031
<b>Event synopsis</b>	Only one environment application element allowed.
<b>Event type</b>	Error

**AO\_NO\_BASEELEM**

The object has no base element. No base element found.

The object which was searched for the base element is:

%4

<b>Event number</b>	3032
<b>Event synopsis</b>	No base element found.
<b>Event type</b>	Error

**AO\_WRONG\_BA\_DATATYPE**

The base attribute has a wrong datatype name.

The wrong data type name is: %t%4

Allowed names are:

%tUnknown

%tReal4

%tReal8

%tInt2

%tInt4

%tInt8

%tBoolean

%tByte

%tString

%tWideString

%tDate

%tByteStream

<b>Event number</b>	3033
<b>Event synopsis</b>	Wrong base attribute datatype.
<b>Event type</b>	Error

**AO\_NO\_SERVICE**

There is no service available in the ASAM-C object.

<b>Event number</b>	3034
<b>Event synopsis</b>	No service found.
<b>Event type</b>	Error

**AO\_NO\_SRV\_FOUND**

There was no matching service found in the ASAM-C object.

Search for service:%t%4

<b>Event number</b>	3035
<b>Event synopsis</b>	No matching service found.
<b>Event type</b>	Error

**AO\_NO\_DESTRUCTION**

The number of calls of the function `Cac_loadeddrivers` with creation flag and the destruction flag do not match. There are more calls with the destruction flag than calls with the creation flag. Do not destruct drivers which are not created.

<b>Event number</b>	3036
<b>Event synopsis</b>	More destruction calls than creation calls.
<b>Event type</b>	Error

**AO\_UNABLE\_WRITE\_FILE**

Unable to write to file.

Filename:%t%4

<b>Event number</b>	3038
<b>Event synopsis</b>	Unable to write to file.
<b>Event type</b>	Error

**AO\_NO\_INIT\_FILE**

No initialization file loaded.

Filename:%t%4

<b>Event number</b>	3039
<b>Event synopsis</b>	No initialization file loaded.
<b>Event type</b>	Error

**AO\_DIM\_ALREADY\_SET**

The dimension of the matrix is already set. You cannot modify the dimension of a matrix.

If you would like to change the dimension of a matrix, create a new matrix with the new dimension and copy the elements of the old matrix into the new matrix. Then you can delete the old matrix.

Name of matrix:%t%4

<b>Event number</b>	3040
<b>Event synopsis</b>	Dimension already set.
<b>Event type</b>	Error

**AO\_NO\_MATRIX**

The object requires a Value Matrix. There is no matrix defined in this object.

Name of object:%t%4

<b>Event number</b>	3041
<b>Event synopsis</b>	No Value Matrix found.
<b>Event type</b>	Error

**AO\_NO\_SEQUENCE**

The object requires a sequence. There is no sequence defined in this LocalColumn object. Some previous error must have occurred and was ignored afterwards.

Name of LocalColumn object:%t%4

<b>Event number</b>	3042
<b>Event synopsis</b>	No sequence in LocalColumn.
<b>Event type</b>	Error

**AO\_NO\_COLLECTION**

The object requires a collection. There is no collection defined in this submatrix object. Some previous error has occurred and afterwards ignored.

Name of the sub matrix object: %t%4

<b>Event number</b>	3043
<b>Event synopsis</b>	No collection in submatrix.
<b>Event type</b>	Error

**AO\_WRONG\_NUMBER\_IN\_COLUMN**

The number of elements in a LocalColumn must be the same for all LocalColumns of the submatrix. The number of elements in the new LocalColumn differs from the number of elements in the previous stored columns.

Name of the submatrix object: %t%4

<b>Event number</b>	3044
<b>Event synopsis</b>	Wrong number of elements in LocalColumn.
<b>Event type</b>	Error

**AO\_NO\_SUBMAT**

The object requires a submatrix. There is no submatrix defined in this object.

The element where the submatrix was expected: %4

<b>Event number</b>	3045
<b>Event synopsis</b>	No submatrix available.
<b>Event type</b>	Error

**AO\_NO\_MEA\_BASEELEM**

The type of the base element is not measurement. The instance element can only contain submatrixes when the type of the instance element is measurement.

%4

<b>Event number</b>	3046
<b>Event synopsis</b>	Base element is not measurement.
<b>Event type</b>	Warning

**AO\_NO\_ID**

The application element has no attribute with a base attribute 'Id' or the instance element has no value for the attribute derived from the base attribute 'Id'.

Element with no ID is: %t%4

<b>Event number</b>	3047
<b>Event synopsis</b>	No base element ID found.
<b>Event type</b>	Error

**AO\_NO\_INSTELEM**

There is no instance element available.

No instance for: %t%4

<b>Event number</b>	3048
<b>Event synopsis</b>	No instance element available.
<b>Event type</b>	Informational

**AO\_NO\_REFERENCE\_FOUND**

The instance element has a reference to another instance. The referenced instance was not found in the instance collection of the target application element. Instance of application element with reference position and referenced ID:

%t%4

<b>Event number</b>	3049
<b>Event synopsis</b>	No reference found.
<b>Event type</b>	Error

**AO\_ALREADY\_IN\_LIST**

The object is already in the list. The object is not inserted into the list.

<b>Event number</b>	3050
<b>Event synopsis</b>	Object already in list.
<b>Event type</b>	Informational

**AO\_WRONG\_DATE**

Format of date or time is wrong. The ASAM format is ČYYYYMMDDŠ or ČYYYYMMDDHHMMSSŠ.

The date or time is: %t%4

<b>Event number</b>	3051
<b>Event synopsis</b>	Wrong date format.
<b>Event type</b>	Error

**AO\_NO\_LC\_FOUND**

The requested LocalColumn was not found.

Search for: %t%4

<b>Event number</b>	3053
<b>Event synopsis</b>	No LocalColumn found.
<b>Event type</b>	Error

**AO\_NO\_TARGET\_FOUND**

The requested target application element isnŠt found. There is a reference in the application model to an application element which is unknown.

Search for application element: %t%4

<b>Event number</b>	3054
<b>Event synopsis</b>	No target application element found.
<b>Event type</b>	Warning

**AO\_UNABLE\_INIT\_SOCKET**

Unable to initialize the Windows socket DLL.

%4

<b>Event number</b>	3055
<b>Event synopsis</b>	Unable to initialize windows socket DLL.
<b>Event type</b>	Error

**AO\_WRONG\_ASAMPATH**

The specified ASAM ODS path is wrong, no instance is found for the specified ASAM path.

Specified ASAM ODS path: %t%4

<b>Event number</b>	3056
<b>Event synopsis</b>	Wrong ASAM ODS path.
<b>Event type</b>	Warning

**AO\_NO\_UNIQUE\_ASAMPATH**

The specified ASAM ODS path is not for a unique instance. The data in the server is not ASAM ODS conform.

Specified ASAM ODS path: %t%4

<b>Event number</b>	3057
<b>Event synopsis</b>	ASAM ODS path not unique.
<b>Event type</b>	Warning

**AO\_NO\_DATATYPE**

The instance of the measurement quantity has no attribute derived from the base attribute ŨDatatype-. The attribute ŨDatatype- is required for the ASAM ODS servers to store the Datatype of the LocalColumns. The LocalColumn cannot be saved or restored from the data storage.

Name of the instance of the measurement quantity:%t%4

The convert file might be wrong or not activated, see also the INI-File variable 'CONVERT-FILE'.

<b>Event number</b>	3058
<b>Event synopsis</b>	Measurement quantity has no datatype.
<b>Event type</b>	Error

**AO\_NO\_LC\_FOR\_MEQ**

The instance of the measurement quantity has no corresponding LocalColumn in the database table Ũsvcal-. Normally all measurement quantities have a corresponding LocalColumn. Measurement quantities are found in the database with no LocalColumns.

ID of the instance of the measurement quantity:%t%4

<b>Event number</b>	3059
<b>Event synopsis</b>	Measurement quantity has no corresponding LocalColumn.
<b>Event type</b>	Warning

**AO\_NOTHING\_TO\_SET**

A set request is given, but the function could not recognize the number of bytes to set.

Possible reason:

The INI-File variable STR\_VALBLOBLLEN is not set at the service for the database storages.

<b>Event number</b>	3060
<b>Event synopsis</b>	Nothing to set.
<b>Event type</b>	Error

**AO\_WRONG\_ENVIRONMENT**

The ID of the requested environment is wrong.

<b>Event number</b>	3061
<b>Event synopsis</b>	Wrong environment ID.
<b>Event type</b>	Error

**AO\_NO\_RELATION\_FOUND**

There is no relation between the two given application elements.

The two application elements are:%t%4.

<b>Event number</b>	3062
<b>Event synopsis</b>	No relation between application elements.
<b>Event type</b>	Error

**AO\_INVALID\_REQUEST**

The request of the function has invalid parameter.

Detail information about the invalid parameter is:

%4

<b>Event number</b>	3063
<b>Event synopsis</b>	Invalid request.
<b>Event type</b>	Error

**AO\_WRONG\_DATATYPE**

The data type does not match the data type of the object or the structure.



Detailed information: %4

<b>Event number</b>	3064
<b>Event synopsis</b>	Wrong data type.
<b>Event type</b>	Error

#### AO\_ORPHAN\_APPLICATION\_ELEMENTS

After creating the application model hierarchy there are elements left from the application model. When the model is correct and complete there should be no orphan elements left.

Number of elements left over: %4

<b>Event number</b>	3065
<b>Event synopsis</b>	Orphan application elements detected.
<b>Event type</b>	Warning

#### AO\_NO\_FATHER

The element has no father. If the element is an application element there is no relation in the application element to a father application element. Please check and correct the application model. If the element is an instance element there is no predecessor found for the given instance element.

The element: %t %4

<b>Event number</b>	3066
<b>Event synopsis</b>	Application element has no father.
<b>Event type</b>	Warning

#### AO\_NO\_UNIQUE\_INSTANCE

There is no unique instance found for the given name. The application element has more than one instance matching to the given name. No instance returned.

Name of instance and number of duplicates: %t %4

<b>Event number</b>	3067
<b>Event synopsis</b>	No unique instance found.
<b>Event type</b>	Warning

#### AO\_NO\_SUB\_BASEELEM

The type of the base element is not a submatrix. An instance of a submatrix is expected.

<b>Event number</b>	3068
<b>Event synopsis</b>	Base element is no submatrix.
<b>Event type</b>	Warning

#### AO\_NO\_LCC\_BASEELEM

The type of the base element is not a LocalColumn. An instance of a LocalColumn is expected.

<b>Event number</b>	3069
<b>Event synopsis</b>	Base element is no LocalColumn.
<b>Event type</b>	Warning

#### AO\_WRONG\_BASEELEM

A special type of element (application or instance) is requested. The type of the element is wrong.

The expected type and input type are: %4

<b>Event number</b>	3070
<b>Event synopsis</b>	Wrong element type.
<b>Event type</b>	Error

**AO \_NOT\_IN\_SAME\_STRUCTURE**

An application element is set to an application relation. The application element is not in the same application structure as the application relation. Only elements of the same structure can be set to a relation. The application relation is the connection between two elements in an application structure.

<b>Event number</b>	3071
<b>Event synopsis</b>	Relation does not belong to application structure.
<b>Event type</b>	Error

**AO \_NO\_LOCALCOLUMN**

The column has no Athos LocalColumn. Internal error or implementation error occurred. The allocation of memory failed.

<b>Event number</b>	3072
<b>Event synopsis</b>	No Athos LocalColumn.
<b>Event type</b>	Error

**AO \_NO\_COLUMN**

There is no LocalColumn defined in this object.  
The object where a LocalColumn is expected: %4

<b>Event number</b>	3073
<b>Event synopsis</b>	No LocalColumn in submatrix.
<b>Event type</b>	Error

**AO \_NO\_APPLELEMS**

The list function of the application element cannot return a list because there are no application elements stored in the environment. This can happen when a driver opens a new data storage.

Name of the environment: %4

<b>Event number</b>	3076
<b>Event synopsis</b>	No application element in application structure.
<b>Event type</b>	Warning

**AO \_NO\_SMATLINK**

The object has no submatrix links. The requested operation cannot be performed.

<b>Event number</b>	3077
<b>Event synopsis</b>	No submatrix link.
<b>Event type</b>	Error

**AO \_MORE\_INDEP\_CHANNEL**

To build the valuematrix at the measurement there are no submatlinks defined and there are more than one submatrixes. With the automatic build function of the valuematrix exactly one independent channel is expected. These independent channels must be in all the submatrixes of the measurement. There are none or more than one independent channels found, so the valuematrix cannot be built automatically. Please use the submat links to build a valuematrix. The instance is: %4

<b>Event number</b>	3078
<b>Event synopsis</b>	More than one independent channel in submatrixes.
<b>Event type</b>	Error

**AO\_NO\_INSTANCE\_ATTRIBUTE**

It is only allowed to remove or rename an instance attribute. Attributes derived from an application attribute cannot be removed or renamed.

<b>Event number</b>	3080
<b>Event synopsis</b>	Attribute is not an instance attribute.
<b>Event type</b>	Error

**AO\_RELATED\_INST\_LEFT**

After removing an instance element there are still related instances left. Delete first the relation then try again.

<b>Event number</b>	3081
<b>Event synopsis</b>	Related instances left.
<b>Event type</b>	Error

**AO\_WRONG\_APPLELEM**

The application elements of the instance elements and the relation do not match. Try to access a relation at the instance and the relation has no connection to the application element of the instance.

<b>Event number</b>	3082
<b>Event synopsis</b>	Application elements do not match.
<b>Event type</b>	Error

**AO\_FOUND\_DIFFERENCE**

A difference has been found in a compare function. The difference is: %4

<b>Event number</b>	3083
<b>Event synopsis</b>	Difference found.
<b>Event type</b>	Error

**AO\_NO\_TARGET**

A reference was found without a target element. The name of the reference is: %4

<b>Event number</b>	3084
<b>Event synopsis</b>	Reference without target element.
<b>Event type</b>	Warning

**AO\_UNKNOWN\_RELATIONSHIP**

The relationship in the relation is unknown.

<b>Event number</b>	3085
<b>Event synopsis</b>	Unknown relationship.
<b>Event type</b>	Error

**AO\_NO\_INVERSE\_REFERENCE**

There is no inverse reference. The inverse reference is built from the AO\_BASE.HTM. After reading the base model from the file, the references are checked and for each reference the inverse reference is searched.

An error occurred reading the AO\_BASE.HTM because an inverse reference was not found. The name of the base reference is: %4

<b>Event number</b>	3086
<b>Event synopsis</b>	No inverse reference.
<b>Event type</b>	Error

**AO\_TO\_MUCH\_FATHER**

The element has too many fathers. There was more than one father found for the element, please check the consistency of the data storages.

The element: %t%4

<b>Event number</b>	3087
<b>Event synopsis</b>	Application element has too many fathers.
<b>Event type</b>	Warning

**AO\_NO\_SPACE\_LEFT**

There is no space left. All reserved space is used. Please send this messages to the development team.

The extended space is:

%4

<b>Event number</b>	3088
<b>Event synopsis</b>	No space left.
<b>Event type</b>	Error

**AO\_NO\_PASSWORD**

The user did not enter the password.

Name of the user: %4

<b>Event number</b>	3089
<b>Event synopsis</b>	Username without password.
<b>Event type</b>	Error

**AO\_WRONG\_PASSWORD**

The user did not enter the correct password.

Name of the user: <%4>

<b>Event number</b>	3090
<b>Event synopsis</b>	Wrong password.
<b>Event type</b>	Error

**AO\_WITHOUT\_PASSWORD**

The base attribute 'password' was not found at an application element of AoUser. So there is no password check. If a password check is required define an application attribute derived from the base attribute "password".

<b>Event number</b>	3091
<b>Event synopsis</b>	No password in data storage.
<b>Event type</b>	Informational

**AO\_UNKNOWN\_NUMBER\_OF\_VALUES**

The number of values is unknown. There is no definition for the number of values. There might be another LocalColumn which defined the number of values for the submatrix.

Name of the LocalColumn: <%4>

<b>Event number</b>	3092
<b>Event synopsis</b>	Unknown number of values.
<b>Event type</b>	Informational

**AO\_TO\_MUCH\_ELEMENTS**

There are too many elements found. ASAM ODS has defined that only one element of the given base type may be derived. The system expects exactly one element and got another element of the same base type.

The wrong base element is: <%4>

<b>Event number</b>	3093
<b>Event synopsis</b>	Too many elements found.
<b>Event type</b>	Error

**AO\_WRONG\_USERNAME**

The user name is not in the server.

Name of the user: <%4>

<b>Event number</b>	3094
<b>Event synopsis</b>	Unknown user name.
<b>Event type</b>	Error

**AO\_NOT\_IN\_USERGROUP**

The user is not in a usergroup, no access is allowed.

Name of the user: <%4>

<b>Event number</b>	3095
<b>Event synopsis</b>	User not in usergroup.
<b>Event type</b>	Error

**AO\_UNSUPPORTED\_MODE**

The given mode is not supported by the program. Look for the filename which part of the software does not support, in the given mode.

The mode is: <%4>

<b>Event number</b>	3096
<b>Event synopsis</b>	Unsupported mode.
<b>Event type</b>	Error

**AO\_WRONG\_NAME**

The given name is not a name which is expected.

The given name is: <%4>.

<b>Event number</b>	3097
<b>Event synopsis</b>	Wrong name.
<b>Event type</b>	Error

**AO\_DIFFERENT\_ENV\_NAMES**

The names of the environment given in the ASAM path are different. This difference will be ignored. It is allowed to get an element from an other environment outside the current environment.

%4

<b>Event number</b>	3098
<b>Event synopsis</b>	Different environment names.
<b>Event type</b>	Informational

**AO\_OLD\_BASE\_MODEL**

The base model file <%4> is too old. Please provide a current version.

<b>Event number</b>	3099
<b>Event synopsis</b>	Base model out dated.
<b>Event type</b>	Error

**AO\_NO\_STRUCTURE**

No structure defined. NULL-pointer as input parameter.

Expected structure type:%t%4

<b>Event number</b>	3100
<b>Event synopsis</b>	No structure defined.
<b>Event type</b>	Error

**AO\_WRONG\_STRUCTURE**

Type of expected structure and input structure: %t%4

<b>Event number</b>	3101
<b>Event synopsis</b>	Wrong structure type.
<b>Event type</b>	Error

**AO\_WRONG\_LENGTH**

The length of the value of the structure does not correspond to the length expected by the function.

Details: %4

<b>Event number</b>	3102
<b>Event synopsis</b>	Wrong length.
<b>Event type</b>	Error

**AO\_WRONG\_CONFIG**

The configuration is wrong. The variable setting in the INI-File does not match the data from storage. Please check the settings of the INI-File.

Wrong variable: %4

<b>Event number</b>	3103
<b>Event synopsis</b>	Wrong configuration.
<b>Event type</b>	Error

**AO\_WIN32\_ERROR**

An error has occurred in a Win32 system function. The Win32 error message is:

%4

<b>Event number</b>	3104
<b>Event synopsis</b>	Error in Win32 system.
<b>Event type</b>	Error

**AO\_SVCTABLE\_ERROR**

The content of the svc-tables of the physical storage is wrong. There are tables or columns defined in the tables svcnt or svcattr which do not exist in the database.

Detailed information: %4

<b>Event number</b>	3105
<b>Event synopsis</b>	Error in the svc-tables found.
<b>Event type</b>	Error

**AO\_BASE\_ATTRIBUTE\_REQUIRED**

The given base attribute is required for the program. The base attribute isn't available on the given element.

%4

<b>Event number</b>	3106
<b>Event synopsis</b>	A base attribute is required.
<b>Event type</b>	Error

**AO\_ATTRIBUTE\_AUTO\_GENERATED**

The attribute is automatically generated. There is no specification of the attribute at the storage, the attribute is required and automatically generated by the software. The software generates the attribute automatically. The name of the automatic generated attribute and the element is given below.

%4

<b>Event number</b>	3107
<b>Event synopsis</b>	The attribute is automatically generated.
<b>Event type</b>	Informational

**AO\_NO\_INV\_REFERENCE**

There is no inverse reference in the application model. This is only a message and has no influence on the server. The inverse reference will be generated automatically by the software.  
%4

<b>Event number</b>	3108
<b>Event synopsis</b>	There is no inverse reference.
<b>Event type</b>	Informational

**AO\_NO\_BASE\_REFERENCE**

The Athos Runtime System search for a base reference between the different elements. If an application reference is found and no base reference is given. Athos Runtime System tries to find a corresponding base reference. There are a lot of application models which do not tell the software the correct base reference for each application reference.

However every application reference does not have a base reference, because in the ASAM ODS base model there is no base reference between each pair of elements.

This is only a messages and has no influence of the functionality of the software. You can switch off the search for the base reference with the INI-File variable SEARCH\_FOR\_-BASE\_REF.

<b>Event number</b>	3109
<b>Event synopsis</b>	There is no base reference between the elements.
<b>Event type</b>	Informational

**AO\_DEADLOCK\_DETECT**

There is a deadlock found, the automatic system tries to solve the deadlock.

The deadlock is found between: %4

For more information look in the log-file.

<b>Event number</b>	3110
<b>Event synopsis</b>	Deadlock detected.
<b>Event type</b>	Warning

**AO\_WRONG\_ATTRIBUTE**

A special attributes is expected for this function. The function is used with another kind of attribute.

The expected special attribute is: %4

<b>Event number</b>	3111
<b>Event synopsis</b>	Wrong attribute.
<b>Event type</b>	Warning

**AO\_DIVISION\_BY\_ZERO**

A division by zero is detected.

Detected at %4

<b>Event number</b>	3112
<b>Event synopsis</b>	Division by zero.
<b>Event type</b>	Warning

**AO\_NULL\_POINTER**

NULL-pointer found in a wrapper class.

Details: %4

Expected object type:%t%4

<b>Event number</b>	3200
<b>Event synopsis</b>	Null pointer found.
<b>Event type</b>	Error

**AO\_WRONG\_FILETYPE**

The type of the file is wrong. There are several checks available to check the type of a file. One of the checks failed.

The failed check is: %4

<b>Event number</b>	3300
<b>Event synopsis</b>	Wrong file type.
<b>Event type</b>	Error

**AO\_NO\_BASEELEMENT**

Checking the application structure the following application element has no base element. Every application elements needs a base element. If the application element is of no specific ASAM ODS base element type, at least the base element 'AoAny' must be used.

The application element without base element is: %4

<b>Event number</b>	3500
<b>Event synopsis</b>	Application element has no base element.
<b>Event type</b>	Warning

**AO\_WRONG\_BASEATTR**

Checking the application structure the following application element has an attribute which has a base attribute type which does not match one of the base attributes of the base element from the application element.

%4

<b>Event number</b>	3501
<b>Event synopsis</b>	Application attribute of wrong base attribute type.
<b>Event type</b>	Warning

**AO\_NO\_TIMESTAMP**

The LocalColumn has no timetsamp. Something went wrong within the software.

Please check the calling sequence of the software.

The name of the LocalColumn is: %4

<b>Event number</b>	3600
<b>Event synopsis</b>	Object has no timestamp.
<b>Event type</b>	Warning

**AOP\_UNEXPECTED\_STATE**

Protocol level function returned unexpected result state. The reason may be a severe problem in the protocol level server or a wrong version of the server.

%4

<b>Event number</b>	4000
<b>Event synopsis</b>	Protocol level function returned unexpected result state.
<b>Event type</b>	Error

**AOP\_RETVAL\_ZERO**

Protocol level function returned a zero. This error is caused by a programming error in the protocol level. Normally the server returns at least some error state or information about what happened. If this error is reproduceable please inform the developers.

The probable reason is that there is no authorization for the user / computer to use rpc. The check of the authorization in the rpc-library is not implemented for all the operating system.

<b>Event number</b>	4001
<b>Event synopsis</b>	Protocol level function returned zero.
<b>Event type</b>	Error



**AOP\_DELETE\_NOTHING**

There was a delete request without any information what to delete. The delete request was ignored.

<b>Event number</b>	4002
<b>Event synopsis</b>	Delete request without data.
<b>Event type</b>	Error

**AOP\_DT\_MISMATCH**

Datatype mismatch in application attribute: %4

<b>Event number</b>	4003
<b>Event synopsis</b>	Datatype mismatch.
<b>Event type</b>	Warning

**AOP\_NO\_ENVIRONMENT**

The first application element received from the server is not of the type environment. The driver overwrites the unknown type of the application element to environment.

Server: %t%4

<b>Event number</b>	4004
<b>Event synopsis</b>	First application element not of type environment.
<b>Event type</b>	Warning

**AOP\_NO\_LOCALCOLUMN**

No LocalColumn received from the server. According to the received information there should be data for LocalColumn, when trying to read this data no error messages occurs and also no data is delivered.

<b>Event number</b>	4005
<b>Event synopsis</b>	No LocalColumn received from server.
<b>Event type</b>	Error

**AOP\_UNKNOWN\_DATATYPE**

The data type given from the protocol level server (2 or 3) is unknown by the driver. The attribute or LocalColumn is used within Athos with the data type "Unknown".

Retrieved datatype from the server: %4

<b>Event number</b>	4006
<b>Event synopsis</b>	Data type from protocol level unknown.
<b>Event type</b>	Warning

**AO\_FILEVERSION\_NOT\_SUPPORTED**

The file version found in the datastorage is not supported by the driver.

The driver is unable to interpret the requested file.

Found fileversion is: %4

<b>Event number</b>	4007
<b>Event synopsis</b>	File version not supported by driver.
<b>Event type</b>	Warning

**AO\_FILETYPE\_NOT\_SUPPORTED**

The type of the file found in the datastorage is not supported by the driver.

The driver is unable to interpret the requested file.

Found type of file is: %4

<b>Event number</b>	4008
<b>Event synopsis</b>	File type not supported by driver.
<b>Event type</b>	Warning

**AOP\_SVC\_ERROR**

An RPC-service error has been detected.

The message is:

%4

<b>Event number</b>	4010
<b>Event synopsis</b>	RPC-service error detected.
<b>Event type</b>	Error

**AO\_NOT\_CLOSED**

The query is opened again, but the previous query isn't closed until now. There is only one opened query allowed.

%4

<b>Event number</b>	4011
<b>Event synopsis</b>	The query isn't closed.
<b>Event type</b>	Warning

**AO\_DRIVER\_CRASHED**

Some error occurred in the driver. The driver crashed with a system exception, such as "access violation". Please check the code of the driver.

Name of driver: %t%4

<b>Event number</b>	4500
<b>Event synopsis</b>	Driver crashed.
<b>Event type</b>	Error

**AO\_UNKNOWN\_CLIENT**

The server was not able to find the control block of the current client.

The address of the client is %4.

<b>Event number</b>	5000
<b>Event synopsis</b>	Client not found.
<b>Event type</b>	Error

**AO\_NO\_CLASS**

The requested java class was not found. The class or package name is changed, see java implementation and odsapijavadef.h. The package name with the class name must be identical with the definition in the odsapijavadef.h file.

Name of the class: %t%4

Please report this error to the developers!!

<b>Event number</b>	5050
<b>Event synopsis</b>	Java class not found.
<b>Event type</b>	Error

**AO\_NO\_FIELDID**

The requested field in the java class was not found. The field is changed, see java implementation and source file. The name of the field and the signature must be identical in the class file and the C-implementation.

Name of the class and field: %t%4

Please report this error to the developers!!

<b>Event number</b>	5051
<b>Event synopsis</b>	Field in java class not found.
<b>Event type</b>	Error

**AO\_NO\_METHODID**

The requested method in the java class was found. The method is changed, see java implementation and source file. The name of the method and the signature must be identical in the class file and the C-implementation.

Name of the class and method:%t%4

Please report this error to the developers!!

<b>Event number</b>	5052
<b>Event synopsis</b>	Method in java class not found.
<b>Event type</b>	Error

**AO\_NO\_ENV\_ELEM**

Syntax error:

No environment element found in base model. There must be an environment element in base model.

Base model read from file:%t%4

<b>Event number</b>	6000
<b>Event synopsis</b>	No environment element found.
<b>Event type</b>	Error

**AO\_SYNTAX\_NAME**

Syntax error:

<AO\_NAME> without name specified.

The syntax error occurred during the load of the information from the base element definition file and created the base element hierarchy.

The syntax error in line: %4

<b>Event number</b>	6001
<b>Event synopsis</b>	<AO_NAME> without name.
<b>Event type</b>	Error

**AO\_SYNTAX\_BAN**

Syntax error:

No base attribute name specified.

The syntax error occurred during the load of the information from the base element definition file and created the base element hierarchy.

The syntax error in line: %4

<b>Event number</b>	6002
<b>Event synopsis</b>	No base attribute name.
<b>Event type</b>	Error

**AO\_SYNTAX\_BADT**

Syntax error:

No base attribute data type specified.

The syntax error occurred during the load of the information from the base element definition file and created the base element hierarchy.

The syntax error in line: %4

<b>Event number</b>	6003
<b>Event synopsis</b>	No base attribute data type.
<b>Event type</b>	Error

**AO\_SYNTAX\_BASK**

Syntax error:

The base attribute search key is unclear.

The syntax error occurred during the load of the information from the base element definition file and created the base element hierarchy.

The syntax error in line: %4

<b>Event number</b>	6004
<b>Event synopsis</b>	Base attribute search key unclear.
<b>Event type</b>	Error

#### AO\_SYNTAX\_BRFN

Syntax error:

No base reference father name specified.

The syntax error occurred during the load of the information from the base element definition file and created the base element hierarchy.

The syntax error in line: %4

<b>Event number</b>	6005
<b>Event synopsis</b>	No base reference father name specified.
<b>Event type</b>	Error

#### AO\_SYNTAX\_BRCN

Syntax error:

No base reference child name specified.

The syntax error occurred during the load of the information from the base element definition file and created the base element hierarchy.

The syntax error in line: %4

<b>Event number</b>	6006
<b>Event synopsis</b>	No base reference child name specified.
<b>Event type</b>	Error

#### AO\_SYNTAX\_BRIN

Syntax error:

No base reference informational name specified.

The syntax error occurred during the load of the information from the base element definition file and created the base element hierarchy.

The syntax error in line: %4

<b>Event number</b>	6007
<b>Event synopsis</b>	No base reference informational name specified.
<b>Event type</b>	Error

#### AO\_ORPHAN\_BASE\_ELEMENTS

After creating the base model hierarchy there are elements left from the base model. When the model is correct and complete there should be no orphan elements left.

Number of elements left over: %4

<b>Event number</b>	6010
<b>Event synopsis</b>	Orphan base elements detected.
<b>Event type</b>	Warning

#### AO\_NO\_DRIVER\_INFO

The driver information is not found. The driver information is required to connect.

The missing information: %4

<b>Event number</b>	7000
<b>Event synopsis</b>	No driver information is found.
<b>Event type</b>	Warning

**AO\_OPEN\_ENV**

The driver could not open environment on the server.

The name of the server: %4

<b>Event number</b>	7003
<b>Event synopsis</b>	Unable to open environment.
<b>Event type</b>	Warning

**AO\_ENV\_NOT\_OPEN**

The environment is not open.

<b>Event number</b>	7004
<b>Event synopsis</b>	Environment is not open.
<b>Event type</b>	Warning

**AO\_NO\_CARD**

The element has no card.

Name of the card: %4

If you get here you probably have an error in <driver>\_getApplElem. One of the application element cards has not been set. Go there and fix it.

<b>Event number</b>	7005
<b>Event synopsis</b>	No card in application element.
<b>Event type</b>	Warning

**AO\_CLOSE\_ENV**

The driver could not close the environment on the server.

The name of the server: %4

<b>Event number</b>	7006
<b>Event synopsis</b>	Error closing the environment.
<b>Event type</b>	Warning

**WINNT\_SERVICE\_CONTROL**

The following service control request from the service control manager is called.

%4

This messages is only on Windows NT.

<b>Event number</b>	7500
<b>Event synopsis</b>	Service control request.
<b>Event type</b>	Informational

**WINNT\_UNABLE\_REGISTER**

The service is unable to register in the Windows NT registry-database.

Name of the service: %4

This message is only available on Windows NT.

<b>Event number</b>	7501
<b>Event synopsis</b>	NT Service unable to register.
<b>Event type</b>	Error

**WINNT\_OPEN\_SERVICECONTROLMANAGER**

Cannot open the service control manager. The service control manager is needed for the request and start of services.

The Windows NT error is:

%4

This message is only available on Windows NT.

<b>Event number</b>	7502
<b>Event synopsis</b>	Cannot open NT service control manager.
<b>Event type</b>	Error

**WINNT\_OPEN\_SERVICE**

Cannot open the service. The service is a windows NT service. See at the <Settings> <Control panel>="" <Services> if the service is available.

%4

This message is only available on Windows NT.

<b>Event number</b>	7503
<b>Event synopsis</b>	Cannot open NT service.
<b>Event type</b>	Error

**WINNT\_START\_SERVICE\_ERROR**

Unable to start the service. The service is a windows NT service. See at the <Settings> <Control panel>="" <Services> if the service is available.

%4

This message is only available on Windows NT.

<b>Event number</b>	7504
<b>Event synopsis</b>	Unable to start NT service.
<b>Event type</b>	Error

**WINNT\_START\_SERVICE**

The service has been started. The service is a Windows NT service.

Name of the service: %4

This message is only available on Windows NT.

<b>Event number</b>	7505
<b>Event synopsis</b>	Start of NT service.
<b>Event type</b>	Informational

**WINNT\_CONTROL\_SERVICE\_ERROR**

Unable to control the service. The service is a windows NT service. See at the <Settings> <Control panel>="" <Services> if the service is available.

%4

This message is only available on Windows NT.

<b>Event number</b>	7506
<b>Event synopsis</b>	Unable to control NT service.
<b>Event type</b>	Error

**WINNT\_SERVICE\_WRONG\_STATE**

The service has not the required state. The service is a Windows NT service. The expected states are running, start pending or continue pending.

%4

Service State – for CurrentState

SERVICE\_STOPPED 0x00000001

SERVICE\_START\_PENDING 0x00000002

SERVICE\_STOP\_PENDING 0x00000003

SERVICE\_RUNNING 0x00000004

SERVICE\_CONTINUE\_PENDING 0x00000005

SERVICE\_PAUSE\_PENDING 0x00000006

SERVICE\_PAUSED 0x00000007

This message is only available on Windows NT.

<b>Event number</b>	7507
<b>Event synopsis</b>	NT Service has wrong state.
<b>Event type</b>	Warning

**WINNT\_SERVICE\_STATE**

The state of the service is:

%4

This is an information message to check the state of the service.

This message is only available on Windows NT.

<b>Event number</b>	7508
<b>Event synopsis</b>	State of the service.
<b>Event type</b>	Informational

**WINNT\_SERVICE\_STATE\_ERROR**

An error was detected during the report of the service state to the service control manager.

The error is: %4

This message does not have any influence on the functionality of the service. The service control manager is unable to get the state of the service and will cause an error.

This message is only available on Windows NT.

<b>Event number</b>	7509
<b>Event synopsis</b>	Error reporting state to NT service control manager.
<b>Event type</b>	Error

**ATF\_MISSING\_QUOTE**

Syntax error in ATF file.

The terminating quote of a %4 definition is missing.

<b>Event number</b>	8000
<b>Event synopsis</b>	Missing quote in ATF file.
<b>Event type</b>	Warning

**ATF\_TOKEN\_TOO\_LONG**

Syntax error in ATF file.

The token %4\$ is too long.

<b>Event number</b>	8001
<b>Event synopsis</b>	Token in ATF file too long.
<b>Event type</b>	Warning

**ATF\_NO\_ATF\_FILE**

Syntax error in ATF file.

The initializer %4\$ was not found in file: %4.

<b>Event number</b>	8002
<b>Event synopsis</b>	No initialize found in ATF file.
<b>Event type</b>	Warning

**ATF\_WRONG\_ATF\_VERSION**

Syntax error in ATF file.

The version string %4 in file is invalid.

<b>Event number</b>	8003
<b>Event synopsis</b>	Wrong version is found in ATF file.
<b>Event type</b>	Warning

**ATF\_NO\_TERMINATOR**

Syntax error in ATF file.

Terminator not found in %4.

<b>Event number</b>	8004
<b>Event synopsis</b>	Terminator not found.
<b>Event type</b>	Warning

**ATF\_WRONG\_TOKEN**

Syntax error in ATF file.

Token not allowed in %4.

<b>Event number</b>	8005
<b>Event synopsis</b>	Token not allowed.
<b>Event type</b>	Warning

**ATF\_MISSING\_IDENTIFIER**

A missing identifier caused a problem when generating the ATF file. The missing name has been set to UNDEFINED in the output file. This may cause problems (name collisions) when interpreting the file. Detailed description:

%4

<b>Event number</b>	8006
<b>Event synopsis</b>	Missing identifier.
<b>Event type</b>	Warning

**ATF\_ALREADY\_DEFINED**

The identifier is already defined. The first definition of the identifier is used.

The duplicate identifier is: %4

<b>Event number</b>	8007
<b>Event synopsis</b>	Identifier already defined.
<b>Event type</b>	Warning

**ATF\_SEEK\_ERROR**

The position in the file was not found.

Name of the file/URL is: %4

<b>Event number</b>	8008
<b>Event synopsis</b>	File seek error.
<b>Event type</b>	Error

**XATF\_ERROR\_FOUND**

The following error is found:

%4

<b>Event number</b>	8500
<b>Event synopsis</b>	An error is found in the ATF/XML file.
<b>Event type</b>	Error

**XATF\_ERROR\_REPORT**

The error is found at the following location:

%4

See also the error message XATF\_ERROR\_FOUND, for more details.

<b>Event number</b>	8501
<b>Event synopsis</b>	An error is found in the ATF/XML file.
<b>Event type</b>	Error

**XATF\_WARNING\_FOUND**

The following warning is found:

%4

See also the XATF\_LOGFILE.

<b>Event number</b>	8502
<b>Event synopsis</b>	A warning is found in the ATF/XML file.
<b>Event type</b>	Warning



**AO\_NO\_ENVNAME**

The driver expects an environment name. There is no environment specified in the service.  
The service information is read from the INI-File.

Name of the service: %4

<b>Event number</b>	9000
<b>Event synopsis</b>	No environment name in service.
<b>Event type</b>	Warning

**AO\_NO\_APPLELEMS\_LOAD**

The driver is not able to load the application model of the opened environment.

Name of the environment: %4

<b>Event number</b>	9002
<b>Event synopsis</b>	Unable to load application model.
<b>Event type</b>	Warning

**AO\_NO\_APPLATTRS\_LOAD**

The driver is not able to load the application attributes of an application element.

Name of the application element: %4

<b>Event number</b>	9003
<b>Event synopsis</b>	Unable to load application attributes.
<b>Event type</b>	Warning

**AO\_WRONG\_ARGUMENTS**

At least one of the function arguments is not valid. Using these arguments will cause an invalid memory access. Please check the calling function.

Name of the called function: %4

<b>Event number</b>	9004
<b>Event synopsis</b>	Invalid function argument.
<b>Event type</b>	Error

**AO\_NO\_INSTATTR\_LOAD**

The driver is not able to load the instance attributes of the following instance element.

Name of application element and ID of instance: %4

<b>Event number</b>	9005
<b>Event synopsis</b>	Unable to load instance attributes.
<b>Event type</b>	Warning

**AO\_NO\_SUBMAT\_LOAD**

The driver was not able to load the submatrixes of the following instance element.

Name of application element and ID of instance: %4

<b>Event number</b>	9006
<b>Event synopsis</b>	Unable to load submatrixes.
<b>Event type</b>	Warning

**AO\_NO\_LOCALCOLUMN\_LOAD**

The driver is not able to load the LocalColumn information of the following instance element and submatrix.

Name of application element, ID of instance and ID of submatrix: %4

<b>Event number</b>	9007
<b>Event synopsis</b>	Unable to load LocalColumns.
<b>Event type</b>	Warning

**AO\_NO\_VALUES\_LOAD**

The driver is not able to load the values of a LocalColumn of the following instance element and submatrix.

Name of application element, ID of instance, ID of submatrix and name of LocalColumn: %4

<b>Event number</b>	9008
<b>Event synopsis</b>	Unable to load values of LocalColumns.
<b>Event type</b>	Warning

**AO\_UNKNOWN\_SAVE\_MODE**

The save mode to put an object into the server is not supported by the driver.

Corrupt save mode: %4

<b>Event number</b>	9009
<b>Event synopsis</b>	Save mode not supported by driver.
<b>Event type</b>	Warning

**AO\_SQL\_ERROR\_STATE**

An error occurred within a SQL-ODBC command. The SQL state %4 has been reported.

For more detailed information see also the two other messages about the native error and the SQL error messages.

<b>Event number</b>	9050
<b>Event synopsis</b>	SQL-ODBC error detected - SQL-state.
<b>Event type</b>	Error

**AO\_SQL\_NATIVE\_ERROR**

An error occurred during a SQL-ODBC command. The following SQL-native error is reported: %4

For more detailed information see also the two other messages about the 'SQL-state' and the SQL error messages. More detailed information about the native error is given in the documentation of the database server.

<b>Event number</b>	9051
<b>Event synopsis</b>	SQL-ODBC error detected - SQL-native.
<b>Event type</b>	Error

**AO\_SQL\_ERROR\_MSG**

An error occurred during a SQL-ODBC command. The following error messages is reported.

Messages: %4

For more detail information see also the two other messages about the 'SQL-state' and the 'native error'.

<b>Event number</b>	9052
<b>Event synopsis</b>	SQL-ODBC error detected - SQL-message.
<b>Event type</b>	Error

**AO\_USE\_DATABASE**

An error occurred during the command "use database". The database is not available or database engine is not able to select a special database. For example Oracle is not able to select a database. Correct or remove the entry DATABASE in the INI-File.

Name of the special database is: %4

For more detail information see also the three messages about the 'SQL-state' the 'native error' and the 'Error message'.

<b>Event number</b>	9053
<b>Event synopsis</b>	Use Database error.
<b>Event type</b>	Error

**AO\_ERROR\_IN\_SQL**

Error in the SQL-Statement. See also the SQL-Error messages for further information.

The SQL-Statement is:

%4

<b>Event number</b>	9055
<b>Event synopsis</b>	Error in SQL-Statement.
<b>Event type</b>	Error

**AO\_SQL\_INFORMATION**

The following information was issued by the SQL database system:

%4

<b>Event number</b>	9056
<b>Event synopsis</b>	Information from SQL Subsystem.
<b>Event type</b>	Informational

**AOD\_UNABLE\_PUT\_APPLELEM**

Unable to add the application element. The application element is already in the database. The name of the application element, the name of the table or the ID are already used in the database.

Name of the application element: %4

<b>Event number</b>	9060
<b>Event synopsis</b>	Unable to add application element.
<b>Event type</b>	Error

**AOD\_UNABLE\_CREATE\_TABLE**

To store the application element in the database base a new table must be created. The creation of the table failed. See the corresponding SQL Error messages to determine the reason of the error.

The create string is: %4

<b>Event number</b>	9061
<b>Event synopsis</b>	Unable to create new database table.
<b>Event type</b>	Error

**AOD\_UNABLE\_CHANGE\_APPLELEM**

Unable to change (DELETE or REPLACE) the application element. There are still instances of the requested application element in the database. The delete and replace function on an application element are only allowed when there are no more instances derived from the application element. Please delete all the instances first and try again.

Name of the application element: %4

<b>Event number</b>	9062
<b>Event synopsis</b>	Unable to modify application element.
<b>Event type</b>	Error

**AOD\_NO\_MEQ**

There was no measurement quantity found in the application model. In the application model no application element is derived from the base element measurement quantity. The driver is unable to store the LocalColumn because the LocalColumn has a direct connection to an instance of the application element of the type measurement quantity.

<b>Event number</b>	9063
<b>Event synopsis</b>	No measurement quantity found.
<b>Event type</b>	Error

**AOD\_UNABLE\_TO\_INSERT**

An error occurred during the insert of an instance element.

The instance was inserted with the following command:

%4

<b>Event number</b>	9064
<b>Event synopsis</b>	Unable to insert instance.
<b>Event type</b>	Error

**AOD\_NO\_APPLELEM**

There is no application element of the required type available in the environment. The driver needs this application element.

The required type is: %4

<b>Event number</b>	9065
<b>Event synopsis</b>	No application element of required type is found.
<b>Event type</b>	Error

**AO\_STMT\_TO\_LONG**

The SQL-Statement is too long. The embedded SQL is built with fixed length of SQL-Statements. The fixed length is too small for the given statement.

The current length is: %4

<b>Event number</b>	9066
<b>Event synopsis</b>	SQL-Statement too long.
<b>Event type</b>	Error

**AO\_ORACLE\_ERROR\_STATEMENT**

An error occurred within an Oracle SQL.

The SQL statement was:

%4

For more detailed information see also the two other messages about the Oracle native error and the Oracle error messages.

<b>Event number</b>	9070
<b>Event synopsis</b>	An Oracle SQL-Error is detected-SQL Statement.
<b>Event type</b>	Error

**AO\_ORACLE\_NATIVE\_ERROR**

An error occurred during an Oracle SQL command. The following Oracle-native error is reported: %4

For more detailed information see also the two other messages about the 'SQL-statments' and the SQL error messages. More detailed information about the native error is given in the documentation of the database server.

<b>Event number</b>	9071
<b>Event synopsis</b>	An Oracle SQL-Error detected - SQL-native.
<b>Event type</b>	Error

**AO\_ORACLEL\_ERROR\_MSG**

An error occurred during an Oracle SQL command. The following error messages is reported. Messages: %4

For more detail information see also the two other messages about the 'SQL-state' and the 'native error'.

<b>Event number</b>	9072
<b>Event synopsis</b>	An Oracle SQL-Error detected - SQL-message.
<b>Event type</b>	Error

**AO\_NOT\_ALL\_INSTANCE\_LOADED**

The result of the query is large. There is a maximum number of result values defined. The query result is larger then this maximum.

The maximum is defined by the INI-File variable SQL\_MAX\_ROWS.

%4

<b>Event number</b>	9073
<b>Event synopsis</b>	Not all the instances are loaded.
<b>Event type</b>	Informational

**AO\_SUPERUSER\_LOGIN**

The superuser <%4> has logged into the server. The security checks are turned off for him.

<b>Event number</b>	9999
<b>Event synopsis</b>	Superuser is logged in.
<b>Event type</b>	Informational

**AOC\_WRITE\_DENY**

Write access denied. Another application has opened the environment for writing.

Name of the environment: %4

<b>Event number</b>	10000
<b>Event synopsis</b>	Write access denied.
<b>Event type</b>	Warning

**AOC\_UNKNOWN\_MODE**

The open mode is unknown.

Open mode: %4

<b>Event number</b>	10001
<b>Event synopsis</b>	Unknown open mode.
<b>Event type</b>	Warning

**P3D\_CANNOT\_LOAD\_VIEW**

Cannot load the view class %4.

<b>Event number</b>	21000
<b>Event synopsis</b>	Cannot load view class.
<b>Event type</b>	Error

**P3D\_CANNOT\_LOAD\_MODEL**

Cannot load the model class %4.

<b>Event number</b>	21001
<b>Event synopsis</b>	Cannot load model class.
<b>Event type</b>	Error

**P3D\_CANNOT\_LOAD\_CONTROL**

Cannot load the control class %4.

<b>Event number</b>	21002
<b>Event synopsis</b>	Cannot load the control class.
<b>Event type</b>	Error

**P3D\_CANNOT\_UPDATE\_VIEW**

Cannot load and update the view class. For details see an error message before.

<b>Event number</b>	21003
<b>Event synopsis</b>	Cannot update view.
<b>Event type</b>	Error

**P3D\_CANNOT\_UPDATE\_MODEL**

Cannot load and update the model class. For details see an error message before.

<b>Event number</b>	21004
<b>Event synopsis</b>	Cannot update model.
<b>Event type</b>	Error

**P3D\_CANNOT\_UPDATE\_CONTROL**

Cannot load and update the control class. For details see an error message before.

<b>Event number</b>	21005
<b>Event synopsis</b>	Cannot update control.
<b>Event type</b>	Error

**P3D\_COMPONENT\_IS\_NOT\_REGISTERED**

The component is already unregistered.

<b>Event number</b>	21006
<b>Event synopsis</b>	Component not registered.
<b>Event type</b>	Warning

**P3D\_NO\_PARENT\_NODE**

Capability not set for the %4 property.

<b>Event number</b>	21050
<b>Event synopsis</b>	Capability not set.
<b>Event type</b>	Warning

**P3D\_ILLEGAL\_SHARING**

Illegal sharing exception occurred.

<b>Event number</b>	21051
<b>Event synopsis</b>	Illegal sharing.
<b>Event type</b>	Warning

**P3D\_CAPABILITY\_NOT\_SET**

Capability for the property %4 not set.

<b>Event number</b>	21100
<b>Event synopsis</b>	Capability not set.
<b>Event type</b>	Warning

**P3D\_COMPONENT\_ARRAY\_INDEX\_OUT\_OF\_BOUNDS**

The array index is out of bounds for the array access of the component container.

<b>Event number</b>	21150
<b>Event synopsis</b>	Component array index out of bounds.
<b>Event type</b>	Warning

**P3D\_WRONG\_AXIS\_TYPE\_VALUE**

There is no axis that matches the axis value %4. Use the predefined constants of the class P3DAxisType.

<b>Event number</b>	21200
<b>Event synopsis</b>	Wrong axis type.
<b>Event type</b>	Warning

**P3D\_CANNOT\_SET\_AXIS\_DEFAULTS**

It is not possible to set the axis defaults. For details see an error message before.

<b>Event number</b>	21201
<b>Event synopsis</b>	Cannot set axis defaults.
<b>Event type</b>	Warning

**P3D\_CANNOT\_SET\_CHANNEL\_DEFAULTS**

It is not possible to set the channel defaults. For details see an error message before.

<b>Event number</b>	21202
<b>Event synopsis</b>	Cannot set channel defaults.
<b>Event type</b>	Warning

**P3D\_CANNOT\_SET\_TEXT\_DEFAULTS**

It is not possible to set the text defaults. For details see an error message before.

<b>Event number</b>	21203
<b>Event synopsis</b>	Cannot set text defaults.
<b>Event type</b>	Warning

**P3D\_CANNOT\_SET\_LINE\_DEFAULTS**

It is not possible to set the line defaults. For details see an error message before.

<b>Event number</b>	21204
<b>Event synopsis</b>	Cannot set line defaults.
<b>Event type</b>	Warning

**P3D\_CANNOT\_SET\_PLOT\_DEFAULTS**

It isn't possible to set the plot defaults. For details see an error message before.

<b>Event number</b>	21205
<b>Event synopsis</b>	Cannot set plot defaults.
<b>Event type</b>	Warning

**P3D\_INVALID\_CHANNEL\_NAME**

The specified channel name is invalid.

<b>Event number</b>	21300
<b>Event synopsis</b>	Invalid channel name.
<b>Event type</b>	Warning

**P3D\_CANNOT\_CAST\_TO\_AXIS**

Unable to cast given object to axis.

<b>Event number</b>	21400
<b>Event synopsis</b>	Cannot cast to axis .
<b>Event type</b>	Warning

**P3D\_CANNOT\_CAST\_TO\_CHANNEL**

Unable to cast given object to channel.

<b>Event number</b>	21401
<b>Event synopsis</b>	Cannot cast to channel.
<b>Event type</b>	Warning

**FWK\_CLASS\_INSTANTIATION\_SUCCESSFUL**

Class successfully instantiated:

<b>Event number</b>	22001
<b>Event synopsis</b>	Class successfully instantiated.
<b>Event type</b>	Informational

**FWK\_SERVICE\_CONTROL\_MANAGER\_START\_SUCCESSFUL**

Service Control Manager start successful:

%4

<b>Event number</b>	22002
<b>Event synopsis</b>	Service Control Manager start successful.
<b>Event type</b>	Informational

**FWK\_ASAM\_ODS\_SERVICE\_CREATION\_SUCCESSFUL**

AoService successfully created with the following  
plugable component, service options:

%4

<b>Event number</b>	22003
<b>Event synopsis</b>	AoService successfully created.
<b>Event type</b>	Informational

**FWK\_ASAM\_ODS\_FACTORY\_CREATION\_SUCCESSFUL**

AoFactory successfully created with the following  
service name and service options:

%4

<b>Event number</b>	22004
<b>Event synopsis</b>	AoFactory successfully created.
<b>Event type</b>	Informational

**FWK\_ORB\_CREATION\_SUCCESSFUL**

Object Request Broker successfully created with the following options:

%4

<b>Event number</b>	22005
<b>Event synopsis</b>	Object Request Broker successfully created.
<b>Event type</b>	Informational

**FWK\_NAME\_SERVICE\_CREATION\_SUCCESSFUL**

Name Service successfully created with the following command:

%4

<b>Event number</b>	22006
<b>Event synopsis</b>	Name Service successfully created.
<b>Event type</b>	Informational

**FWK\_NAME\_SERVICE\_FOUND**

Name Service successfully located:

%4

<b>Event number</b>	22007
<b>Event synopsis</b>	Name Service found.
<b>Event type</b>	Informational

**FWK\_BIND\_TO\_NAME\_SERVICE\_SUCCESSFUL**

Bind to Name Service successful. ORB is running.

Name Service: %4

<b>Event number</b>	22008
<b>Event synopsis</b>	Bind to Name Service successful. ORB is running.
<b>Event type</b>	Informational



**FWK\_NAME\_SERVER\_UP**

Avalon name server successfully started.

See previous event for details.

<b>Event number</b>	22009
<b>Event synopsis</b>	Avalon name server successfully started.
<b>Event type</b>	Informational

**FWK\_NO\_ROOT\_NAMING\_CONTEXT**

Cannot resolve initial references: %4

<b>Event number</b>	22010
<b>Event synopsis</b>	No Root Naming Context.
<b>Event type</b>	Error

**FWK\_NO\_NAMING\_CONTEXT**

No Naming Context: %4

<b>Event number</b>	22011
<b>Event synopsis</b>	No Naming Context.
<b>Event type</b>	Error

**FWK\_SERVICE\_STATE\_REPORT**

Service state report:

%4

<b>Event number</b>	22050
<b>Event synopsis</b>	Service state report.
<b>Event type</b>	Informational

**FWK\_CLASS\_INSTANTIATION\_FAILED**

Class Instantiation failed:

%4

The following reasons may cause this error:

1. The classpath definition is not complete.
2. The specified class does not exist.
3. There may be an error in the constructor of the class.

<b>Event number</b>	22101
<b>Event synopsis</b>	Class instantiation failed.
<b>Event type</b>	Warning

**FWK\_CLASS\_NOT\_FOUND**

The class file was not found. The Java classpath may be incomplete or there may be a typing error in the class name. Please check the attribute "Parameter" in the following exception if the class name is the one you really want. Example of a typical class name: com.highqsoft.myappl.MyClass

%4

<b>Event number</b>	22102
<b>Event synopsis</b>	Class file not found.
<b>Event type</b>	Warning

**FWK\_CONSTRUCTOR\_NOT\_FOUND**

The requested constructor was not defined in the class.

<b>Event number</b>	22103
<b>Event synopsis</b>	Constructor not found.
<b>Event type</b>	Warning

**FWK\_DOCUMENT\_NODE\_UNKNOWN**

The document node is not available.

<b>Event number</b>	22104
<b>Event synopsis</b>	Document node unknown.
<b>Event type</b>	Warning

**FWK\_INPUT\_FAILED**

Input file not available or read error:

%4

<b>Event number</b>	22105
<b>Event synopsis</b>	Input failed.
<b>Event type</b>	Warning

**FWK\_METHOD\_INVOCATION\_FAILED**

The method produced an error.

<b>Event number</b>	22106
<b>Event synopsis</b>	Method invocation failed.
<b>Event type</b>	Warning

**FWK\_METHOD\_NOT\_FOUND**

The requested method is not available with the requested parameter(s).

<b>Event number</b>	22107
<b>Event synopsis</b>	Method not found.
<b>Event type</b>	Warning

**FWK\_OUTPUT\_FAILED**

Output file could not be opened or a write error occurred.

<b>Event number</b>	22108
<b>Event synopsis</b>	Output failed.
<b>Event type</b>	Warning

**FWK\_XML\_PARSER\_PROBLEM**

See detailed exception message.

<b>Event number</b>	22109
<b>Event synopsis</b>	XML parser error message.
<b>Event type</b>	Warning

**FWK\_UNKNOWN\_HOST**

The requested (local) host name is unknown.

<b>Event number</b>	22110
<b>Event synopsis</b>	Hostname unknown.
<b>Event type</b>	Warning

**FWK\_UNABLE\_TO\_JOIN\_INFOBUS**

The infobus could not be joined.

<b>Event number</b>	22111
<b>Event synopsis</b>	Unable to become an infobus member.
<b>Event type</b>	Warning

**FWK\_WRONG\_LISTENER\_CONTROLLER\_TYPE**

The specified listener controller has the wrong type.

<b>Event number</b>	22112
<b>Event synopsis</b>	Wrong listener controller type specified.
<b>Event type</b>	Warning

**FWK\_CANNOT\_CREATE\_DATAFLAVOR**

Cannot create the requested data flavor.

<b>Event number</b>	22113
<b>Event synopsis</b>	Cannot create DataFlavor.
<b>Event type</b>	Warning

**FWK\_ARRAY\_INDEX\_OUT\_OF\_BOUNDS**

The array index is out of bounds for the array access.

<b>Event number</b>	22114
<b>Event synopsis</b>	Array index out of bounds.
<b>Event type</b>	Warning

**FWK\_HELPSET\_NOT\_FOUND**

The HelpSet is not found.

<b>Event number</b>	22115
<b>Event synopsis</b>	HelpSet not found.
<b>Event type</b>	Warning

**FWK\_PROPERTY\_VETO**

Veto on property change for propertyname <%4>

<b>Event number</b>	22116
<b>Event synopsis</b>	Veto on property change.
<b>Event type</b>	Warning

**FWK\_IS\_ETERNAL\_AND\_ALREADY\_REGISTERED**

An eternal application has tried to instantiate twice.

<b>Event number</b>	22117
<b>Event synopsis</b>	Application is eternal and already registered.
<b>Event type</b>	Warning

**FWK\_CANNOT\_START\_FRAME**

An eternal application has tried to start a framethread.

<b>Event number</b>	22118
<b>Event synopsis</b>	Frame not started.
<b>Event type</b>	Warning

**FWK\_WRONG\_STRING\_FORMAT**

ANSI - C format string expected.%nWrong format string: <%4>.

<b>Event number</b>	22119
<b>Event synopsis</b>	Wrong format string.
<b>Event type</b>	Warning

**FWK\_PROPERTY\_CAST\_FAILED**

Property value could not be casted to requested datatype. <%4>

<b>Event number</b>	22120
<b>Event synopsis</b>	Property cast failed.
<b>Event type</b>	Warning

**FWK\_NO\_AUTOSTART**

Autostart was suppressed by the property  
noautostart = %4

<b>Event number</b>	22121
<b>Event synopsis</b>	Autostart suppressed.
<b>Event type</b>	Warning

**FWK\_LOAD\_LIBRARY\_NOT\_FOUND**

Native load library not found. Please make sure that the requested library can be found in one of the directories pointed to by the path variable of your operation system.

Further information about the native library:

%4

<b>Event number</b>	22501
<b>Event synopsis</b>	Native load library not found.
<b>Event type</b>	Error

**FWK\_SERVICE\_CONTROL\_MANAGER\_START\_FAILED**

Service Control Manager start failed:

%4

<b>Event number</b>	22502
<b>Event synopsis</b>	Service Control Manager start failed.
<b>Event type</b>	Error

**FWK\_UNABLE\_START\_VM**

The software was not able to start the java virtual machine. Please check the class path.

<b>Event number</b>	22503
<b>Event synopsis</b>	Unable to start the virtual machine.
<b>Event type</b>	Error

**FWK\_ASAM\_ODS\_SERVICE\_CREATION\_FAILED**

AoService creation failed with the following plugable component, service factory options:

%4

Service factory options are implementation dependent options which are used by the specified plugable component. For the plugable component com.highqsoft.ods.athos the supported option is for example:

INIFILE=ATHOS\_INI (the Athos default).

<b>Event number</b>	22504
<b>Event synopsis</b>	AoService creation failed.
<b>Event type</b>	Error

**FWK\_ASAM\_ODS\_FACTORY\_CREATION\_FAILED**

AoFactory creation failed with the following service name and service options:

%4

<b>Event number</b>	22505
<b>Event synopsis</b>	AoFactory creation failed.
<b>Event type</b>	Error

**FWK\_ORB\_CREATION\_FAILED**

Object Request Broker creation failed with the following options:



%4

<b>Event number</b>	22506
<b>Event synopsis</b>	Object Request Broker creation failed.
<b>Event type</b>	Error

**FWK\_NAME\_SERVICE\_CREATION\_FAILED**

Name Service creation failed with the following command:

%4

<b>Event number</b>	22507
<b>Event synopsis</b>	Name Service creation failed.
<b>Event type</b>	Error

**FWK\_NAME\_SERVICE\_NOT\_FOUND**

Name Service not found:

%4

<b>Event number</b>	22508
<b>Event synopsis</b>	Name Service not found.
<b>Event type</b>	Error

**FWK\_BIND\_TO\_NAME\_SERVICE\_FAILED**

Binding AoFactory to the following

Corba Name Service failed:

%4

<b>Event number</b>	22509
<b>Event synopsis</b>	Binding AoFactory to Corba Name Service failed.
<b>Event type</b>	Error

**FWK\_PORT\_ADDRESS\_IN\_USE**

The port address is already in use:

%4

<b>Event number</b>	22510
<b>Event synopsis</b>	The requested port address is already in use.
<b>Event type</b>	Error

**INFOBUS\_REJECTED\_JOIN**

The attempt to join the infobus was rejected.

<b>Event number</b>	23000
<b>Event synopsis</b>	Rejected infobus join.
<b>Event type</b>	Warning

**INFOBUS\_INVALID\_NAME**

The specified infobus name is invalid.

<b>Event number</b>	23001
<b>Event synopsis</b>	Invalid infobus name.
<b>Event type</b>	Warning

**INFOBUS\_MISSING\_SEPARATOR\_IN\_NAME**

The specification of the infobus name must contain @.

<b>Event number</b>	23002
<b>Event synopsis</b>	Missing @ in name.
<b>Event type</b>	Warning

**INFOBUS\_UNABLE\_TO\_LEAVE**

The consumer is unable to leave the infobus.

<b>Event number</b>	23003
<b>Event synopsis</b>	Unable to leave infobus.
<b>Event type</b>	Warning

**INFOBUS\_UNABLE\_TO\_CREATE\_DATAFLAVOR**

Unable to create the requested dataflavor.

<b>Event number</b>	23004
<b>Event synopsis</b>	Unable to create data flavor.
<b>Event type</b>	Warning

**PUMA\_INVALID\_HOSTNAME**

The hostname is null or not set.

The given hostname is: %4

<b>Event number</b>	30000
<b>Event synopsis</b>	Invalid hostname.
<b>Event type</b>	Error

**PUMA\_INVALID\_PORT**

The port is null or not set.

The given port is: %4

<b>Event number</b>	30001
<b>Event synopsis</b>	Invalid port.
<b>Event type</b>	Error

**PUMA\_NO\_SESSION\_FOUND**

No session to the PUMA engine found.

<b>Event number</b>	30002
<b>Event synopsis</b>	No session to PUMA engine.
<b>Event type</b>	Error

**PUMA\_WRONG\_MSG\_TYPE**

The message type is wrong or out of range.

The given type is: %4

<b>Event number</b>	30003
<b>Event synopsis</b>	Wrong message type.
<b>Event type</b>	Warning

**PUMA\_WRONG\_STATUS**

The status is wrong or out of range.

The given status is: %4

<b>Event number</b>	30004
<b>Event synopsis</b>	Wrong status.
<b>Event type</b>	Warning

**PUMA\_WRONG\_ERROR**

The error is wrong or out of range.

The given error is: %4

<b>Event number</b>	30005
<b>Event synopsis</b>	Wrong error level.
<b>Event type</b>	Warning

**PUMA\_WRONG\_SEVERITY**

The severity is wrong or out of range.

The given severity is: %4

<b>Event number</b>	30006
<b>Event synopsis</b>	Wrong severity level.
<b>Event type</b>	Warning

**PUMA\_WRONG\_DESTINATIONBITS**

The destinationbits are wrong or out of range.

The given destinationbits are: %4

<b>Event number</b>	30007
<b>Event synopsis</b>	Wrong destination bits.
<b>Event type</b>	Warning

**PUMA\_ENGINE\_FAILURE**

The communication between the PUMA engine and the client are wrong.

<b>Event number</b>	30008
<b>Event synopsis</b>	The PUMA engine has a problem.
<b>Event type</b>	Warning

**CONVERTER\_UNABLE\_OPEN\_FILE**

Unable to open file.

<b>Event number</b>	31000
<b>Event synopsis</b>	Unable to open file.
<b>Event type</b>	Error

**EXTERNAL\_ERROR**

%4

<b>Event number</b>	65535
<b>Event synopsis</b>	External error.
<b>Event type</b>	Error

**EXTERNAL\_INFO**

%4

<b>Event number</b>	65535
<b>Event synopsis</b>	External information.
<b>Event type</b>	Informational

**EXTERNAL\_WARNING**

%4

<b>Event number</b>	65535
<b>Event synopsis</b>	External warning.
<b>Event type</b>	Warning





# Chapter 12

## Glossary

- **Athos:** ASAM Transient **H**ighperformance **O**bject **S**torage
- **ASAM:** Association for **S**tandardisation of **A**utomation- and **M**easuring Systems
- **kernel:** The Athos Runtime System
- **URL:** Uniform **R**esource **L**ocator - eindeutige Adresse einer Ressource, vor allem im Internet, z.B. einer Webseite, einer im Internet veröffentlichten pdf-Datei
- **HTML:** HyperText Markup **L**anguage
- **ODS:** Open **D**ata **S**ervice
- **ANSI:** American National Standards Institute
- **ANSI-C:** Standard **C** that runs on most operating systems; For example ANSI C will run on multiple operating systems, including: Windows, Macintosh, UNIX, IBM Mainframes.
- **HighQSoft GmbH:** Mr. Hans Bothe, Schlossborner Weg 6b, D-61479 Glashuetten/Taunus  
FON: +49(0)6174-62915 FAX: +49(0)6174-62935 [www.highqsoft.de](http://www.highqsoft.de)
- **HighQSoft LLC:** Mr. Mark Quinsland, 1397 Salmon Falls Road, El Dorado Hills, California 95762  
FON: +1 (916) 939-7048 FAX: +1 (916) 939-7048 [www.highqsoft.com](http://www.highqsoft.com)
- **AVALON:**
- **Java:**
- **ASCOBA:**
- **ODS-API:**
- **Athos Toolkit:**
- **Win32:**
- **UNIX:**
- **ATF:** ASAM Transport **F**ormat
- **AVL3:**
- **atf13:**
- **Oracle:**

- ODBC

- 

- **Aop3Server** Asam Ods Protocol level 3 server, the ASAM ODS RPC-Interface.



# Chapter 13

## Modification Histroy

The modification history is only for the explicit textual changes. If a configuration variable or error description is added or changed, there will be no remark in this chapter. The entries in the list are sorted by theme and not by date.

**2004/02/18**

Add the modification history

**2004/07/05**

Textual revision, correcting of the english language.

**2005/11/21**

Add **Datatype of Id's in Athos Runtime System**.(p. [29](#))

**2006/03/14**

Add AthosConfig. Add **LogViewer**(p. [38](#)) Add **Configuration of the Athos Runtime System on Linux**(p. [18](#))

**2007/02/01**

Add **Control the size of the files**.(p. [35](#))

**2007/04/03**

Add setting for compiling with Microsoft Visual Studio 2005

**2008/04/10**

Extend **Logging**(p. [35](#))

**2008/10/27**

Add **Configuration of the Windows event viewer**(p. [18](#)), extend **Error reporting on Win32 system**(p. [33](#))

**2004/07/06**

Add the setting for concerto.

**2006/03/21**

Add **The Aop3Server and Multithreaded**(p. [24](#))

**2007/03/16**

Extend the section **AOP3Server and Security**(p. [20](#)). Added removal instructions for **Installing and Running the Portmapper (Microsoft Windows only)**(p. [6](#))

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