

IBM Tivoli Software



Introduction to IBM Tivoli Directory Server 6.0 – Debugging

Excerpt taken from presentation given on April 10, 2007
Explore methods to debug a failed DB2 database creation

Support Technical Exchange Web site

http://www-306.ibm.com/software/sysmgmt/products/support/supp_tech_exch.html

8/14/2007

© 2007 IBM Corporation



Basic Debugging – Failed DB creation

Failing db configuration:

We can find out why most database configurations fail by taking a trace of the failing configuration via the idscfgdb command.

```
idscfgdb -l instancename [-w dbadminpw] [-a dbadminid -t dbname -l  
dblocation [-x]] [-f configfile] [-d debuglevel] [-b outputfile] [-q] [-n]] | -v | -?
```

So again, using the previous example:

```
#ldtrc on
```

```
#idscfgdb -l nativein -a nativein -w ***** -t nativein -l /home/nativein  
-d 65535 -b /tmp/dbg.out
```



Basic Debugging – Failed DB creation

On AIX you may run into the following issue when attempting to create and configure your database:

```
# idscfgdb -l ismpinst -w ismpinst -a ismpinst -t ismpinst -l /home/ismpinst
```

```
GLPCDB037W The specified directory, '/home/ismpinst', does not have read, write, and execute permissions for the primary group 'db2admin' of directory server instance owner 'ismpinst'.
```

You have chosen to perform the following actions:

```
GLPCDB023I Database 'ismpinst' will be configured.
GLPCDB024I Database 'ismpinst' will be created at '/home/ismpinst'
```

Do you want to....

- (1) Continue with the above actions, or
- (2) Exit without making any changes:1

```
GLPCDB035I Adding database 'ismpinst' to directory server instance: 'ismpinst'.
GLPCTL017I Cataloging database instance node: 'ismpinst'.
GLPCTL018I Cataloged database instance node: 'ismpinst'.
GLPCTL008I Starting database manager for database instance: 'ismpinst'.
exec(): 0509-036 Cannot load program db2start because of the following errors:
0509-130 Symbol resolution failed for /usr/lib/libc.a[iaio_64.o] because:
0509-136 Symbol kaio_rdw64 (number 0) is not exported from
dependent module /unix.
....
```



Basic Debugging – Failed DB creation

Now we can use the ITDS support site to search for information related to these “aio” failure messages.

IBM Tivoli Directory Server

Product support

Primary support resources

Flash 18 Mar, 2007: AIX apar application

Flash 18 Mar, 2007: Must restart DB2 and ibmslapd after performing reorgchk

Flash 31 Jan, 2007: Changes to Daylight Saving Time will affect IBM Tivoli Directory Server (TDS)

[\[View all Flashes\]](#)

Solve a problem

• [Technotes](#) | [APARs](#)

Download

- IBM Tivoli Directory Server, Version 6.0.0-TIV-ITDS-FP0004
 - IBM Tivoli Directory Server, Version 6.0.0.3-TIV-ITDS-IF0002
 - IBM Tivoli Directory Server, Version 6.0.0-TIV-ITDS-FP0003
- [\[View all downloads\]](#)

Learn

- [Information center](#)
- [Support Technical Exchange](#)
- [IBM Tivoli software training](#)
- [Manuals](#) | [Whitepapers](#)
- [Redbooks](#) | [Education](#)

Search Support (this product)

Enter terms, error code or APAR #

aio

Limit results (optional):

- Solve a problem**
(Technotes, APARs)
- Download**
(Fixes, Utilities, APARs)
- Learn**
(Manuals, White Papers, etc.)

Search

- [Broad Search](#) change scope
- [Tips for searching](#)

Assistance

Basic Debugging – Failed DB creation

The results page will display all hits on your search text. If there are a lot of results you can narrow down the results by specifying additional search terms. In this example though the first search result seems most applicable. Click on the title to view the document.

Software > Tivoli >

IBM Tivoli Directory Server

Search within results for: **aio**
 Optionally, limit results by choosing one or more of the items below.

Additional search terms:

Document type:

Sort results by:

[→ New technical support search](#) [→ Advanced search](#) [→ Downloads & drivers search](#)

Product category:

1 - 3 of 3 items found*

		Modified date
[1]	IDSCXCFG and IDSCFGDB fail if Asynchronous I/O (AIO) is not set to Available. If asynchronous I/O is not enabled on your AIX system prior to attempting database configuration the idscxfg / idscfgdb utilities will fail. [More items like this found in Identity Management]	2007-03-18
[2]	IR50558: LDAPCFG AND LDAPXCFG 5.1 FAILS ON AIX 5.1 OR 5.2 WITH 0509-136 ERRORS Problem: As a result of an aix library change in AIX 5.1 and 5.2 there [More items like this found in Identity Management]	2003-03-04
[3]	Error on AIX 5.1 when running db2start Error on AIX 5.1 when running db2start [More items like this found in Identity Management]	2003-06-24



Basic Debugging – Failed DB creation

Software > Tivoli >

IDSXCFG and IDSCFGDB fail if Asynchronous I/O (AIO) is not set to Available.

Technote (FAQ)

Problem

If asynchronous I/O is not enabled on your AIX system prior to attempting database configuration the idsxcfg / idscfgdb utilities will fail.

Cause

asynchronous I/O is required to be enabled for database configuration on AIX

Solution

By default on AIX versions 5.2 and later, asynchronous I/O should be set to available by default. If for some reason asynchronous I/O is not set to available prior to attempting to configure a database the database creation will fail.

If you encounter 0509 errors as shown below during the database creation then you will need to enable asynchronous I/O in order for the database creation to complete successfully.

Technote continued on next slide



Basic Debugging – Failed DB creation

Example of Error:

```
# idscfgdb -I ismpinst -w ismpinst -a ismpinst -t ismpinst -l /home/isminst
```

```
GLPCDB037W The specified directory, '/home/isminst', does not have read, write, and execute permissions for the primary group 'db2admin' of directory server instance owner 'isminst'.
```

```
You have chosen to perform the following actions:
```

```
GLPCDB023I Database 'isminst' will be configured.  
GLPCDB024I Database 'isminst' will be created at '/home/isminst'
```

```
Do you want to....
```

- (1) Continue with the above actions, or
- (2) Exit without making any changes:1

```
GLPCDB035I Adding database 'isminst' to directory server instance:  
'isminst'.
```

```
GLPCTL017I Cataloging database instance node: 'isminst'.
```

```
GLPCTL018I Cataloged database instance node: 'isminst'.
```

```
GLPCTL008I Starting database manager for database instance: 'isminst'.
```

```
exec(): 0509-036 Cannot load program db2start because of the following errors:
```

```
0509-130 Symbol resolution failed for /usr/lib/libc.a[aio_64.o] because:
```

```
0509-136 Symbol kaio_rdw64 (number 0) is not exported from  
dependent module /unix.
```

```
0509-136 Symbol listio64 (number 1) is not exported from  
dependent module /unix.
```

```
0509-136 Symbol acancel64 (number 2) is not exported from  
dependent module /unix.
```

```
0509-136 Symbol iosuspend64 (number 3) is not exported from  
dependent module /unix.
```



Basic Debugging – Failed DB creation

The technote continues on to explain how to enable AIO (Asynchronous I/O) to successfully create database.

To view the full contents of the technote:

<http://www-1.ibm.com/support/docview.wss?uid=swg21256635>

There is also additional information regarding Asynchronous I/O in our ITDS version 6.0 Problem Determination Guide.

Once Asynchronous I/O is correctly enable the database configuration completes successfully!



Copyright and trademark information

© Copyright IBM Corporation 2000 - 2007. All rights reserved.

U.S. Government Users Restricted Rights - Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

IBM web site pages may contain other proprietary notices and copyright information which should be observed.

IBM trademarks

<http://www.ibm.com/legal/copytrade.shtml#ibm>

Fair use guidelines for use and reference of IBM trademarks

<http://www.ibm.com/legal/copytrade.shtml#fairuse>

General rules for proper reference to IBM product names

<http://www.ibm.com/legal/copytrade.shtml#general>

Special attributions

IBM, the IBM logo and DB2 are trademarks of International Business Machines Corporation in the United States, other countries, or both.

MMX, Pentium, and ProShare are trademarks of Intel Corporation in the United States, other countries, or both.

Microsoft and Windows NT are trademarks of Microsoft Corporation in the United States, other countries, or both.

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Linux is a registered trademark of Linus Torvalds in the United States, other countries, or both.

Other company, product or service names may be trademarks or service marks of others.