[**Oracle DBV** **工具** **说明**](http://blog.csdn.net/tianlesoftware/article/details/5015164)

标签： [oracle](http://www.csdn.net/tag/oracle%20/t%20_blank)[file](http://www.csdn.net/tag/file%20/t%20_blank)[header](http://www.csdn.net/tag/header%20/t%20_blank)[database](http://www.csdn.net/tag/database%20/t%20_blank)[数据库](http://www.csdn.net/tag/%e6%95%b0%e6%8d%ae%e5%ba%93%20/t%20_blank)[工具](http://www.csdn.net/tag/%e5%b7%a5%e5%85%b7%20/t%20_blank)

2009-12-16 00:35 20037人阅读 [评论](http://blog.csdn.net/tianlesoftware/article/details/5015164%20/l%20comments)(0) [收藏](NULL) [举报](http://blog.csdn.net/tianlesoftware/article/details/5015164%20/l%20report%20/o%20%BE%D9%B1%A8)

本文章已收录于：

graphic

graphic

分类：

Oracle Advanced Knowledge*（186）*

graphic

graphic

[作者同类文章](http://blog.csdn.net/tianlesoftware/article/category/706520%20/t%20_blank)X

graphic

版权声明：本文为博主原创文章，未经博主允许不得转载。

目录[(?)](http://blog.csdn.net/tianlesoftware/article/details/5015164%20/o%20%CF%B5%CD%B3%B8%F9%BE%DD%CE%C4%D5%C2%D6%D0H1%B5%BDH6%B1%EA%C7%A9%D7%D4%B6%AF%C9%FA%B3%C9%CE%C4%D5%C2%C4%BF%C2%BC)[[+]](http://blog.csdn.net/tianlesoftware/article/details/5015164%20/o%20%D5%B9%BF%AA)

[一 DBV 说明](http://blog.csdn.net/tianlesoftware/article/details/5015164%20/l%20t0)[二 dbv的命令参数](http://blog.csdn.net/tianlesoftware/article/details/5015164%20/l%20t1)[三 DBV 限制](http://blog.csdn.net/tianlesoftware/article/details/5015164%20/l%20t2)[四 DBV 示例](http://blog.csdn.net/tianlesoftware/article/details/5015164%20/l%20t3)[1 验证ASM 上的文件](http://blog.csdn.net/tianlesoftware/article/details/5015164%20/l%20t4)[2 验证普通datafile](http://blog.csdn.net/tianlesoftware/article/details/5015164%20/l%20t5)[3 DB open 状态验证指定段](http://blog.csdn.net/tianlesoftware/article/details/5015164%20/l%20t6)[4 验证数据拷贝](http://blog.csdn.net/tianlesoftware/article/details/5015164%20/l%20t7)

1. 一. DBV 说明

       DBV是一个常用的工具，OracleMOS上有一篇文章介绍DBV：[ID 35512.1]。

       dbverify工具的主要目的是为了检查数据文件的物理结构，包括数据文件是否损坏，是否存在逻辑坏块，以及数据文件中包含何种类型的数据。

DBV checks Oracledatafiles to ensure that:

（1）The datafile has a valid header

（2）Each datablock in the file has aspecial "wrapper" which identifies the block - this"wrapper" is checked for correctness

（3）DATA (TABLE) and INDEX blocks areinternally consistent

（4）From 8.1.6 onwards: That variousother block types are internally           consistent (such as rollback segmentblocks)

  The tool can be used to give some degree of confidence that a datafile is free fromcorruption. It opens files in a read only mode and so cannot change thecontents of the file being checked.

       DBVERIFY工具可以验证ONLINE或OFFLINE的数据文件。不管**[数据库](http://lib.csdn.net/base/mysql%20/o%20MySQL%D6%AA%CA%B6%BF%E2/t_blank)是否打开，都可以访问数据文件。**

注意：

       （1）对于DBVERIFY工具，高版本可以自动识别低版本数据库，比如11g的dbv访问9i的数据库，但是低版本的dbv访问高版本会报如下之类的错误：

       DBVERIFY-验证正在开始: FILE =e:/[**Oracle**](http://lib.csdn.net/base/oracle%20/o%20Oracle%D6%AA%CA%B6%BF%E2/t_blank)**/oradata/Dave/test01.dbf**

       汇入的页1 -可能是介质损坏

       （2）查看数据坏块所在数据文件号及块号可以对表进行一次全表扫描，如：

                     select count(\*) from tablename;

              如果有坏块， 在扫描的时候就会报错。

1. 二. dbv的命令参数

C:/>dbv help=y

DBVERIFY: Release 11.1.0.7.0 - Productionon 星期二 12月 15 23:35:24 2009

Copyright (c) 1982, 2007, Oracle. Allrights reserved.

关键字 说明 (默认值)

----------------------------------------------------

FILE 要验证的文件 (无)

START 起始块 (文件的第一个块)

END 结束块 (文件的最后一个块)

BLOCKSIZE 逻辑块大小 (8192)

LOGFILE 输出日志 (无)

FEEDBACK 显示进度 (0)

PARFILE 参数文件 (无)

USERID 用户名/口令 (无)

SEGMENT\_ID 段 ID (tsn.relfile.block) (无)

HIGH\_SCN 要验证的最高块 SCN (无)

(scn\_wrap.scn\_base 或 scn)

（1）FILE（File to Verify）：This is the name of the file to verify.    See"Limitations" below if your datafile name has no suffix.

（2）START（Start Block）：This is the first datablock to check in   the file.This defaults to the first block in the file and need only be  specifiedif you want to check just a portion of a given file.

（3）END（End Block）：This is the last datablock to check in the  file. Thisdefaults to the last block of  the filebut may need specifying for RAW  devices(See "Limitations" below)  BLOCKSIZE  Logical Block Size This is the database blocksize of the datafile you wish to scan. The value defaults to "2048". Thisparameter must be set to the  DB\_BLOCK\_SIZE of the datafile to be scanned.

（4）LOGFILE（Output Log）：This is the name of file to outputthe results to. The default is "NONE" and output is sent to terminal.

（5）FEEDBACK（ Display Progress）：  If set to a value above 0 (the default)   then DBVoutputs a "." for every N pages of the datafile checked. This isuseful to see that DBV is working through the ile.

（6）PARFILE（Parameter file）：Parameters can be specified in a parameterfile and PARFILE used to cause  the filecontents to be used as input parameters. The PARFILE can contain any of theabove options.

（7）HIGH\_SCN（Scn）：Highest Block SCN To Verify (scn\_wrap.scn\_base OR scn) Find theblocks exceeding the SCN. Available in version 9.2.0.6 and above.

（8）USERID （Username/Password）：If the file you are verifying isan Automatic Storage Management (ASM) file, you must supply a USERID. This isbecause DBVERIFY needs to connect to an Oracle instance to access ASM files.

（9）SEGMENT\_ID （TS#.FILE#.BLOCK#）：Specifies the segment that youwant to verify.  For more info, review [Note:139962.1](file:///C:\CSP\main\article?cmd=show%26type=NOT%26id=139962.1)

1. 三. DBV 限制

3.1 As DBV performs checks at a block levelit cannot detect problems such as INDEX versus TABLE mismatches which can bedetected by the 'ANALYZE TABLE .. VALIDATE STRUCTURE CASCADE' command.

3.2  This utility can ONLY be used against DATAfiles.  It CANNOT be used to verify redolog files or control files.

3.3 You can use DBV to verify an AutomaticStorage Management (ASM) file.

   However, the database must be opened and the option USERID has to beused

   Example : dbv file=+DG1/ORCL/datafile/system01.dbf userid=system/sys

   DBV checks the userid/password for ASM managed files, which is notpossible when database is not open.

3.4 On most releases on Unix DBV expects afilename extension.

   This means that DBV cannot be used against datafiles with no filenamesuffix, or against RAW devices. --DBV 要求datafile 必须有扩展名

   The workaround is to create a symbolic link to the raw device where thelink name MUST have an extension.

   Eg: ln -s /dev/rdsk/mydevice /tmp/mydevice.dbf

       Now use DBV against /tmp/mydevice.dbf

       --如果裸设备没有扩展名，可以创建一个link，然后在进行dbv 检查。

3.5 For RAW devices you should use the ENDparameter to avoid running off the end of the Oracle file space.

   eg: "dbv FILE=/dev/rdsk/r1.dbf END=<last\_block\_number>"

    Ifyou get the END value too high DBV can report the last page/s of the file ascorrupt as these are beyond the end of the Oracle portion of the raw device.

   You can find value for END from the V$DATAFILE view by dividing the BYTESvalue by the database block size.

   Eg: To find out the END value to use for file#=5:

       SVRMGRL> show parameter db\_block\_size

        NAME                   TYPE   VALUE

        ----------------------------------- ------- ------

        db\_block\_size              integer 2048

       SVRMGRL> select BYTES/2048 from v$datafile where FILE#=5;

        BYTES/2048

        ----------

               5120

So the command would be:

       dbvfile=/dev/rdsk/r1.dbf blocksize=2048 END=5120

--SVRMGRL 命令在oracle 10g已经取消，并且db\_block\_size 默认值也变成了8k。

3.6 DBV may not be able to scan datafileslarger than 2Gb and may report "DBV-100". This is reported in [Bug:710888](file:///C:\CSP\main\article?cmd=show%26type=BUG%26id=710888)for Unix and [Bug:1372172](file:///C:\CSP\main\article?cmd=show%26type=BUG%26id=1372172)for 8.1.6 on NT. This problem is platform and release specific so if you getDBV-100 errors check the filesize first.

3.7 DBV from 8.1.6 onwards may reportspurious errors for rollback segment     blocks if the database has been migratedfrom Oracle7. See [Bug:1359160](file:///C:\CSP\main\article?cmd=show%26type=BUG%26id=1359160)and [Note:118008.1](file:///C:\CSP\main\article?cmd=show%26type=NOT%26id=118008.1).

3.8 DBV only checks a block in isolation -it does not know if the block is part of an existing object or not.

3.9 DBV is broken on SCO Unix - see [Bug:814249](file:///C:\CSP\main\article?cmd=show%26type=BUG%26id=814249)

3.10 DBV of a lower version should not beused against a higher DB version.

1. 四. DBV 示例

1. 4.1 验证ASM 上的文件

SYS@anqing2(rac2)> select file\_name fromdba\_data\_Files;

FILE\_NAME

--------------------------------------------------------------------------------

+DATA/anqing/datafile/users.273.751548233

+DATA/anqing/datafile/sysaux01.dbf

+DATA/anqing/datafile/undotbs01.dbf

+DATA/anqing/datafile/system01.dbf

+DATA/anqing/datafile/system02.dbf

+DATA/anqing/datafile/undotbs02.dbf

+DATA/anqing/datafile/dave01.dbf

+DATA/anqing/datafile/test01.dbf

--dbv check ASM 上的文件，注意添加userid参数

[oracle@rac2 ~]$ dbvfile='+DATA/anqing/datafile/undotbs02.dbf' userid=sys/oracle

DBVERIFY: Release 10.2.0.4.0 - Productionon Tue Aug 9 21:44:36 2011

Copyright (c) 1982, 2007, Oracle.  All rights reserved.

DBVERIFY - Verification starting : FILE =+DATA/anqing/datafile/undotbs02.dbf

DBVERIFY - Verification complete

Total Pages Examined         : 64000

Total Pages Processed (Data) : 0

Total Pages Failing   (Data) : 0

Total Pages Processed (Index): 0

Total Pages Failing   (Index): 0

Total Pages Processed (Other): 32748

Total Pages Processed (Seg)  : 0

Total Pages Failing   (Seg) : 0

Total Pages Empty            : 31252

Total Pages Marked Corrupt   : 0

Total Pages Influx           : 0

Highest block SCN            : 0 (0.0)

1. 4.2 验证普通datafile

--实例没有启动的情况下进行datafile 验证

D:\app\Administrator\oradata\newccs>dbvfile=undotbs01.dbf

DBVERIFY: Release 11.2.0.1.0 - Productionon Tue Aug 9 21:52:41 2011

Copyright (c) 1982, 2009, Oracle and/or itsaffiliates.  All rights reserved.

DBVERIFY - Verification starting : FILE =D:\APP\ADMINISTRATOR\ORADATA\NEWCCS\UNDOTBS01.DBF

DBVERIFY - Verification complete

Total Pages Examined         : 64000

Total Pages Processed (Data) : 0

Total Pages Failing   (Data) : 0

Total Pages Processed (Index): 0

Total Pages Failing   (Index): 0

Total Pages Processed (Other): 35199

Total Pages Processed (Seg)  : 10

Total Pages Failing   (Seg) : 0

Total Pages Empty            : 28801

Total Pages Marked Corrupt   : 0

Total Pages Influx           : 0

Total Pages Encrypted        : 0

Highest block SCN            : 1315907818 (0.1315907818)

--这种情况下，db没有启动，要进入数据文件的存放目录后在运行该命令，不然会报找不到数据文件。

1. 4.3 DB open 状态，验证指定段

命令格式如下：

dbv USERID=username/passwordSEGMENT\_ID=tsn.relfile.block

可以通过sys\_dba\_segs表获取tablespace\_id,header\_file, header\_block三个字段，他们分别对应tsn，relfile，block.

SYS@anqing2(rac2)> select tablespace\_id,header\_file, header\_block from sys\_dba\_segs where segment\_name = 'TA';

TABLESPACE\_ID HEADER\_FILE HEADER\_BLOCK

------------- ----------- ------------

           0           1        71513

[oracle@rac2 ~]$ dbv segment\_id=0.1.71513 userid=sys/oracle

DBVERIFY: Release 10.2.0.4.0 - Productionon Tue Aug 9 21:59:32 2011

Copyright (c) 1982, 2007, Oracle.  All rights reserved.

DBV-00111: OCI failure(1913) (ORA-28009: connection as SYS should be as SYSDBA or SYSOPER

)

[oracle@rac2 ~]$ dbvsegment\_id=0.1.71513 userid=system/oracle

DBVERIFY: Release 10.2.0.4.0 - Productionon Tue Aug 9 21:59:46 2011

Copyright (c) 1982, 2007, Oracle.  All rights reserved.

DBVERIFY - Verification starting :SEGMENT\_ID = 0.1.71513

DBVERIFY - Verification complete

Total Pages Examined         : 2281

Total Pages Processed (Data) : 2280

Total Pages Failing   (Data) : 0

Total Pages Processed (Index): 0

Total Pages Failing   (Index): 0

Total Pages Processed (Other): 0

Total Pages Processed (Seg)  : 1

Total Pages Failing   (Seg) : 0

Total Pages Empty            : 0

Total Pages Marked Corrupt   : 0

Total Pages Influx           : 0

Highest block SCN            : 0 (0.0)

[oracle@rac2 ~]$

注：这种方式要求数据库处于打开的状态。

1. 4.4 验证数据拷贝

由于dbv可以在实例关闭情况下验证数据文件，因此dbv也可以验证数据文件的拷贝。这个拷贝指的是通过RMAN的COPY命令或者**[操作系统](http://lib.csdn.net/base/operatingsystem%20/o%20%B2%D9%D7%F7%CF%B5%CD%B3%D6%AA%CA%B6%BF%E2/t_blank)命令**cp拷贝的数据文件，而不是RMAN生成的[备份](file:///C:\\Users\\Administrator.DavidDai\\Desktop\\Oracle%20DBV%20%E5%A1%A4%A5%E5…%A1%A4%20%E4\\%BB�%E7\\%BB�.doc\\t_self)集格式。

如：

E:/app/Administrator/oradata/orcl>dbvfile= USERS01bak.DBF blocksize=8192

DBVERIFY: Release 11.1.0.7.0 - Productionon 星期三 12月 16 00:30:17 2009

Copyright (c) 1982, 2007, Oracle. Allrights reserved.

DBVERIFY - 开始验证: FILE = E:/app/Administrator/oradata/orcl/USERS01bak.DBF

DBVERIFY - 验证完成

检查的页总数: 640

处理的页总数 (数据): 91

失败的页总数 (数据): 0

处理的页总数 (索引): 33

失败的页总数 (索引): 0

处理的页总数 (其它): 496

处理的总页数 (段) : 0

失败的总页数 (段) : 0

空的页总数: 20

标记为损坏的总页数: 0

流入的页总数: 0

加密的总页数 : 0

最高块 SCN :904088 (0.904088)

通过比较2个dbv 的结果来比较datafile 的copy