

GBase8s 自动初始化脚本使用说明

脚本名称: AutoInit_GBase8s.sh

功能: 自动解压同一目录下的 GBase 8s 安装包，并执行数据库软件安装，数据库初始化，同时根据操作系统资源进行一定的数据库参数优化操作。最终生成可用的数据库环境。

适用性: 适用于 x86_64 架构下的 REHL/CentOS 6 或者以上操作系统环境，在基于 Ubuntu 的银河麒麟（4.0.2）上通过验证。其它系统环境未经实际验证，可能出现异常错误，请谨慎使用。

完成后的 JDBC 连接

DriverName:

gbasedbt: com.gbasedbt.jdbc.Driver

informix: com.informix.jdbc.IfxDriver

URL(直接指定服务器):

jdbc:<USERNAME>-sqli://<IPADDR>:9088/<DBNAME>:<USERNAME_UPPER>SERVER=gbase01;DB_LOCALE=zh_CN.utf8;CLIENT_LOCALE=zh_CN.utf8;IFX_LOCK_MODE_WAIT=10;IFX_ISOLATION_LEVEL=5;

其中: <IPADDR>为实际 IP 地址, <DBNAME>为数据库名称, <USERNAME>为 gbasedbt 或者 informix

用户名称: <USERNAME>

用户密码: GBase123

使用说明:

自动安装

1, 将脚本 AutoInit_GBase8s.sh 与 GBase 8s 安装包放置同一目录下。

```
[root@a02 3.0.0_1]# ll
total 503292
-rwxr-xr-x 1 root root 15139 Jan 11 12:05 AutoInit_GBase8s.sh
-rwxr-xr-x 1 root root 1835 Jan 11 11:59 CheckEnv.sh
-rwxr-xr-x 1 root root 1437 Jan 11 12:41 CleanAll.sh
-rw-r--r-- 1 root root 316221440 Nov 11 2020 GBase8sV8.7_3.0.0_1_93e040_RHEL6_x86_64.tar
-rw-r--r-- 1 root root 1433 Jan 11 12:33 HOW_TO_USE.txt
-rw-r--r-- 1 root root 689 Jan 11 12:02 README.txt
```

2, 执行安装

```
[root@a02 ~]# bash AutoInit_GBase8s.sh
[2020-12-13 12:27:41] The SYSDBA user is: gbasedbt
[2020-12-13 12:27:41] ifconfig check passed.
[2020-12-13 12:27:41] unzip check passed.
[2020-12-13 12:27:41] tar check passed.
[2020-12-13 12:27:41] timeout check passed.
```

```
[2020-12-13 12:27:41] IPADDR: 0.0.0.0
[2020-12-13 12:27:41] Datadir: /data/gbase
[2020-12-13 12:27:41] Creating group [gbasedbt] and user [gbasedbt] with HOME [/home/gbase].
[2020-12-13 12:27:41] Unzipping [GBase8sV8.7_3.0.0_1_93e040_RHEL6_x86_64.tar].
[2020-12-13 12:27:47] Check path INSTALL_DIR(/opt/gbase) security.
[2020-12-13 12:27:47] Execute software install, this will take a moment.
```

说明：不带参数将使用默认的 **DATADIR=/data/gbase**，该目录用于存放数据库空间文件。或者实际不使用该目录，应加参数指定，如：**AutoInit_GBase8s.sh -d /gbasedata/dbs** 指定使用的空间为 **/gbasedata/dbs**。

注：指定的目录应有足够的空间，最小安装不小于 **20GB** 空间。

安装过程中将打印安装过程，日志如下：

```
[root@a02 3.0.0_1]# bash AutoInit_GBase8s.sh
[2022-01-11 12:20:13] The SYSDBA user is: gbasedbt
[2022-01-11 12:20:13] IPADDR: 0.0.0.0
[2022-01-11 12:20:13] Datadir: /opt/gbase/data
[2022-01-11 12:20:13] Creating group [gbasedbt] and user [gbasedbt] with HOME [/home/gbase].
[2022-01-11 12:20:13] Unzipping [GBase8sV8.7_3.0.0_1_93e040_RHEL6_x86_64.tar].
[2022-01-11 12:20:17] Check path INSTALL_DIR(/opt/gbase) security.
[2022-01-11 12:20:17] Execute software install, this will take a moment.
[2022-01-11 12:21:47] Building ~gbasedbt/.bash_profile .
[2022-01-11 12:21:47] Building /opt/gbase/etc/sqlhosts .
[2022-01-11 12:21:47] Building /opt/gbase/etc/onconfig.gbase01 .
[2022-01-11 12:21:47] Creating DATADIR: /opt/gbase/data .
[2022-01-11 12:21:47] Change permission for directory: /opt/gbase/data .
[2022-01-11 12:21:47] Change permission for directory: /opt/gbase .
[2022-01-11 12:21:48] Change permission for directory: /opt .
[2022-01-11 12:21:49] Start run database init: oninit -ivy
Reading configuration file '/opt/gbase/etc/onconfig.gbase01'...succeeded
Creating /GBASEBTTMP/.infxdirs...succeeded
Allocating and attaching to shared memory...succeeded
Creating resident pool 4310 kbytes...succeeded
Creating infos file "/opt/gbase/etc/.infos.gbase01"...succeeded
Linking conf file "/opt/gbase/etc/.conf.gbase01"...succeeded
Initializing rhead structure...rlock_t 16384 (512K)... rlock_t (2656K)... Writing to infos
file...succeeded
Initialization of Encryption...succeeded
Initializing ASF...succeeded
Initializing Dictionary Cache and SPL Routine Cache...succeeded
Bringing up ADM VP...succeeded
Creating VP classes...succeeded
Forking main_loop thread...succeeded
Initializing DR structures...succeeded
Forking 1 'soctcp' listener threads...succeeded
Starting tracing...succeeded
```

```
Initializing 8 flushers...succeeded
Initializing log/checkpoint information...succeeded
Initializing dbspaces...succeeded
Opening primary chunks...succeeded
Validating chunks...succeeded
Creating database partition...succeeded
Initialize Async Log Flusher...succeeded
Starting B-tree Scanner...succeeded
Init ReadAhead Daemon...succeeded
Init DB Util Daemon...succeeded
Initializing DBSPACETEMP list...succeeded
Init Auto Tuning Daemon...succeeded
Checking database partition index...succeeded
Initializing dataskip structure...succeeded
Checking for temporary tables to drop...succeeded
Updating Global Row Counter...succeeded
Forking onmode_mon thread...succeeded
Creating periodic thread...succeeded
Creating periodic thread...succeeded
Starting scheduling system...succeeded
Verbose output complete: mode = 5
OK
[2022-01-11 12:22:06] Creating system database.....
[2022-01-11 12:22:25] Creating dbspace plogdbs.
[2022-01-11 12:22:34] Creating dbspace llogdbs.
[2022-01-11 12:22:44] Creating dbspace tempdbs01
[2022-01-11 12:22:53] Creating smart blob space sbpace01
[2022-01-11 12:23:03] Creating dbspace datadbs01
[2022-01-11 12:23:13] Changing auto extend able on for chunk datadbs01
[2022-01-11 12:23:13] Creating default user for mapping user
[2022-01-11 12:23:13] Moving physical log to plogdbs.
[2022-01-11 12:23:26] Adding 10 logical log file in llogdbs.
[2022-01-11 12:23:36] Moving CURRENT logical log to new logical file.
[2022-01-11 12:23:48] Dropping logical log file which in rootdbs.
[2022-01-11 12:23:48] Creating file $INSTALL_DIR/etc/sysadmin/stop .
[2022-01-11 12:23:48] Optimizing database config.
[2022-01-11 12:23:49] Restart GBase 8s Database Server.
Reading configuration file '/opt/gbase/etc/onconfig.gbase01'...succeeded
Creating /GBASEBTTMP/.infxdirs...succeeded
Allocating and attaching to shared memory...succeeded
Creating resident pool 13478 kbytes...succeeded
Creating infos file "/opt/gbase/etc/.infos.gbase01"...succeeded
Linking conf file "/opt/gbase/etc/.conf.gbase01"...succeeded
Initializing rhead structure...rhlock_t 32768 (1024K)... rlock_t (6640K)... Writing to infos
```

```
file...succeeded
Initialization of Encryption...succeeded
Initializing ASF...succeeded
Initializing Dictionary Cache and SPL Routine Cache...succeeded
Bringing up ADM VP...succeeded
Creating VP classes...succeeded
Forking main_loop thread...succeeded
Initializing DR structures...succeeded
Forking 1 'soctcp' listener threads...succeeded
Starting tracing...succeeded
Initializing 32 flushers...succeeded
Initializing SDS Server network connections...succeeded
Initializing log/checkpoint information...succeeded
Initializing dbspaces...succeeded
Opening primary chunks...succeeded
Validating chunks...succeeded
Initialize Async Log Flusher...succeeded
Starting B-tree Scanner...succeeded
Init ReadAhead Daemon...succeeded
Init DB Util Daemon...succeeded
Initializing DBSPACETEMP list...succeeded
Init Auto Tuning Daemon...succeeded
Checking database partition index...succeeded
Initializing dataskip structure...succeeded
Checking for temporary tables to drop...succeeded
Updating Global Row Counter...succeeded
Forking onmode_mon thread...succeeded
Creating periodic thread...succeeded
Creating periodic thread...succeeded
Starting scheduling system...succeeded
Verbose output complete: mode = 5
[2022-01-11 12:24:07] Create database testdb.
[2022-01-11 12:24:07] Finish.
```

```
---= GBase 8s Information for this install =---
```

```
$GBASEDBTSERVER : gbase01
$GBASEDBTDIR    : /opt/gbase
USER HOME       : /home/gbase
DBSPACE DIR     : /opt/gbase/data
IP ADDRESS      : 0.0.0.0
PORT NUMBER     : 9088
$DB_LOCALE     : zh_CN.utf8
$CLIENT_LOCALE : zh_CN.utf8
JDBC URL       :
```

```

jdbc:gbasedbt-sqli://IPADDR:9088/testdb:GBASEDBTSERVER=gbase01;DB_LOCALE=zh_CN.utf8;CLIENT
_LOCALE=zh_CN.utf8;IFX_LOCK_MODE_WAIT=10
JDBC USERNAME   : gbasedbt
JDBC PASSWORD   : GBase123

```

创建的数据库状态如下:

```

[root@a02 ~]# su - gbasedbt
[gbasedbt@a02 ~]$ onstat -d
GBase Database Server Version 12.10.FC4G1AEE -- On-Line -- Up 00:06:14 -- 3366312 Kbytes

Dbspaces
address          number  flags    fchunk  nchunks  pgsz    flags  owner  name
4e3a0028         1       0x70001  1        1        2048    N BA   gbasedbt  rootdbs
60acfdc8         2       0x70001  2        1        2048    N BA   gbasedbt  plogdbs
610c7028         3       0x60001  3        1        2048    N BA   gbasedbt  llogdbs
610c7258         4       0x42001  4        1        2048    N TBA  gbasedbt  tempdbs01
610c7488         5       0x68001  5        1        2048    N SBA  gbasedbt  sbospace01
610c76b8         6       0x60001  6        1        2048    N BA   gbasedbt  datadbs01

6 active, 2047 maximum

Chunks
address          chunk/dbs  offset  size    free    bpages  flags  pathname
4e3a0258         1    1    0    512000  501675  PO-B-D /data/gbase/rootchk
610c8028         2    2    0    512000  11947   PO-B-D /data/gbase/plogchk
610c9028         3    3    0    512000  11947   PO-B-D /data/gbase/llogchk
610ca028         4    4    0    512000  511947  PO-B-D /data/gbase/tempchk01
610cb028         5    5    0    512000  477465  POSB-D /data/gbase/sbospace01
                Metadata 34482  25659  34482
610cc028         6    6    0    512000  510041  PO-BED /data/gbase/datachk01

6 active, 32766 maximum

NOTE: The values in the "size" and "free" columns for DBspace chunks are
      displayed in terms of "pgsize" of the DBspace to which they belong.

Expanded chunk capacity mode: always
[gbasedbt@a02 ~]$ onstat -g seg

GBase Database Server Version 12.10.FC4G1AEE -- On-Line -- Up 00:06:58 -- 3366312 Kbytes

Segment Summary:
id    key          addr          size          ovhd    class blkused blkfree
34    52564801    44000000     148320256    2171480 R    36211  0
35    52564802    4cd73000     1048576000   12289752 V    84869  171131

```

```

36          52564803  8b573000      2250207232    1    B    549367  0
Total:      -          -          3447103488    -    -    670447  171131

(* segment locked in memory)
No reserve memory is allocated

[gbasedbt@a02 ~]$ onstat -g ntt

GBase Database Server Version 12.10.FC4G1AEE -- On-Line -- Up 00:07:24 -- 3366312 Kbytes

global network information:
#netscb connects      read      write    q-free  q-limits  q-exceed alloc/max
2/ 3      1      13      13      1/ 1  240/ 10  0/ 0  1/ 1

Individual thread network information (times):
netscb thread name    sid    open    read    write address
4f1dcbe0 soctcplst     3 21:09:21 21:09:26      0.0.0.0|9088|soctcp
4f1debe0 soctcppoll     2 21:09:27

```

环境检查

执行 `bash CheckEnv.sh` 检查(AutoInit_GBase8s.sh 自动调用该脚本)当前环境是否支持 GBase 8s 安装;

清除安装

执行 `CleanAll.sh`, 将自动清理 `gbasedbt` 及安装目录;

脚本参数说明

Usage:

```
AutoInit_GBase8s.sh [-d path] [-i path] [-p path] [-s y|n] [-l locale] [-u user] [-o y|n]
```

-d path	The path of dbspace.
-i path	The path of install software.
-p path	The path of home path.
-s y n	Value of dbspace is 1GB? Yes/No, default is Y.
-u user	The user name for SYSDBA, gbasedbt/informix, default is gbasedbt
-l locale	DB_LOCALE/CLIENT_LOCALE value.
-o y n	Only install software? Yes/No, default is N.

- d 指定数据库空间目录, 默认为/data/gbase(若该目录非空, 则使用 INSTALL_DIR/data)
- i 指定数据库软件安装目录 INSTALL_DIR, 默认为/opt/gbase
- p 指定数据库用户 gbasedbt 的 HOME 目录, 默认为/home/gbase
- s 数据库空间是否均使用 1GB, 默认是 y (所有数据库空间均使用 1GB 大小)
- u 指定数据库系统管理员的名称, 仅限 gbasedbt 和 informix
- l 指定数据库的 DB_LOCALE/CLIENT_LOCALE 参数值, 默认为 zh_CN.utf8
- o 指定仅安装数据库, 而不进行初始化操作, 默认是 n (安装并初始化数据库)