

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（如果同时存在 CSDK 安装包，也将一并安装），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 7 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 19403 Sep 24 23:54 AutoInit_GBase8s.sh*
-rwxr-xr-x 1 root root 1906 Aug 12 09:49 CheckEnv.sh*
-rwxr-xr-x 1 root root 1645 Sep 24 23:44 CleanAll.sh*
-rw-r--r-- 1 root root 182456320 Sep 24 22:34 clientsdk_3.0.0_1_93e040_RHLE6_x86_64.tar
-rw-r--r-- 1 root root 316221440 Sep 24 22:34 GBase8sV8.8_3.0.0_1_93e040_RHEL6_x86_64.tar
-rw-r--r-- 1 root root 194560 Sep 24 22:35 gbasedbt_certs.tar
-rw-r--r-- 1 root root 1538 Sep 24 13:54 HOW_TO_USE.txt
-rw-r--r-- 1 root root 1629 Sep 24 14:09 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 [GBase8sV8.8_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 /GBASEDBTMP/.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... rhlock_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 /GBASEDBTMP/.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 00:09:30 -- 605736 Kbytes

Dbspaces
address      number  flags   fchunk  nchunks  pgsz   flags  owner  name
45d54028     1      0x70001 1       1         2048   N BA   gbasedbt rootdbs
49201dc8     2      0x70001 2       1         2048   N BA   gbasedbt plogdbs
4942f028     3      0x60001 3       1         2048   N BA   gbasedbt llogdbs
4942f258     4      0x42001 4       1        16384   N TBA  gbasedbt tempdbs01
4942f488     5      0x68001 5       1         2048   N SBA  gbasedbt sbspace01
4942f6b8     6      0x60001 6       1        16384   N BA   gbasedbt datadbs01

  6 active, 2047 maximum

Chunks
address      chunk/dbs  offset  size    free    bpages  flags  pathname
45d54258     1          1        0      512000 501679          PO-B-D /data/gbase/rootchk
49430028     2          2        0      512000 11947          PO-B-D /data/gbase/plogchk
49431028     3          3        0      512000 11947          PO-B-D /data/gbase/llogchk
49432028     4          4        0      64000  63947          PO-B-- /data/gbase/tempchk01
49438028     5          5        0      512000 477465 477465  POSB-D /data/gbase/sbspace01
                                     Metadata 34482 25659 34482
49439028     6          6        0      64000  63425          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 00:10:04 -- 605736 Kbytes

Segment Summary:

```

```

id      key      addr      size      ovhd      class blkused blkfree
163845  52564801  44000000  14401536  601928    R      3516    0
163846  52564802  44dbc000  393216000  4609704   V      19776   76224
163847  52564803  5c4bc000  45735936  1         B      11166   0
163848  52564804  5f05a000  166359040  1         B      40615   0
163849  52564805  68f01000  561152    7848     M      136     1
Total:  -      -      620273664  -      -      75209   76225

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

[gbasedbt@a02 ~]$ onstat -g ntt

GBase Database Server Version 12.10.FC4G1AEE -- On-Line -- Up 00:10:31 -- 605736 Kbytes

global network information:
#netscb connects      read      write      q-free  q-limits  q-exceed alloc/max
7/ 7      0          0          0  0/ 0  380/ 10  0/ 0  0/ -1

Individual thread network information (times):
netscb thread name      sid      open      read      write address
468d6290 sm_discon      11 23:49:25
468c4290 sm_listen      8 23:49:25
468b0b60 socsslst      6 23:49:25      0.0.0.0|9089|socssl
468b0290 soctcplst      5 23:49:25      0.0.0.0|9088|soctcp
468aa618 sm_poll      4 23:49:25
468aa290 socslpoll      3 23:49:25
468a6290 soctcppoll      2 23:49:25

```

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] [-n SERVMAME]
```

| | |
|-------------|--|
| -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 N. |
| -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. |
| -n SERVMAME | User define GBASEDBTSERVER. |

- 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)
- n 指定数据库服务名称, 默认为 gbase01