# Did you know how big your library is ?

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During our data maintenance , we usually want to know how big our libraries are. Which libraries dominate the whole disk.

First of all, I would like to introduce the SAS environment we need to processs. Our SAS9.2 SPD Server is under AIX operation system and we use EG4.3 to connect to SAS server by using Integrated Open Model (IOM).

I know there is a command SPDSLS to get the library's size , but it only handle one library one time. If we has more than one hundred libraries to check , this way is too hard for us. I found UNIX command DU is very convenient and flexiable , I think we can use it to do better job.

A SPD Server library contain two part : one is Meta data which is really small ,we can neglect it ; the other is real table data which we need to check.

Now the following is the step by step how we complete this task, Hope can help other peoples.

1) Running the following code in EG.

```
options nolabel;
proc sql;
create table x as
 select libname,engine,sysname,'du -g '||strip(sysvalue)||' >
'||strip(libname)||'.txt' as value length=400
  from dictionary.libnames
   where sysname='Datapath' and engine='SASSPDS'
    order by libname;quit;
```

We can see this table now.

| | libname | engine | sysname | value |
|---|---|---|---|---|
| 1 | BHYH1 | SASSPDS | Datapath | du -g '/spds_data1/bhyh1/' '/spds_dat… |
| 2 | BHYH2 | SASSPDS | Datapath | du -g '/spds_data1/bhyh2/' '/spds_dat… |
| 3 | BHYH3 | SASSPDS | Datapath | du -g '/spds_data1/bhyh3/' '/spds_dat… |
| 4 | BHYH4 | SASSPDS | Datapath | du -g '/spds_data1/bhyh4/' '/spds_dat… |
| 5 | BHYH5 | SASSPDS | Datapath | du -g '/spds_data1/bhyh5/' '/spds_dat… |
| 6 | BHYH6 | SASSPDS | Datapath | du -g '/spds_data1/bhyh6/' '/spds_dat… |
| 7 | BHYH7 | SASSPDS | Datapath | du -g '/spds_data1/bhyh7/' '/spds_dat… |
| 8 | BHYH8 | SASSPDS | Datapath | du -g '/spds_data1/bhyh8/' '/spds_dat… |
| 9 | BHYH9 | SASSPDS | Datapath | du -g '/spds_data1/bhyh9/' '/spds_dat… |
| 10 | BJYH1 | SASSPDS | Datapath | du -g '/spds_data1/bjyh1/' '/spds_dat… |
| 11 | BJYH2 | SASSPDS | Datapath | du -g '/spds_data1/bjyh2/' '/spds_dat… |

The SQL create a table named x which contain name of library, engine of library , the type of parameter and a command you used to calculated the size of library.
From sysname=”Datapath”, we know sysvalue is the data path of storing for this libname.

Value column really look like :
du -g '/spds_data1/bhyh1/' '/spds_data2/bhyh1/' '/spds_data3/bhyh1/' '/spds_data4/bhyh1/' '/spds_data5/bhyh1/' '/spds_data6/bhyh1/' '/spds_data7/bhyh1/' > BHYH1.txt

“du –g” means calculated the directory’s size by G measure (e.g. 100 G ). The middle is the data path (i.e. directory ). “ > BHYH1.txt ” is telling OS to redirect the result of the command into a txt file.

2) At AIX , create a temporary directory :

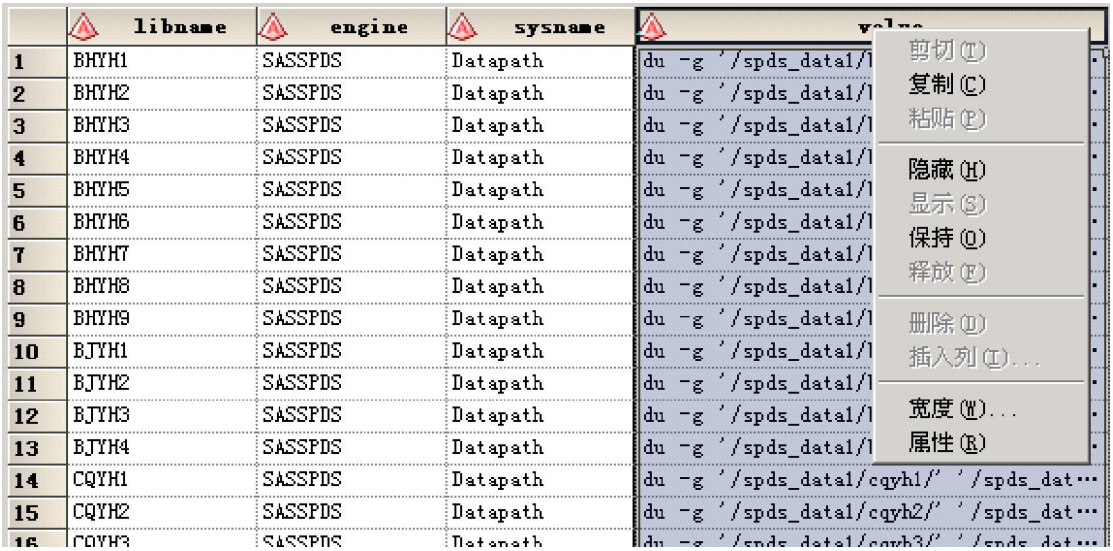
Using software secureCRT to connect to SAS SPD Server . and create a lib_size directory under /spds_data11/temp/

```
$ cd /spds_data11/temp/
$ mkdir lib_size
```

3)Enter the directory we create a moment ago .

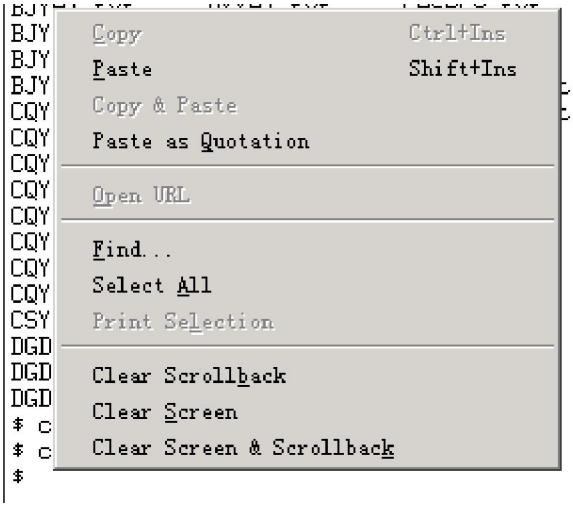
```
$ cd /spds_data11/temp/lib_size
$
```

4)Copy these command from dataset X .




| | libname | engine | sysname | value |
|---|---|---|---|---|
| 1 | BHYH1 | SASSPDS | Datapath | du -g '/spds_data1/1 |
| 2 | BHYH2 | SASSPDS | Datapath | du -g '/spds_data1/1 |
| 3 | BHYH3 | SASSPDS | Datapath | du -g '/spds_data1/1 |
| 4 | BHYH4 | SASSPDS | Datapath | du -g '/spds_data1/1 |
| 5 | BHYH5 | SASSPDS | Datapath | du -g '/spds_data1/1 |
| 6 | BHYH6 | SASSPDS | Datapath | du -g '/spds_data1/1 |
| 7 | BHYH7 | SASSPDS | Datapath | du -g '/spds_data1/1 |
| 8 | BHYH8 | SASSPDS | Datapath | du -g '/spds_data1/1 |
| 9 | BHYH9 | SASSPDS | Datapath | du -g '/spds_data1/1 |
| 10 | BJYH1 | SASSPDS | Datapath | du -g '/spds_data1/1 |
| 11 | BJYH2 | SASSPDS | Datapath | du -g '/spds_data1/1 |
| 12 | BJYH3 | SASSPDS | Datapath | du -g '/spds_data1/1 |
| 13 | BJYH4 | SASSPDS | Datapath | du -g '/spds_data1/1 |
| 14 | CQYH1 | SASSPDS | Datapath | du -g '/spds_data1/cqyh1/' '/spds_dat… |
| 15 | CQYH2 | SASSPDS | Datapath | du -g '/spds_data1/cqyh2/' '/spds_dat… |
| 16 | CQYH3 | SASSPDS | Datapath | du -g '/spds_data1/cqyh3/' '/spds_dat… |

5) Paste these command into secureCRT and enter ENTER :




After that you will see lots of txt file under directory lib_size.

```
$ ls
BHYH1.txt     DGDS3.txt     GHSRC13.txt   JSYH15.txt    JSYH38.txt    JTYH21.txt
BHYH2.txt     DGDS4.txt     GHSRC14.txt   JSYH16.txt    JSYH4.txt     JTYH22.txt
BHYH3.txt     DGDS5.txt     GHSRC15.txt   JSYH17.txt    JSYH5.txt     JTYH23.txt
BHYH4.txt     DGDS6.txt     GHSRC2.txt    JSYH18.txt    JSYH6.txt     JTYH24.txt
BHYH5.txt     DGDS7.txt     GHSRC3.txt    JSYH19.txt    JSYH7.txt     JTYH25.txt
BHYH6.txt     DGDS8.txt     GHSRC4.txt    JSYH2.txt     JSYH8.txt     JTYH26.txt
BHYH7.txt     DGDS9.txt     GHSRC5.txt    JSYH20.txt    JSYH9.txt     JTYH27.txt
BHYH8.txt     DYDG1.txt     GHSRC6.txt    JSYH21.txt    JTDG1.txt     JTYH28.txt
BHYH9.txt     DYDS1.txt     GHSRC7.txt    JSYH22.txt    JTDG2.txt     JTYH29.txt
BJYH1.txt     DYYH1.txt     GHSRC8.txt    JSYH23.txt    JTDS1.txt     JTYH3.txt
BJYH2.txt     DYYH2.txt     GHSRC9.txt    JSYH24.txt    JTDS2.txt     JTYH30.txt
BJYH3.txt     DYYH3.txt     GHTEST.txt    JSYH25.txt    JTTEST.txt    JTYH4.txt
BJYH4.txt     DYYH4.txt     GSDG1202.txt  JSYH26.txt    JTYH1.txt     JTYH5.txt
CQYH1.txt     DYYH5.txt     GSDS1202.txt  JSYH27.txt    JTYH10.txt    JTYH6.txt
```

Open one of them , find the txt look like :

```
$ more BHYH1.txt
0.00    /spds_data1/bhyh1/
0.00    /spds_data2/bhyh1/
0.00    /spds_data3/bhyh1/
0.00    /spds_data4/bhyh1/
0.00    /spds_data5/bhyh1/
0.03    /spds_data6/bhyh1/
0.04    /spds_data7/bhyh1/
$
```

6) Running the following code to get the finally result we need , easy Hoo ?

```
data temp;
 infile '/spds_data11/temp/lib_size/*.txt' lrecl=400 expandtabs ;
 input size path : $40. ;
 length lib_name  $ 40 ;
 lib_name=upcase(scan(path,-2,'/'));
run;
proc means data=temp nway noprint;
class lib_name;
var size;
output out=want(drop=_:) sum=lib_size;
run;
```

Here is the final result.

| | lib_name | lib_size |
|---|---|---|
| 1 | BHYH1 | 0.07 |
| 2 | BHYH2 | 0.18 |
| 3 | BHYH3 | 0.09 |
| 4 | BHYH4 | 3.99 |
| 5 | BHYH5 | 3.26 |
| 6 | BHYH6 | 6.09 |
| 7 | BHYH7 | 0.04 |
| 8 | BHYH8 | 35.94 |
| 9 | BHYH9 | 49.38 |
| 10 | BJYH1 | 3.71 |
| 11 | BJYH2 | 0.52 |
| 12 | BJYH3 | 76.89 |
| 13 | BJYH4 | 18.47 |
| 14 | CQYH1 | 21.14 |
| 15 | CQYH2 | 64.95 |
| 16 | CQYH3 | 1.93 |
| 17 | CQYH4 | 0.19 |
| 18 | CQYH5 | 37.42 |
| 19 | CQYH6 | 29.9 |
| 20 | CQYH7 | 9.15 |