吉林大学

DB2 实验报告

班级：552104

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学号：55210425

姓名	朱家顺	学号	55210425
实验项目	2. Creating databases and data placement		
实验性质	☐演示性实验 ☐验证性实验 ☑操作性实验 ☐综合性实验		
实验地点	计算机楼	机器编号	026
指导教师	康辉	实验时间	2023 年 9 月 15 日 16 时

一、实验综述

1. 实验目的及要求

During this lab, you will create your database and your table spaces. Also in this lab, you will select information on table spaces from the system catalog (SYSCAT) views.

At the end of the lab, students should be able to:

- Create a database
- Create a table space
- Execute a script file to create multiple table spaces
- Access the SYSCAT views containing table space information
- List table space information
- List container information

2. 实验设备、软件

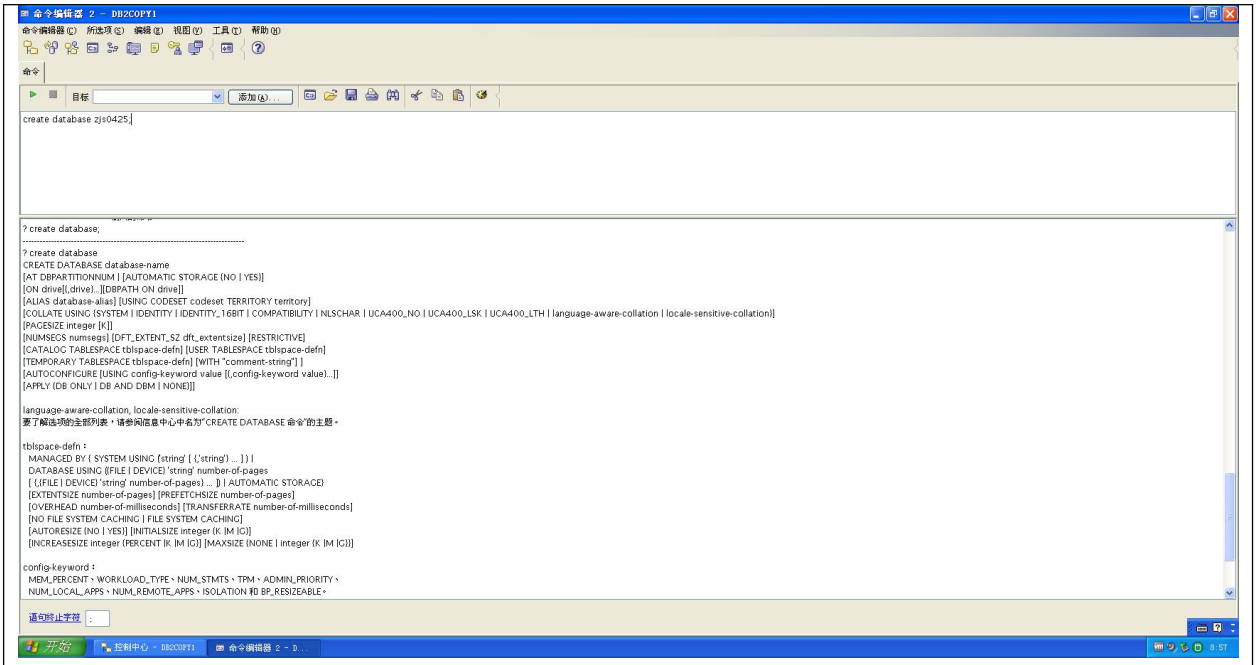
PC, windows XP Professional, DB2 9 Express-c

二、实验过程（实验步骤、记录、数据、分析）

Section 1 - Creating the Database

1. Creating a database can be done with the DB2 command create database. Use the online help facility to display the DB2 command syntax for create database.

Show your work below by printing screen.



2. What information can you specify on the create database command?

The name of the database, the location of the database, an alias name, the codeset and territory for storing the data, a collating sequence, a default extent size, automatic storage, and table space information can be specified on the create database command.

3. Based on what you learned in lecture, what table spaces are created when a database is created?

SYSCATSPACE, USERSPACE1, and TEMPSPACE1

Depending on what you specify when you create the database, there may be a fourth tablespace created with a name of SYSTOOLSPACE. This is created if you specify With Automatic Maintenance instead of Standard when you create the database.

4. What type of table space, SMS or DMS, will your database use by default for these default table spaces?

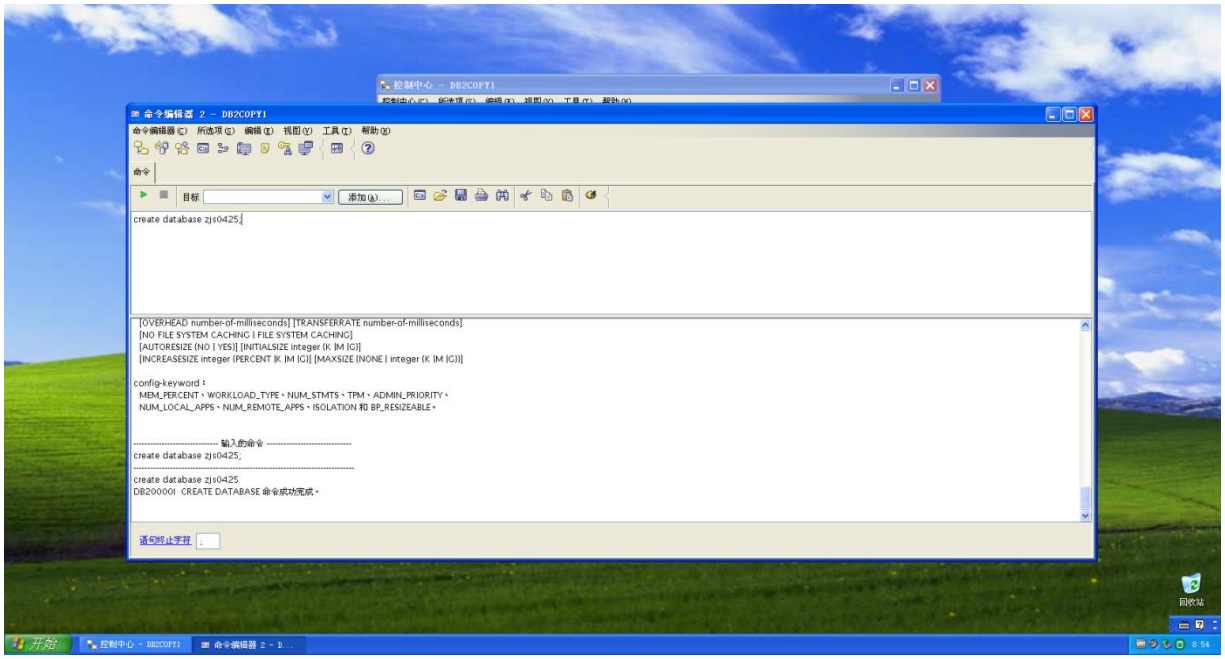
DMS table spaces for SYSCATSPACE and USERSPACE1, and SMS for TEMPSPACE1. Note that in DB2 UDB V8.2 and earlier the default table spaces are SMS.

5. Before we create our MUSICDB database, remember what you learned in lecture about what some of the defaults will be.
•What is the default path that the database will be created on?
•What will be the default table space type (SMS or DMS) for the table spaces that will be created to house User Tables, Catalog Tables, and Temporary Tables?
•What are the default Extent and Prefetch sizes?
•What are the default Territory, Code Set and Collating Sequence values?

The database will be created on the E:\DB2 path by default.

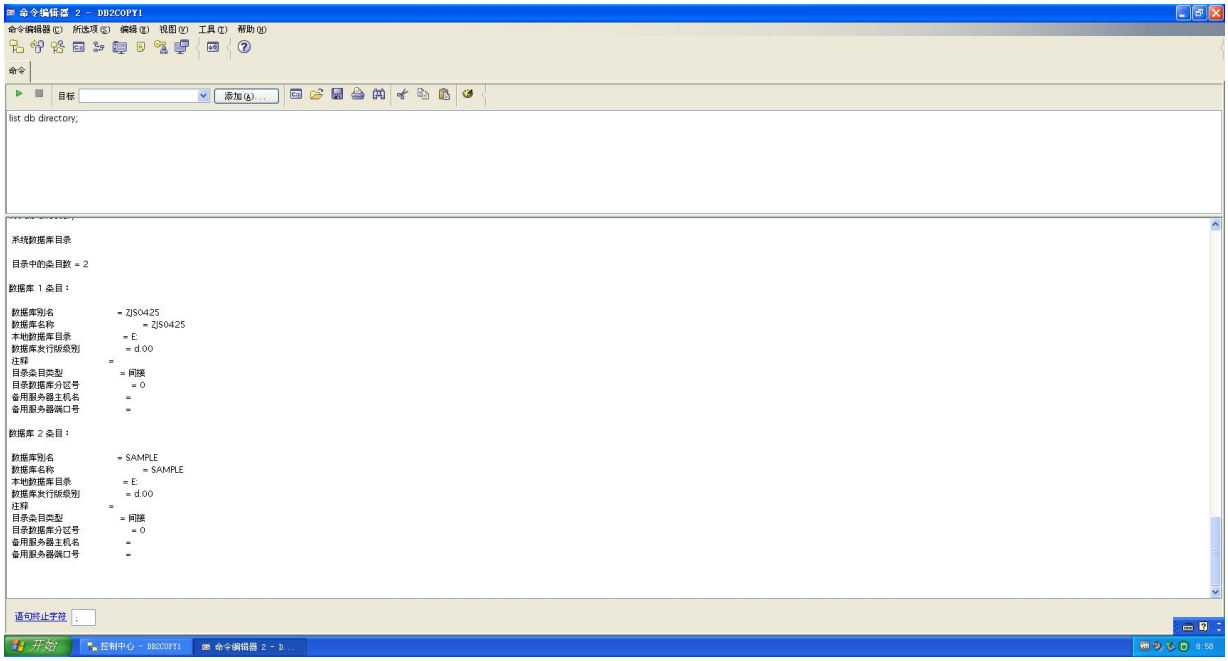
- The default table space type for User Tables and Catalog Tables is DMS, and for Temporary Tables is SMS.
- The default Extent and Prefetch sizes are 324KB pages each.
- The default Territory and Code Set is dependent on your local system settings.

6. Create your database with a Database name of MUSICDB using the default settings. It will take a few minutes to create the database.
Show your work below by printing screen for the last step.



7. You should now have your MUSICDB database created. The System Database Directory contains an entry for all databases known by this instance. Check the System Database Directory for an entry for the MUSICDB database by issuing the list db directory command.

Show your work below by printing screen.



8. What is the Database alias name and where did it come from?

The Database alias name is zjs0425. It defaulted to the database name since no alias was specified when the database was created.

9. What does a Directory entry type of Indirect mean?

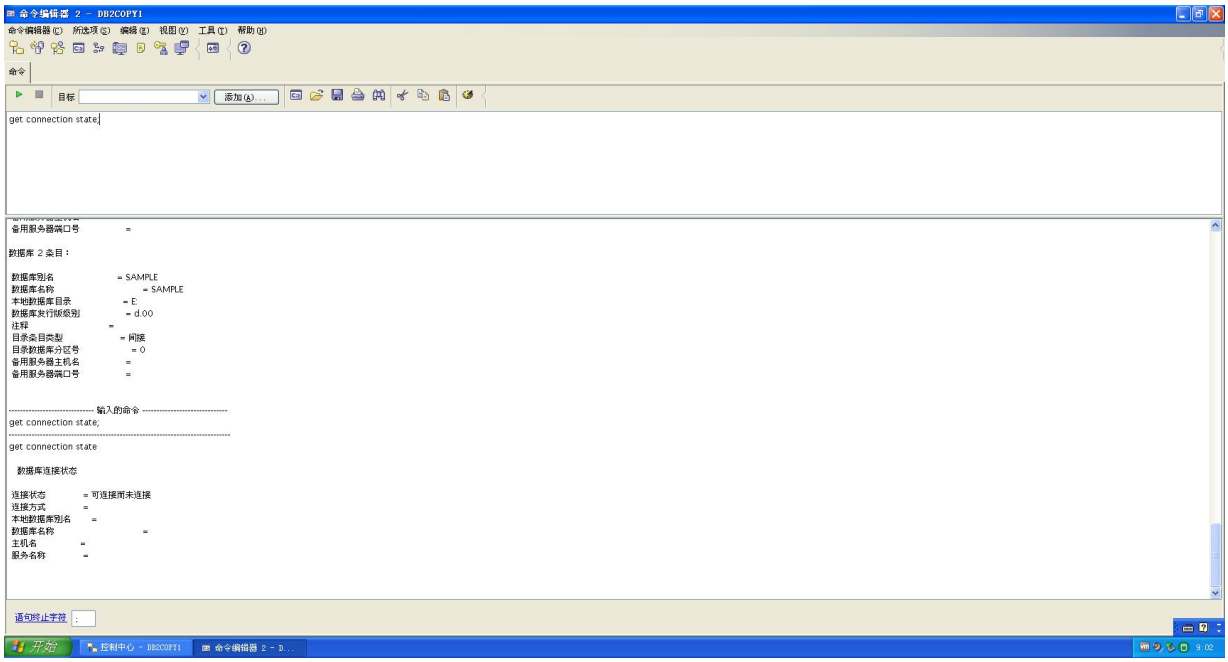
A Directory entry type of Indirect means the database is located on this

system, and that the local database directory can be found here. You will see this if you issue the list database directory command from your telnet window

10. What does a Directory entry type of Remote mean?

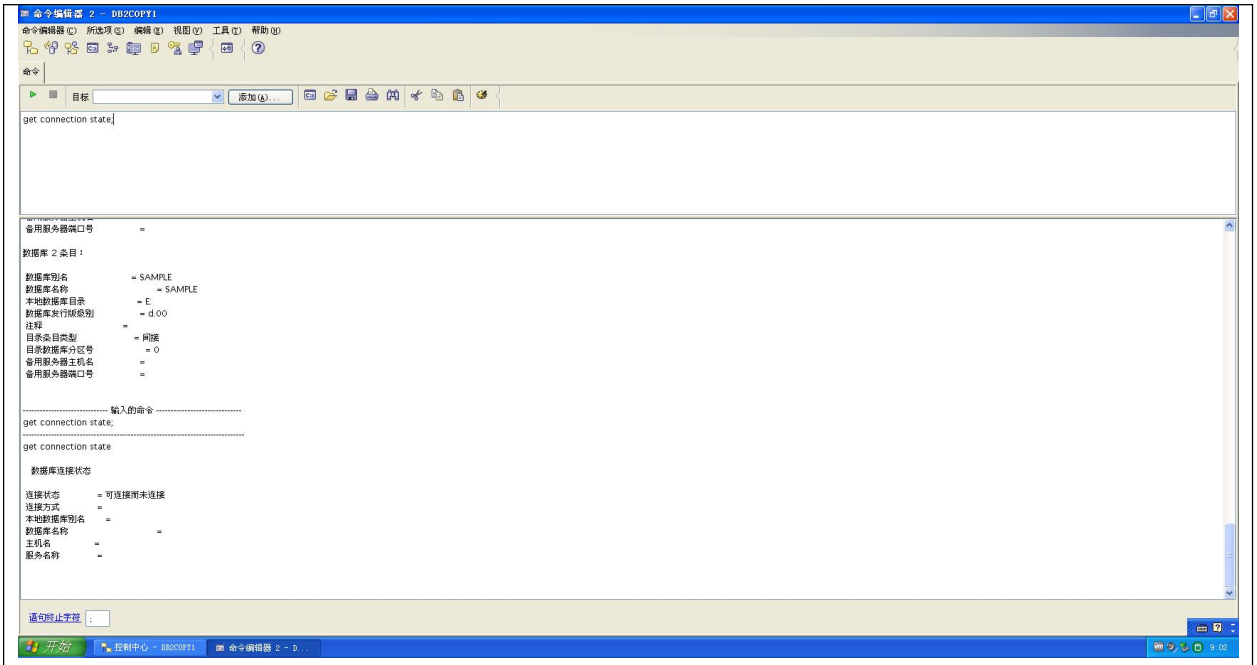
A Directory entry type of Remote means the database is located on another system. You will see this if you issue the list database directory command from the Windows client.

11. It's time to connect to your MUSICDB database. Check your current connection state with the get connection state command.



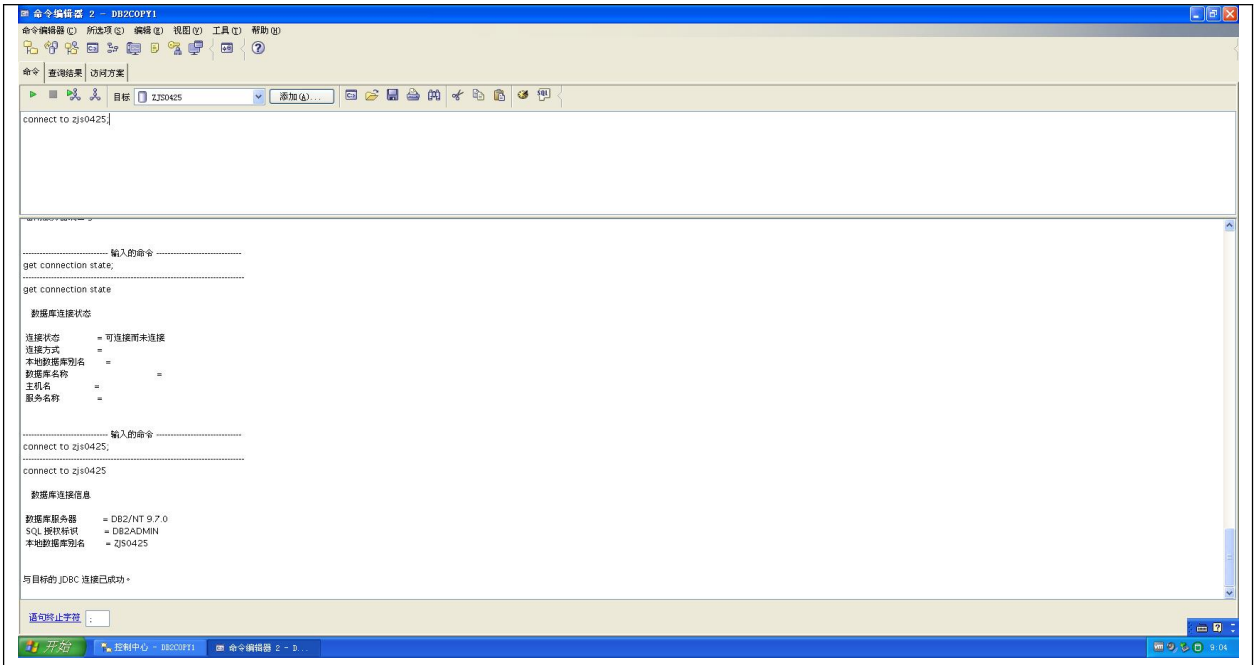
12. What is the connection state?

Show your work below by printing screen.



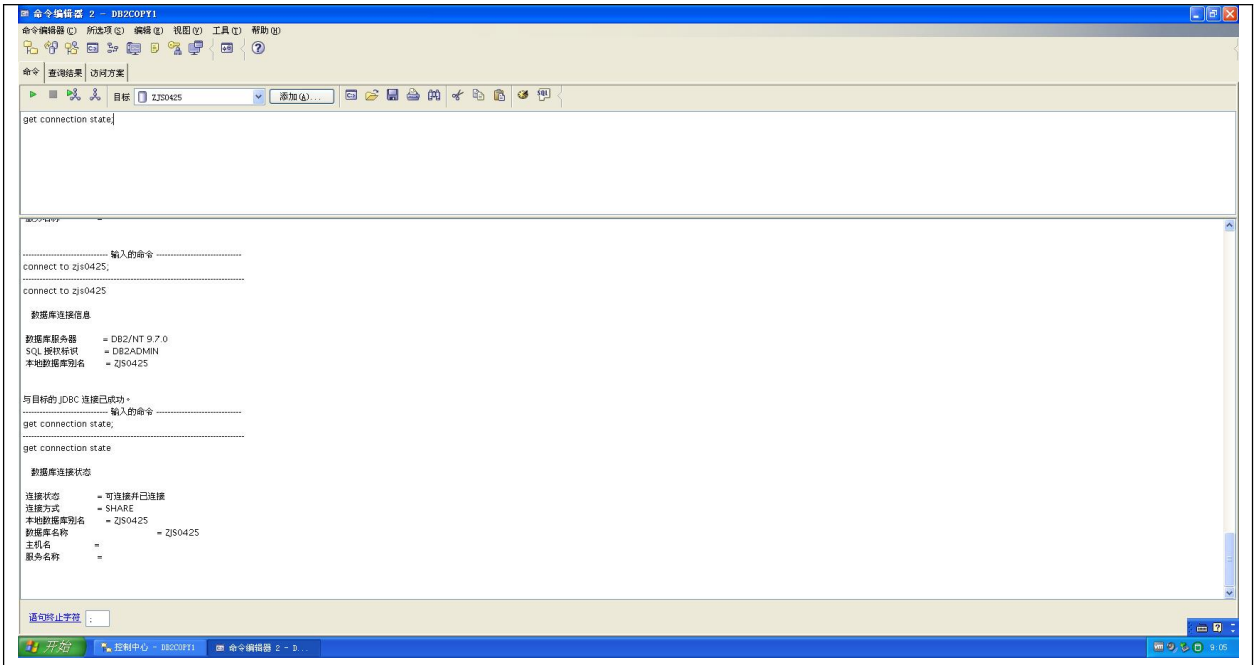
13. Connect to your MUSICDB database.
14. Did you get connected to your MUSICDB database?

Show your work below by printing screen.



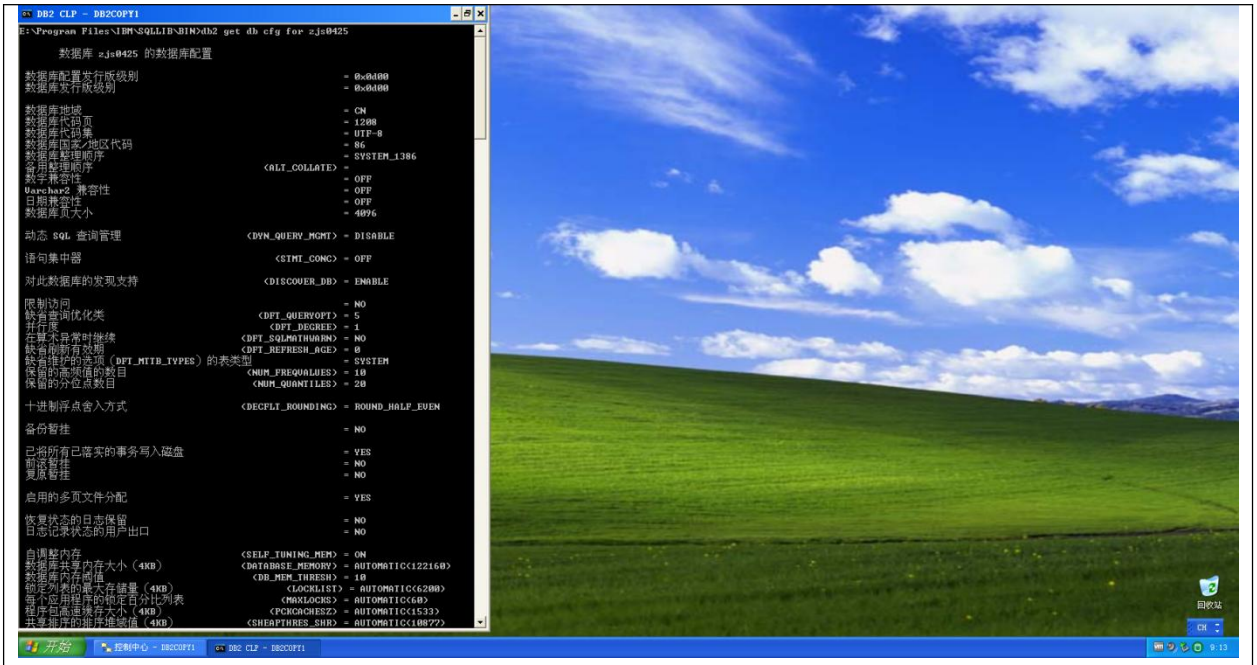
15. Check your connection state again. What does it show?

Show your work below by printing screen.



16. Every database has its own Database Configuration file that contains information about the database and tuning parameters. Look at the Database Configuration file for your MUSICDB database.

Show your work below by printing screen.



17. Find the default values for two specific configuration parameters for your database, LOCKLIST and MAXLOCKS. Since there are a large number of configuration parameters, we can use grep to find the specific ones we want when using a local connection (the equivalent for DB2 on Windows is: ... | find /i “lock”) — the option “i” means case insensitive.

Show your work below by printing screen.

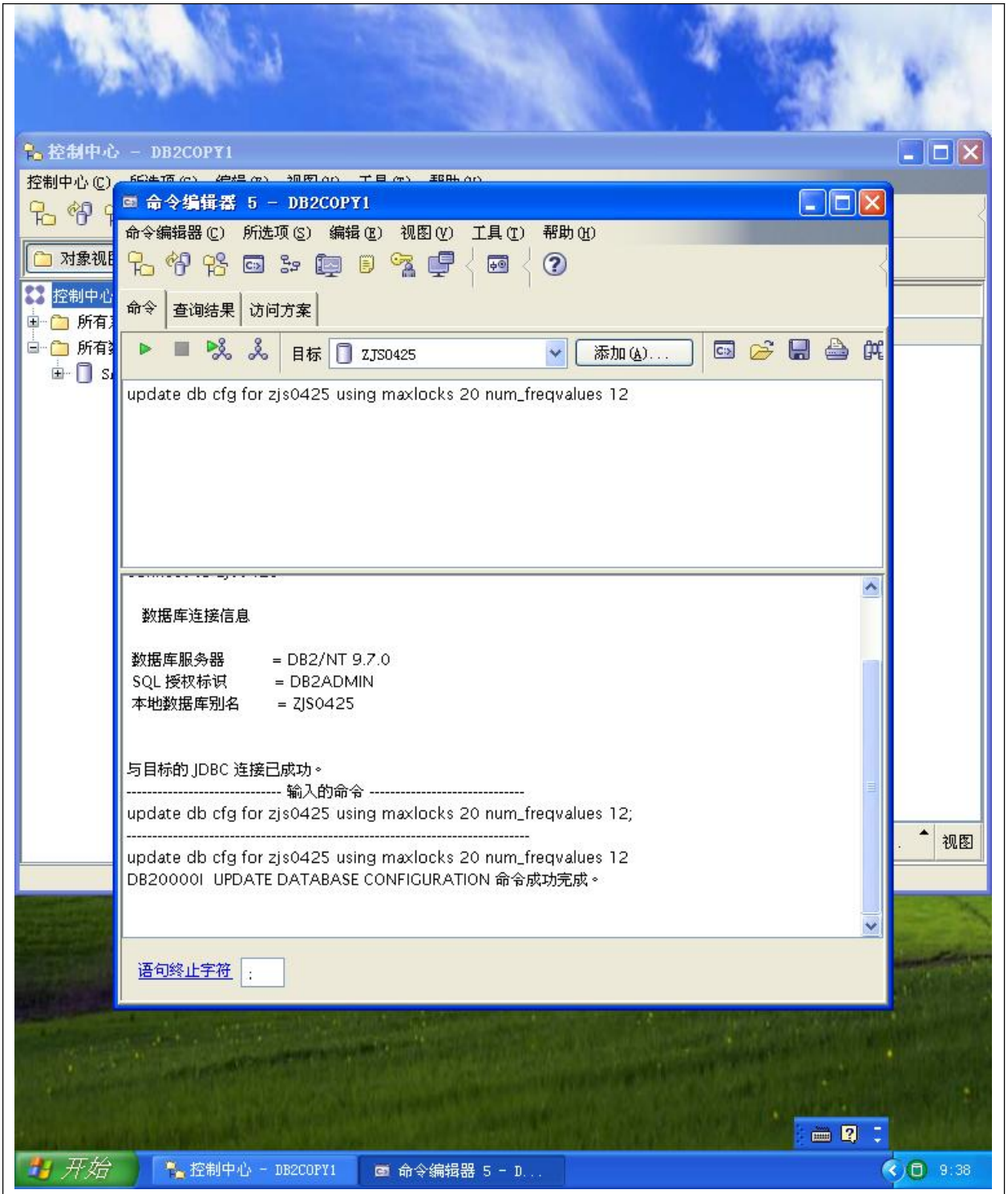

DB2 CLP - DB2COPY1
锁定超时事件数 (MON_LOCKTIMEOUT) = NONE
死锁事件数 (MON_DEADLOCK) = WITHOUT_HIST
锁定等待事件数 (MON_LOCKWAIT) = NONE
锁定等待事件阈值 (MON_LW_THRESH) = 5000000
SMTP 服务器 (SMTP_SERVER) =
E:\Program Files\IBM\SQLLIB\BIN>db2 get db cfg for zjs0425 | find /i "lock"
锁定列表的最大存储量 (4KB) (LOCKLIST) = AUTOMATIC(6200)
每个应用程序的锁定百分比列表 (MAXLOCKS) = AUTOMATIC(60)
锁定超时 (秒) (LOCKTIMEOUT) = -1
非记录块操作 (BLOCKNONLOGGED) = NO
锁定超时事件数 (MON_LOCKTIMEOUT) = NONE
死锁事件数 (MON_DEADLOCK) = WITHOUT_HIST
锁定等待事件数 (MON_LOCKWAIT) = NONE
E:\Program Files\IBM\SQLLIB\BIN>
回收站
CH
开始
控制中心 - DB2COPY1
DB2 CLP - DB2COPY1
9:15

18.Values of some of the parameters can be changed. Update the following parameters and specify the values shown.

• Change maxlocks to 20

• Change num_freqvalues to 12

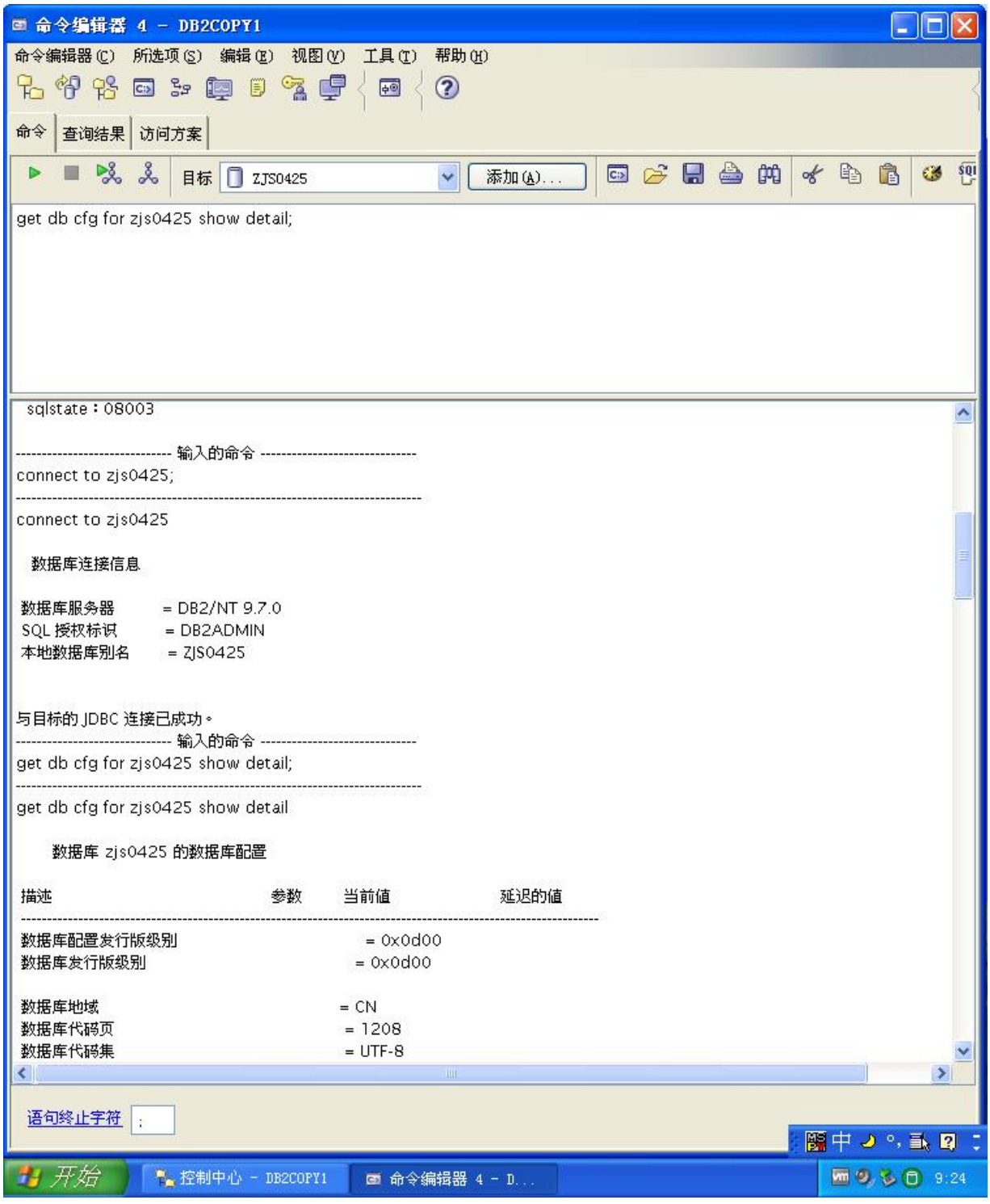
Show your work below by printing screen.

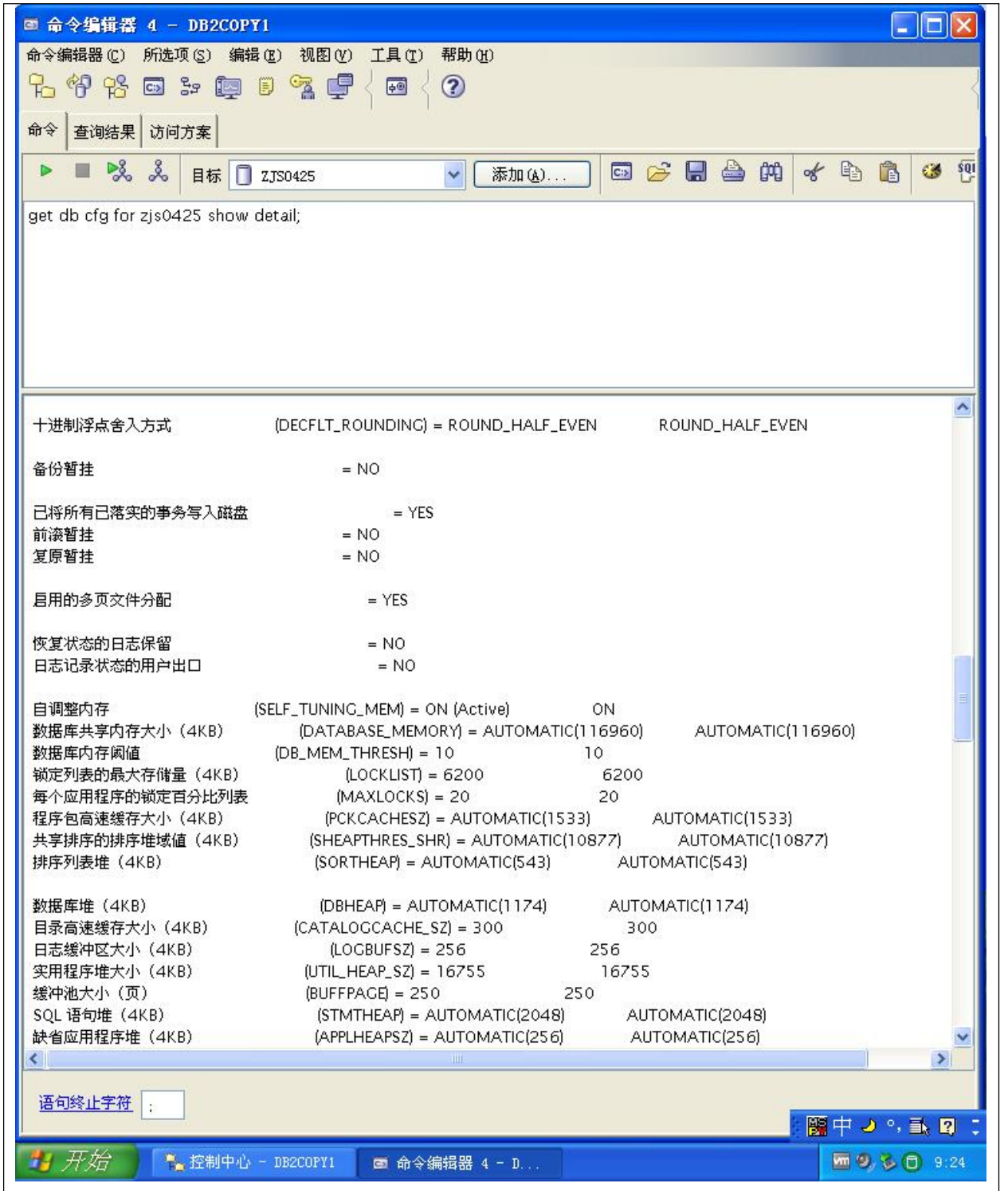


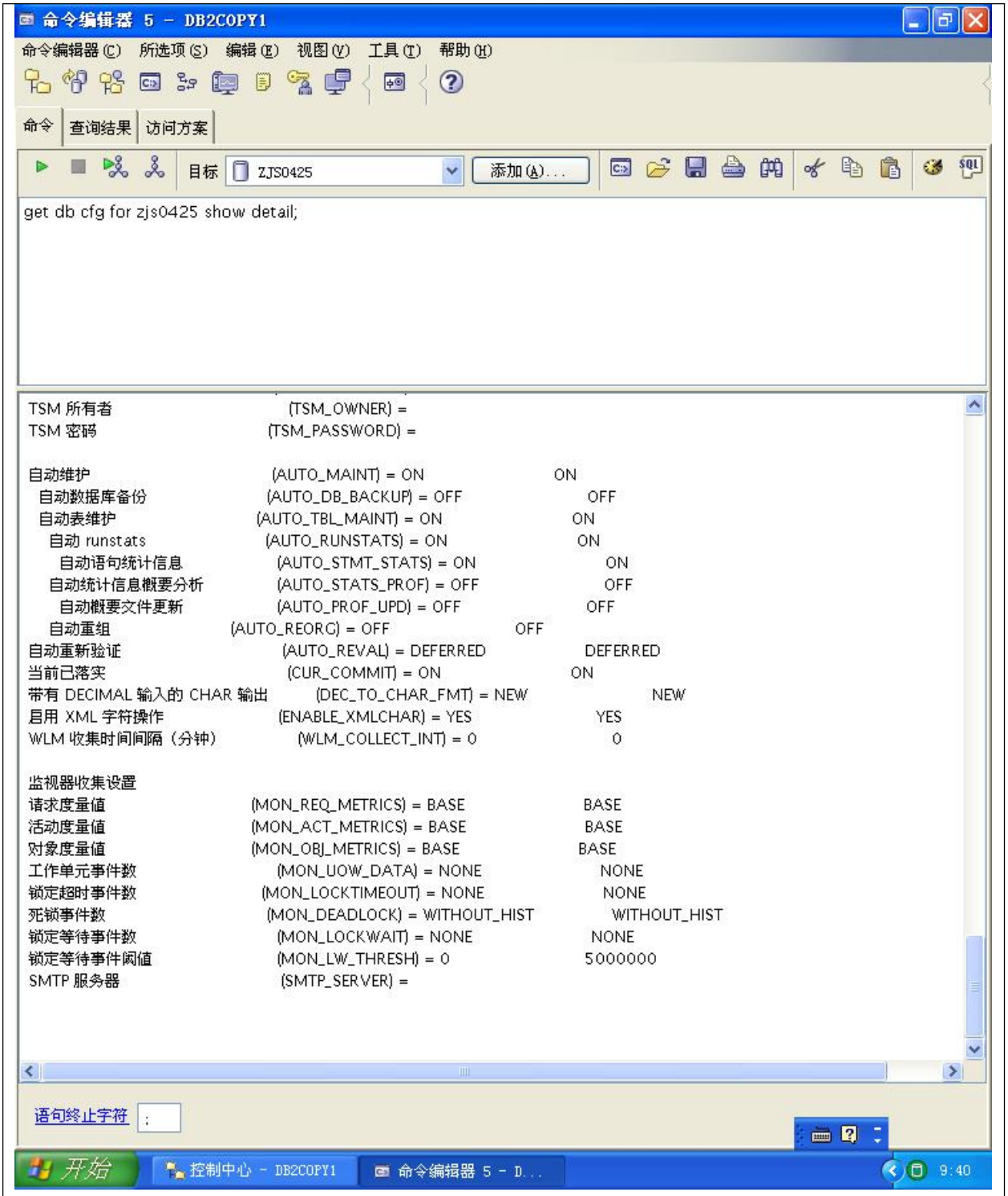
19. When do these database configuration file changes take effect?

For these configuration parameters, the change takes effect immediately.
Note that when you changed the value for MAXLOCKS, the default value for LOCKLIST is also changed — from automatic to an appropriate manual value.

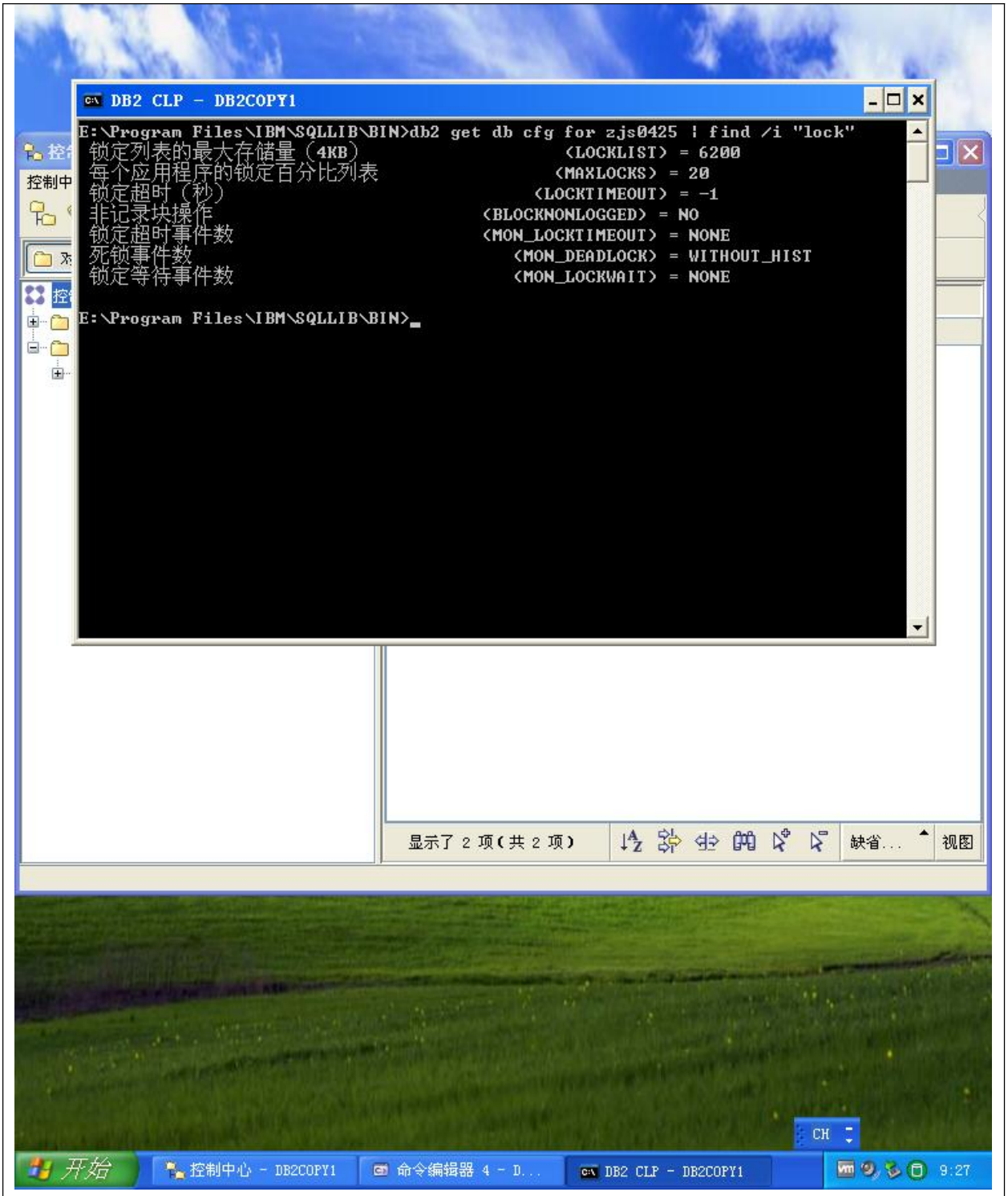
20. Check to see if the Current and Delayed Values are the same for maxlocks and num_freqvalues.
Show your work below by printing screen.


命令编辑器 4 - DB2COPY1
命令编辑器(C) 所选项(S) 编辑(E) 视图(V) 工具(T) 帮助(H)
命令 查询结果 访问方案
目标 ZJS0425 添加(A)...
get db cfg for zjs0425 show detail;
sqlstate：08003
---------- 输入的命令 ----------
connect to zjs0425;
connect to zjs0425
数据库连接信息
数据库服务器 = DB2/NT 9.7.0
SQL 授权标识 = DB2ADMIN
本地数据库别名 = ZJS0425
与目标的 JDBC 连接已成功。
---------- 输入的命令 ----------
get db cfg for zjs0425 show detail;
get db cfg for zjs0425 show detail
数据库 zjs0425 的数据库配置
描述 参数 当前值 延迟的值
数据库配置发行版级别 = 0x0d00
数据库发行版级别 = 0x0d00
数据库地域 = CN
数据库代码页 = 1208
数据库代码集 = UTF-8
语句终止字符 ;
开始
控制中心 - DB2COPY1
命令编辑器 4 - D...
9:24


命令编辑器 4 - DB2COPY1
命令编辑器(C) 所选项(S) 编辑(E) 视图(V) 工具(T) 帮助(H)
命令 查询结果 访问方案
目标 ZJS0425 添加(A)...
get db cfg for zjs0425 show detail;
十进制浮点舍入方式 (DECFLT_ROUNDING) = ROUND_HALF_EVEN ROUND_HALF_EVEN
备份暂挂 = NO
已将所有已落实的事务写入磁盘 = YES
前滚暂挂 = NO
复原暂挂 = NO
启用的多页文件分配 = YES
恢复状态的日志保留 = NO
日志记录状态的用户出口 = NO
自调整内存 (SELF_TUNING_MEM) = ON (Active) ON
数据库共享内存大小（4KB） (DATABASE_MEMORY) = AUTOMATIC(116960) AUTOMATIC(116960)
数据库内存阈值 (DB_MEM_THRESH) = 10 10
锁定列表的最大存储量（4KB） (LOCKLIST) = 6200 6200
每个应用程序的锁定百分比列表 (MAXLOCKS) = 20 20
程序包高速缓存大小（4KB） (PCKCACHESZ) = AUTOMATIC(1533) AUTOMATIC(1533)
共享排序的排序堆域值（4KB） (SHEAPTHRES_SHR) = AUTOMATIC(10877) AUTOMATIC(10877)
排序列表堆（4KB） (SORTHEAP) = AUTOMATIC(543) AUTOMATIC(543)
数据库堆（4KB） (DBHEAP) = AUTOMATIC(1174) AUTOMATIC(1174)
目录高速缓存大小（4KB） (CATALOGCACHE_SZ) = 300 300
日志缓冲区大小（4KB） (LOGBUFSZ) = 256 256
实用程序堆大小（4KB） (UTIL_HEAP_SZ) = 16755 16755
缓冲池大小（页） (BUFFPAGE) = 250 250
SQL 语句堆（4KB） (STMTHEAP) = AUTOMATIC(2048) AUTOMATIC(2048)
缺省应用程序堆（4KB） (APPLHEAPSZ) = AUTOMATIC(256) AUTOMATIC(256)
语句终止字符 ;
开始
控制中心 - DB2COPY1
命令编辑器 4 - D...
9:24

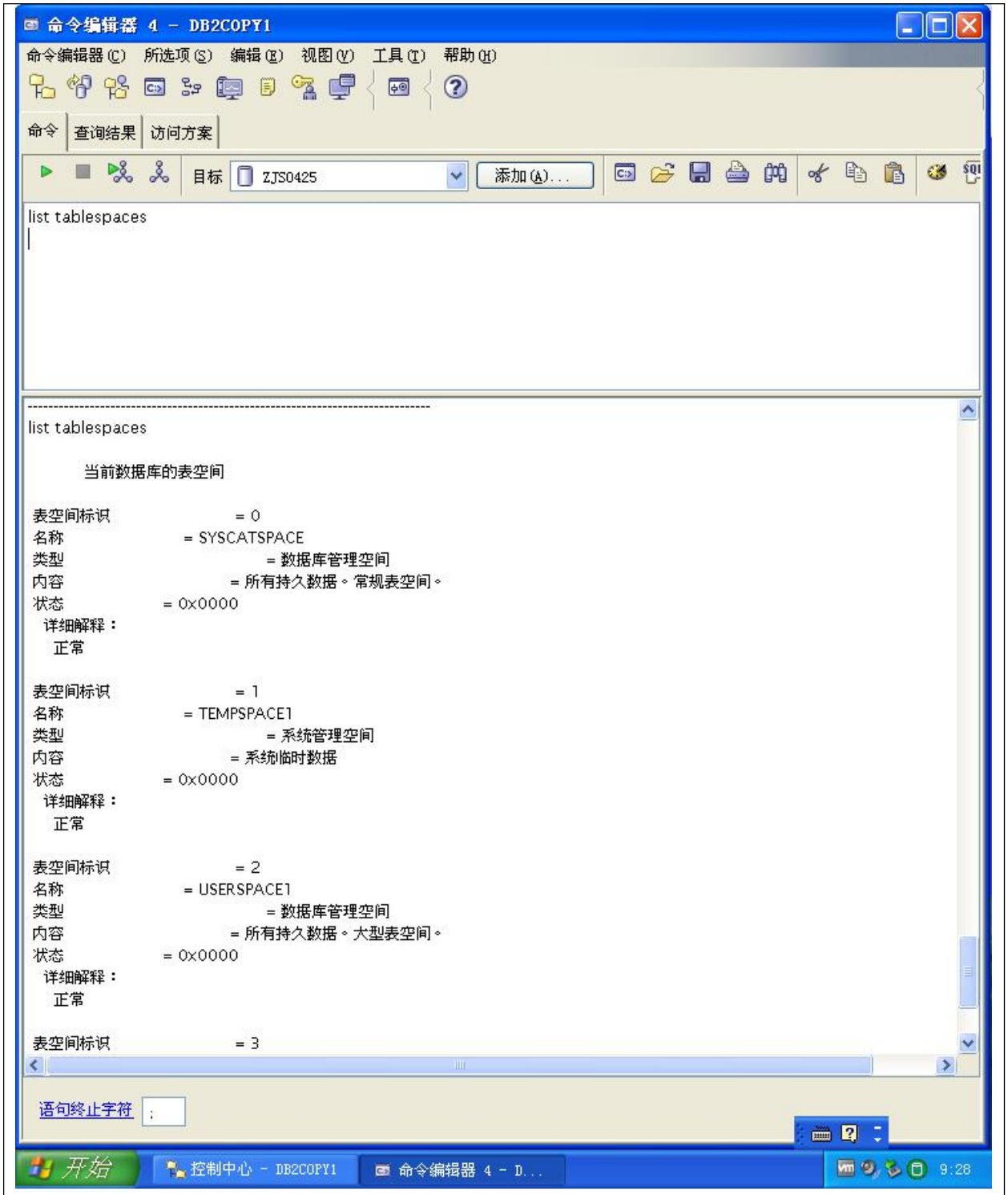


21. Repeat Step #17 above, and record here the new values of LOCKLIST and MAXLOCKS.



22. Some default table spaces were created during creation of the database. List the table space information.

Show your work below by printing screen.


命令编辑器 4 - DB2COPY1
命令编辑器(C) 所选项(S) 编辑(E) 视图(V) 工具(T) 帮助(H)
命令 查询结果 访问方案
目标 ZJS0425
添加(A)...
list tablespaces
list tablespaces
当前数据库的表空间
表空间标识 = 0
名称 = SYSCATSPACE
类型 = 数据库管理空间
内容 = 所有持久数据。常规表空间。
状态 = 0x0000
详细解释：
正常
表空间标识 = 1
名称 = TEMPSPACE1
类型 = 系统管理空间
内容 = 系统临时数据
状态 = 0x0000
详细解释：
正常
表空间标识 = 2
名称 = USERSPACE1
类型 = 数据库管理空间
内容 = 所有持久数据。大型表空间。
状态 = 0x0000
详细解释：
正常
表空间标识 = 3
语句终止字符 ;
开始
控制中心 - DB2COPY1
命令编辑器 4 - D...
9:28

23. What are the table space names and what ID number is associated with the table space?

SYSCATSPACE — ID 0

TEMPSPACE1 — ID 1

USERSPACE1 —ID 2

SYSTOOLSPACE — ID 3

Since you queried the database size info, the fourth table space named SYSTOOLSPACE was created for you.

There are four cases that SYSTOOLSPACE will be automatically created on an active database starting with V8.2:

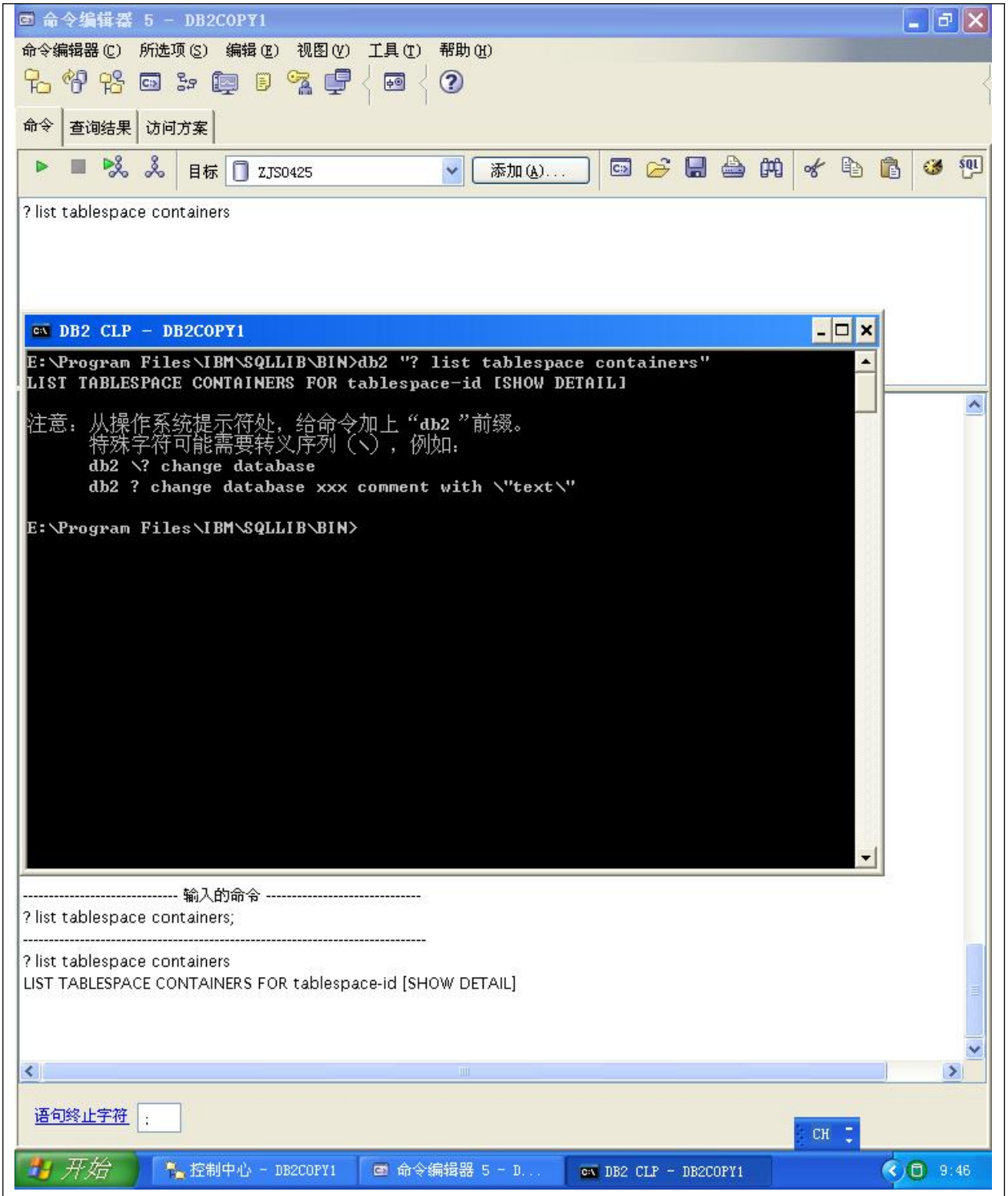
1. DB Summary View of the database is displayed in the Control Center, or similar information is displayed from the command line by issuing:
db2 "CALL GET_DBSIZE_INFO(?, ?, ?, -1)"
2. Create a database with automatic maintenance.
3. Turn on automatic maintenance for a standard database (in the DB CFG file).
4. For a standard database without automatic maintenance, which has not been connected to through the Control Center, hmon (the health monitor) will create one when it starts evaluating health indicators (by default every 2 hrs).

Thus, eventually, a V9.1 database will have a minimum of four table spaces.

The automatic statistics collection and reorganization features — available starting with DB2 UDB V8.2 — store working data in tables in your database. These tables are created in the SYSTOOLSPACE table space. The SYSTOOLSPACE table space is created automatically with default options. Storage requirements for these tables are proportional to the number of tables in the database and should be calculated as approximately 1 KB per table. If this is a significant size for your database, you may want to drop and re-create the table space yourself and allocate storage appropriately. The automatic maintenance and health monitor tables in the table space are automatically

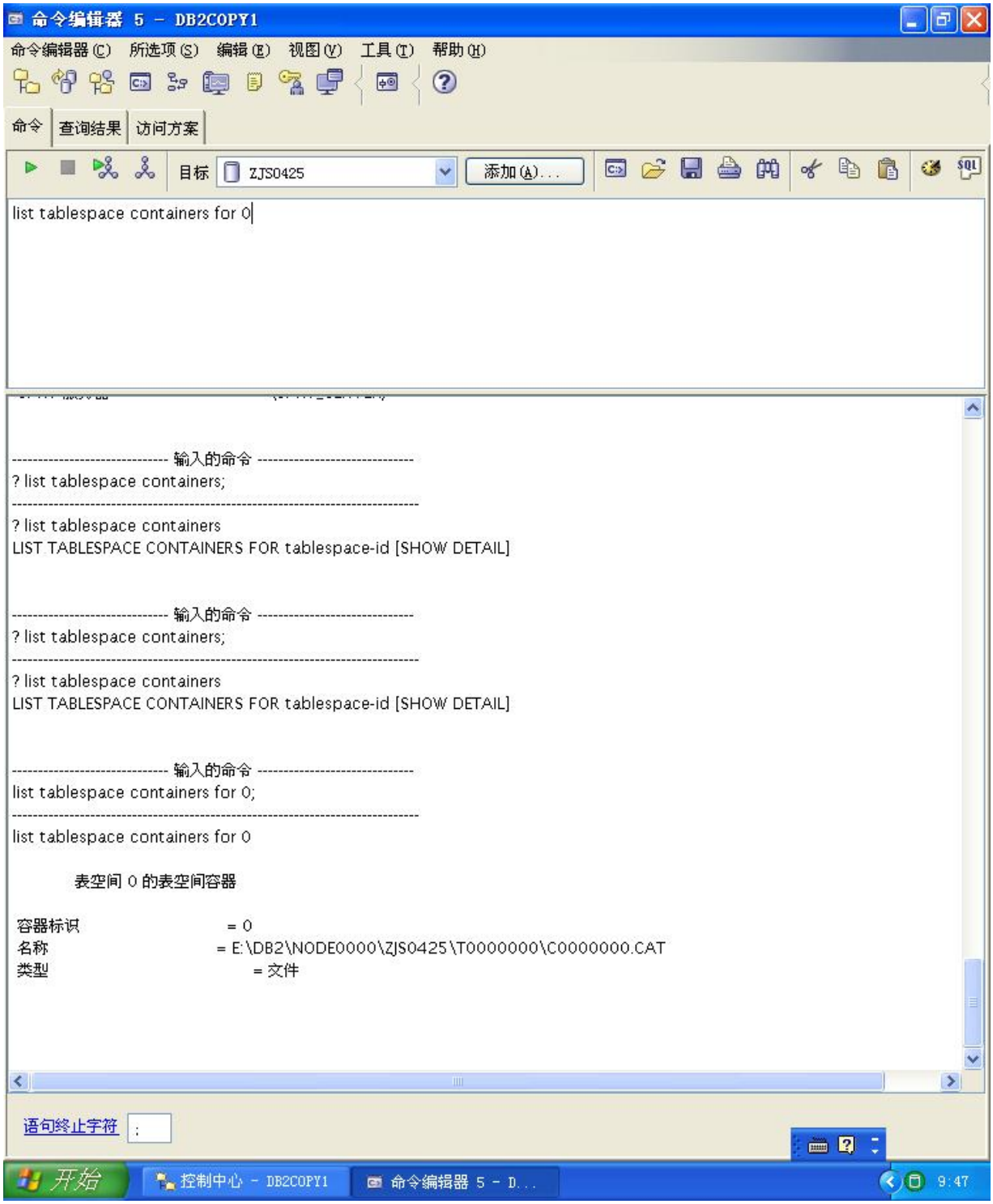
re-created. Any history captured in those tables is lost when the table space is dropped.

24. Table space container information can be displayed with the list tablespace containers command. Use the Help facility to show the DB2 command syntax. *Show your work below by printing screen.*



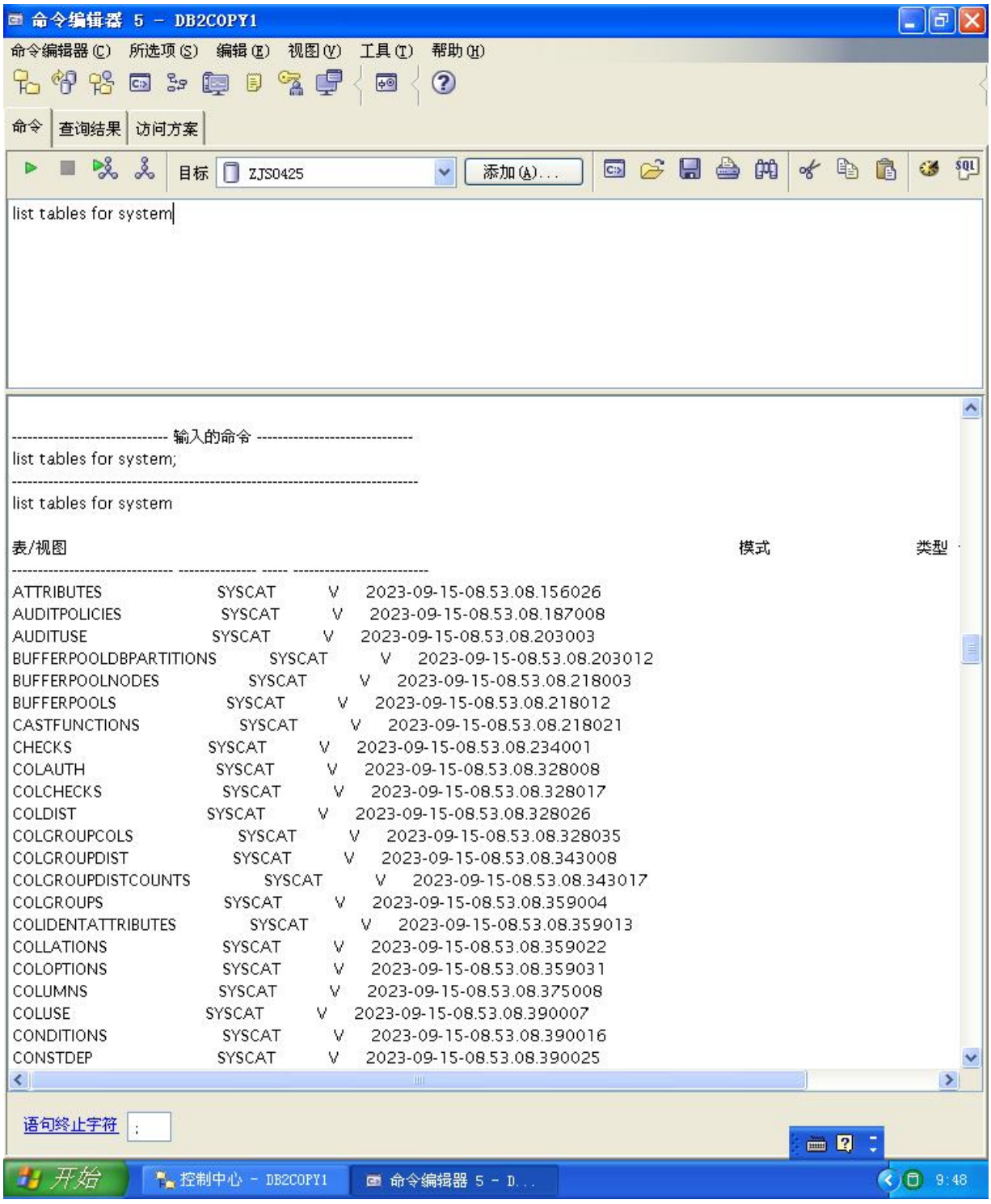
25. Show the container information for table space ID 0. What type of container is this and where is it located?

Show your work below by printing screen.



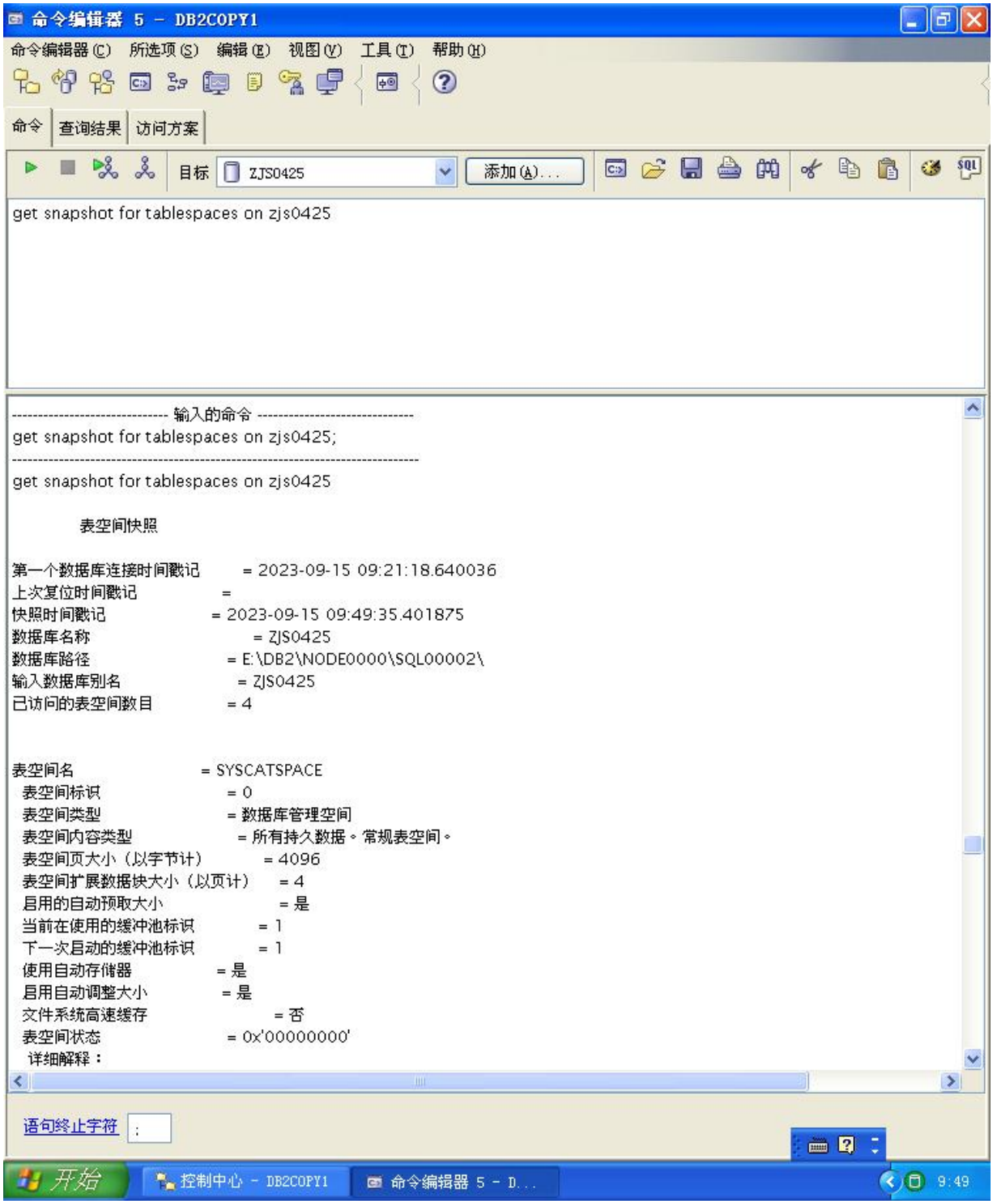
26. List the names of the system catalog tables. What are these tables?

Show your work below by printing screen.

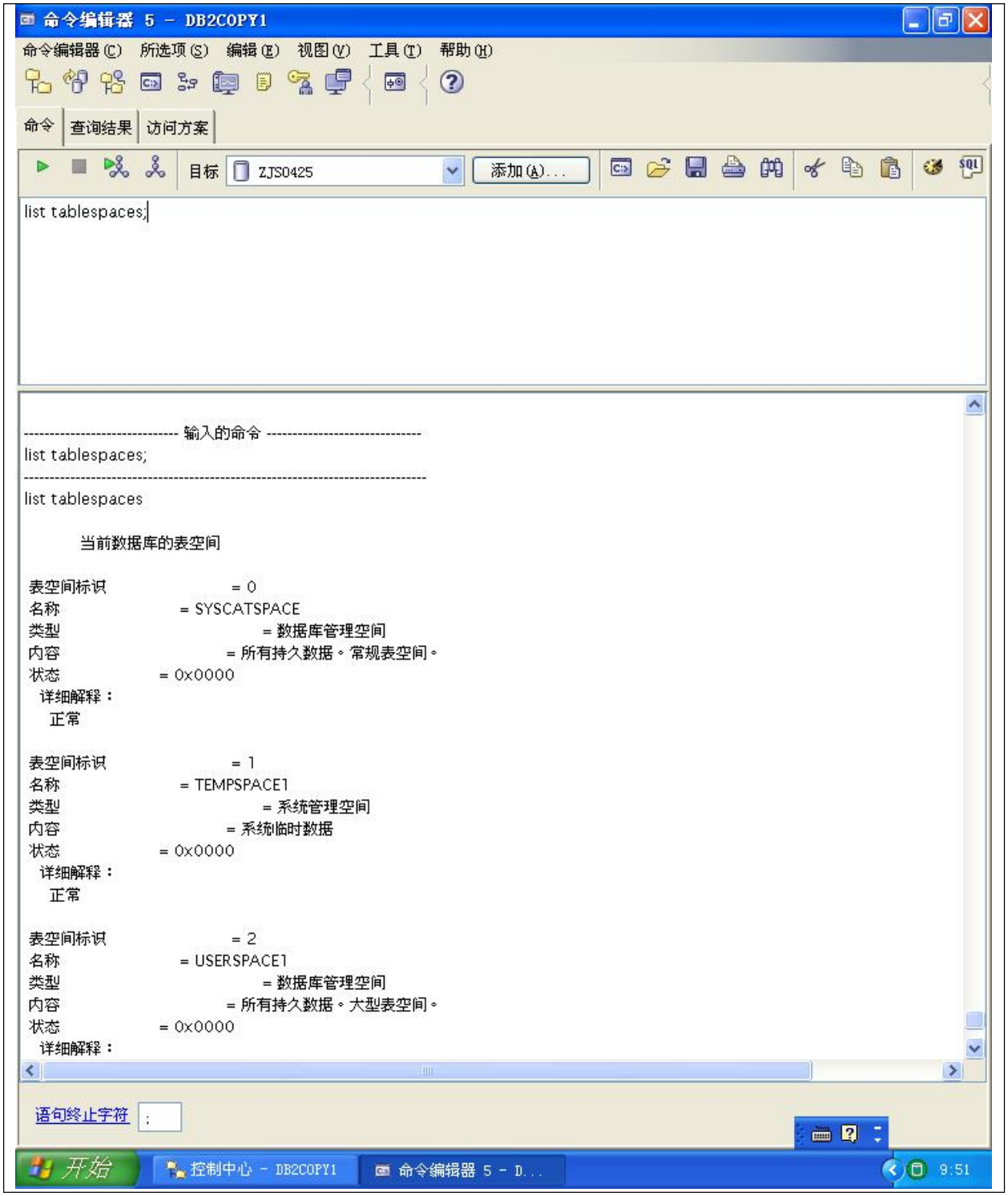

命令编辑器 5 - DB2COPY1
命令编辑器(C) 所选项(S) 编辑(E) 视图(V) 工具(T) 帮助(H)
命令 查询结果 访问方案
目标 ZJS0425 添加(A)...
list tables for system
---------- 输入的命令 ----------
list tables for system;
---
list tables for system
表/视图 模式 类型
ATTRIBUTES SYSCAT V 2023-09-15-08.53.08.156026
AUDITPOLICIES SYSCAT V 2023-09-15-08.53.08.187008
AUDITUSE SYSCAT V 2023-09-15-08.53.08.203003
BUFFERPOOLDBPARTITIONS SYSCAT V 2023-09-15-08.53.08.203012
BUFFERPOOLNODES SYSCAT V 2023-09-15-08.53.08.218003
BUFFERPOOLS SYSCAT V 2023-09-15-08.53.08.218012
CASTFUNCTIONS SYSCAT V 2023-09-15-08.53.08.218021
CHECKS SYSCAT V 2023-09-15-08.53.08.234001
COLAUTH SYSCAT V 2023-09-15-08.53.08.328008
COLCHECKS SYSCAT V 2023-09-15-08.53.08.328017
COLDIST SYSCAT V 2023-09-15-08.53.08.328026
COLGROUPCOLS SYSCAT V 2023-09-15-08.53.08.328035
COLGROUPDIST SYSCAT V 2023-09-15-08.53.08.343008
COLGROUPDISTCOUNTS SYSCAT V 2023-09-15-08.53.08.343017
COLGROUPS SYSCAT V 2023-09-15-08.53.08.359004
COLIDENTATTRIBUTES SYSCAT V 2023-09-15-08.53.08.359013
COLLATIONS SYSCAT V 2023-09-15-08.53.08.359022
COLOPTIONS SYSCAT V 2023-09-15-08.53.08.359031
COLUMNS SYSCAT V 2023-09-15-08.53.08.375008
COLUSE SYSCAT V 2023-09-15-08.53.08.390007
CONDITIONS SYSCAT V 2023-09-15-08.53.08.390016
CONSTDEP SYSCAT V 2023-09-15-08.53.08.390025
语句终止字符 ;
开始
控制中心 - DB2COPY1
命令编辑器 5 - D...
9:48

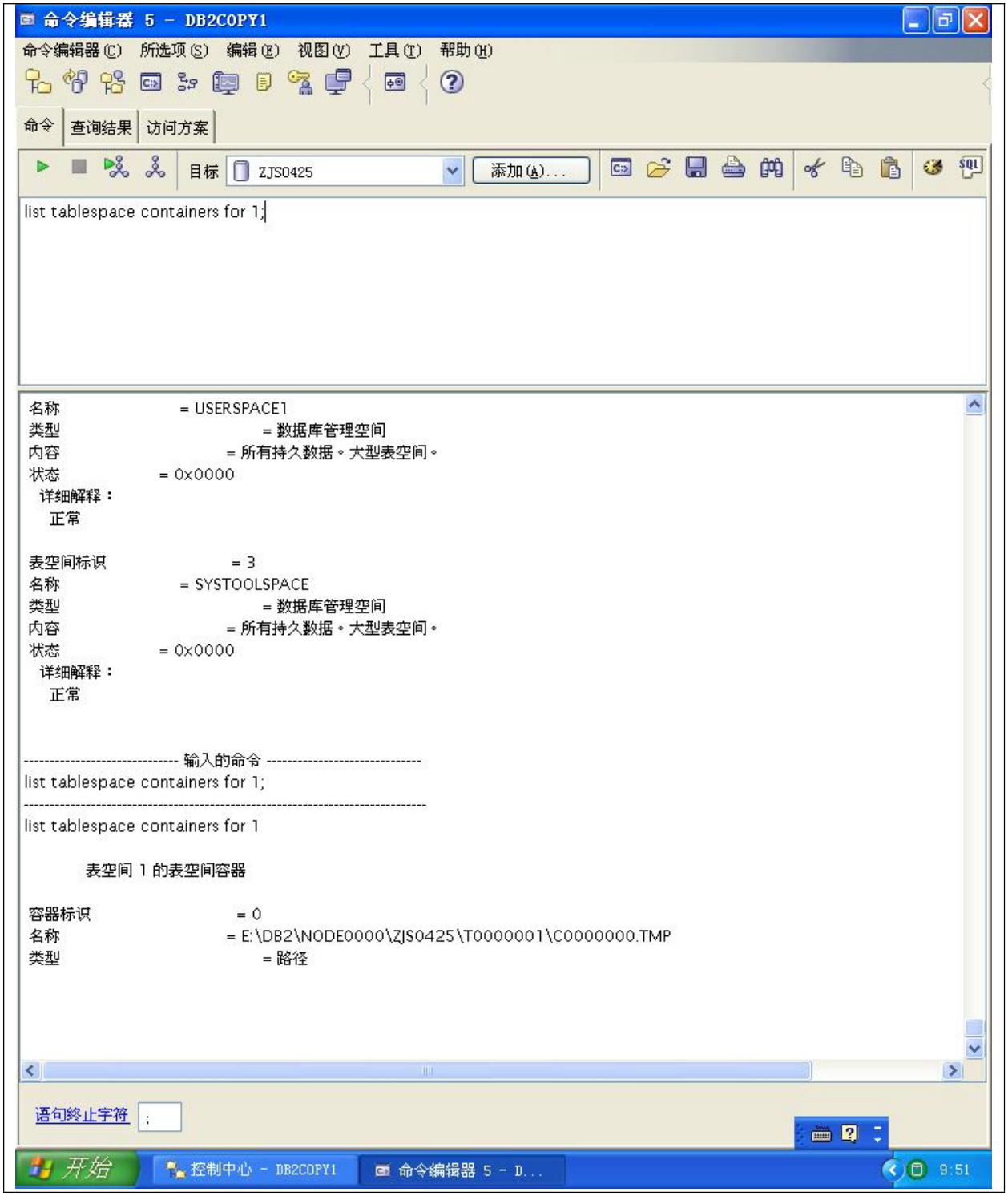
27. Get more detailed information for the table spaces and indicate which table spaces are set to automatic size increase.

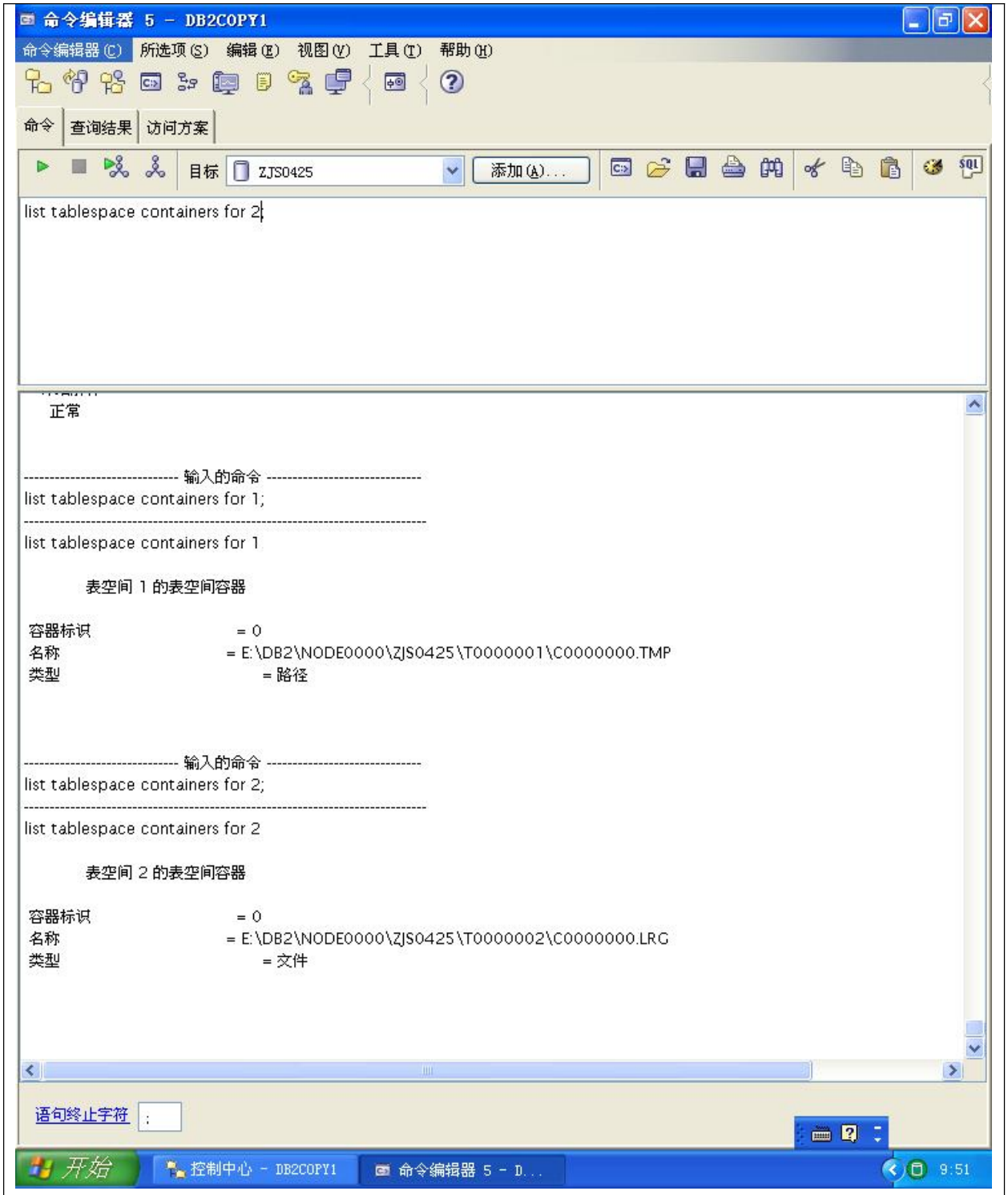
Show your work below by printing screen.



28. Verify which default path containers are associated with the temporary table space and the default user table space.
Show your work below by printing screen.

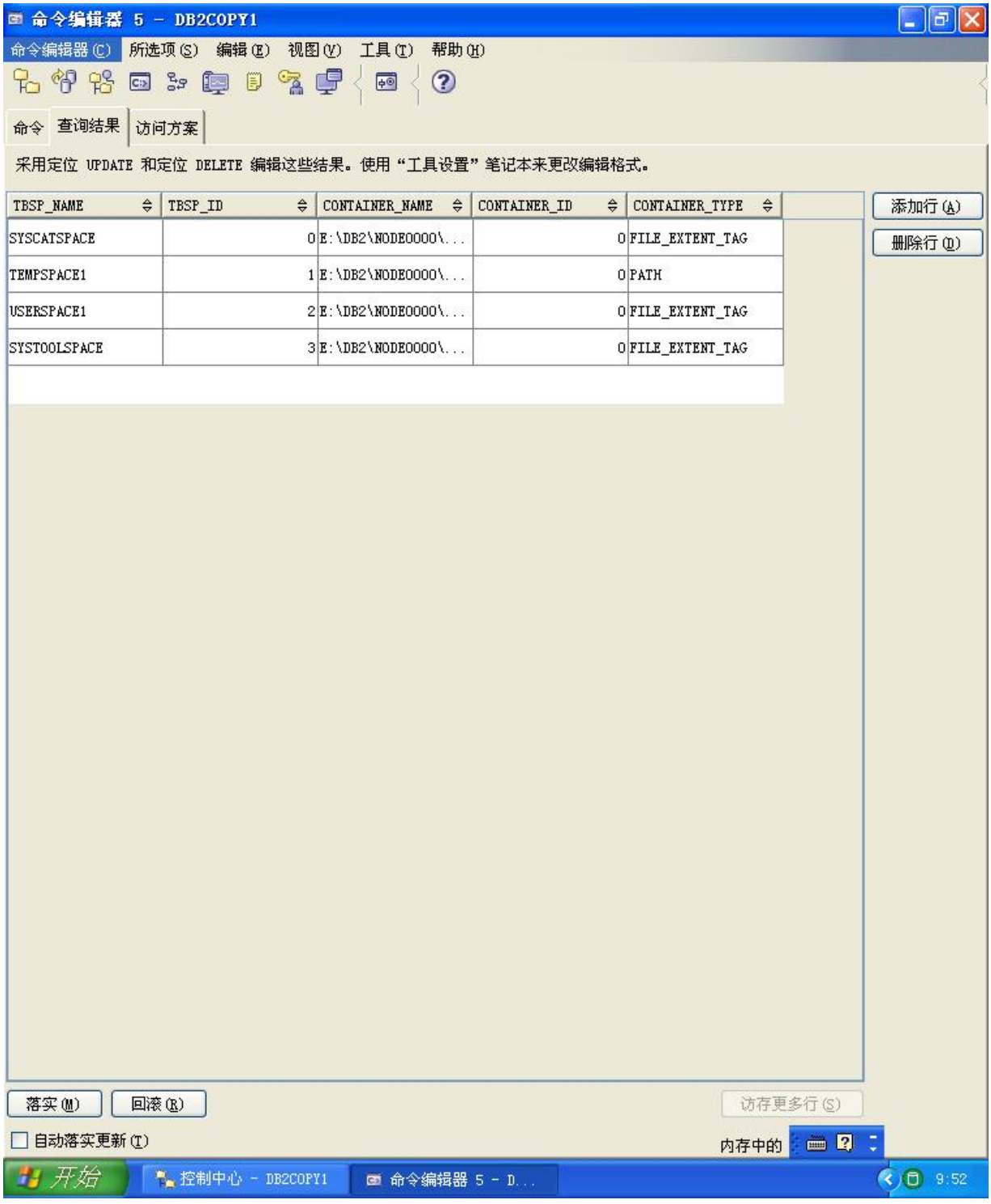

命令编辑器 5 - DB2COPY1
命令编辑器(C) 所选项(S) 编辑(E) 视图(V) 工具(T) 帮助(H)
命令 查询结果 访问方案
目标 ZJS0425
添加(A)...
list tablespaces;
---------- 输入的命令 ----------
list tablespaces;
---
list tablespaces
当前数据库的表空间
表空间标识 = 0
名称 = SYSCATSPACE
类型 = 数据库管理空间
内容 = 所有持久数据。常规表空间。
状态 = 0x0000
详细解释：
正常
表空间标识 = 1
名称 = TEMPSPACE1
类型 = 系统管理空间
内容 = 系统临时数据
状态 = 0x0000
详细解释：
正常
表空间标识 = 2
名称 = USERSPACE1
类型 = 数据库管理空间
内容 = 所有持久数据。大型表空间。
状态 = 0x0000
详细解释：
语句终止字符 ;
开始
控制中心 - DB2COPY1
命令编辑器 5 - D...
9:51


命令编辑器 5 - DB2COPY1
命令编辑器(C) 所选项(S) 编辑(E) 视图(V) 工具(T) 帮助(H)
命令 查询结果 访问方案
目标 ZJS0425
添加(A)...
list tablespace containers for 1;
名称 = USERSPACE1
类型 = 数据库管理空间
内容 = 所有持久数据。大型表空间。
状态 = 0x0000
详细解释：
正常
表空间标识 = 3
名称 = SYSTOOLSPACE
类型 = 数据库管理空间
内容 = 所有持久数据。大型表空间。
状态 = 0x0000
详细解释：
正常
---------- 输入的命令 ----------
list tablespace containers for 1;
---
list tablespace containers for 1
表空间 1 的表空间容器
容器标识 = 0
名称 = E:\DB2\NODE0000\ZJS0425\T0000001\C0000000.TMP
类型 = 路径
语句终止字符 ;
开始
控制中心 - DB2COPY1
命令编辑器 5 - D...
9:51


命令编辑器 5 - DB2COPY1
命令编辑器(C) 所选项(S) 编辑(E) 视图(V) 工具(T) 帮助(H)
命令 查询结果 访问方案
目标 ZJS0425 添加(A)...
list tablespace containers for 2
正常
---------- 输入的命令 ----------
list tablespace containers for 1;
---
list tablespace containers for 1
表空间 1 的表空间容器
容器标识 = 0
名称 = E:\DB2\NODE0000\ZJS0425\T0000001\C0000000.TMP
类型 = 路径
---------- 输入的命令 ----------
list tablespace containers for 2;
---
list tablespace containers for 2
表空间 2 的表空间容器
容器标识 = 0
名称 = E:\DB2\NODE0000\ZJS0425\T0000002\C0000000.LRG
类型 = 文件
语句终止字符 ;
开始
控制中心 - DB2COPY1
命令编辑器 5 - D...
9:51

29. Retrieve detailed container information from the Catalog tables. What is the container types for each container?

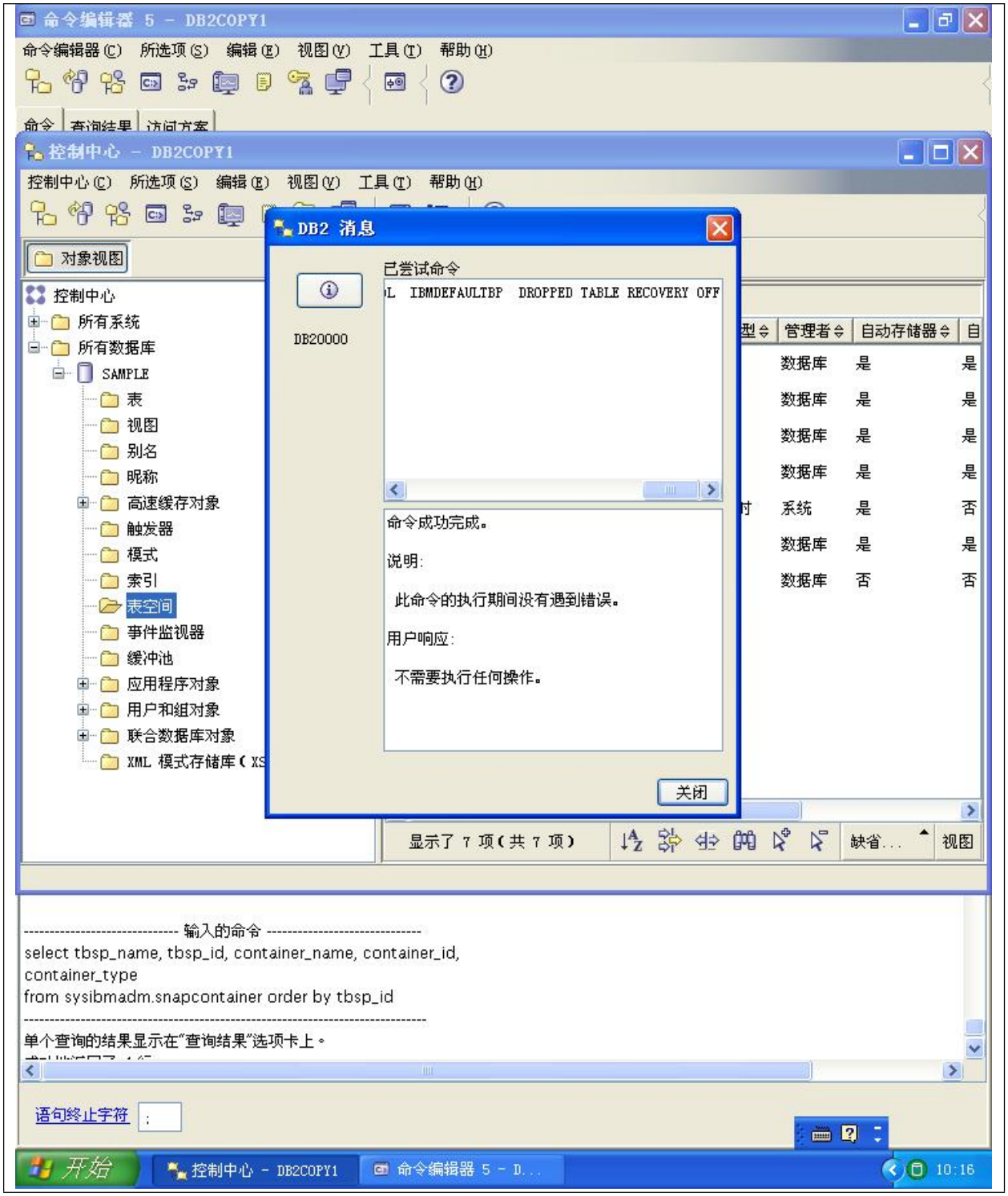
Show your work below by printing screen.

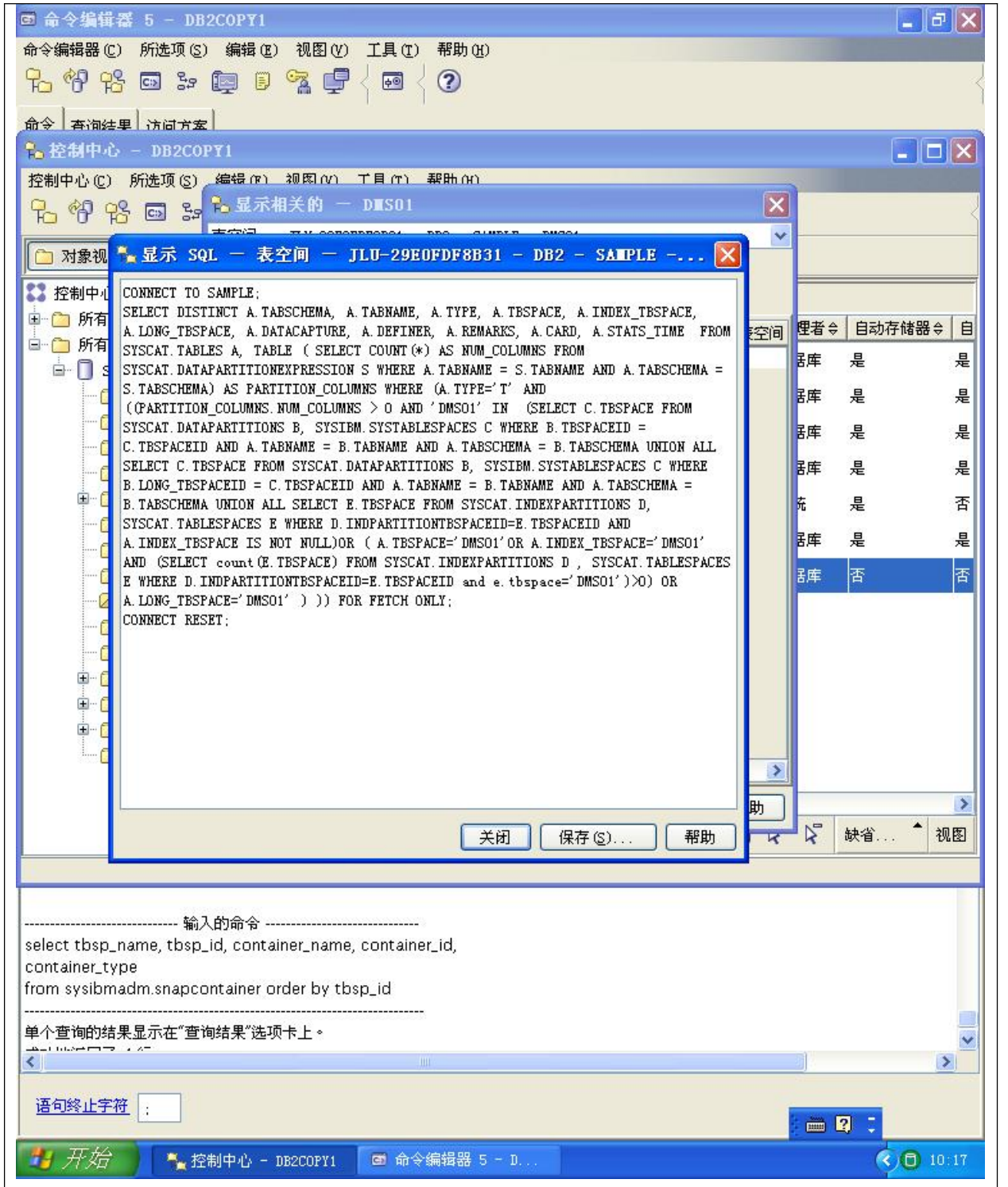


Section 2 - Creating Table Spaces

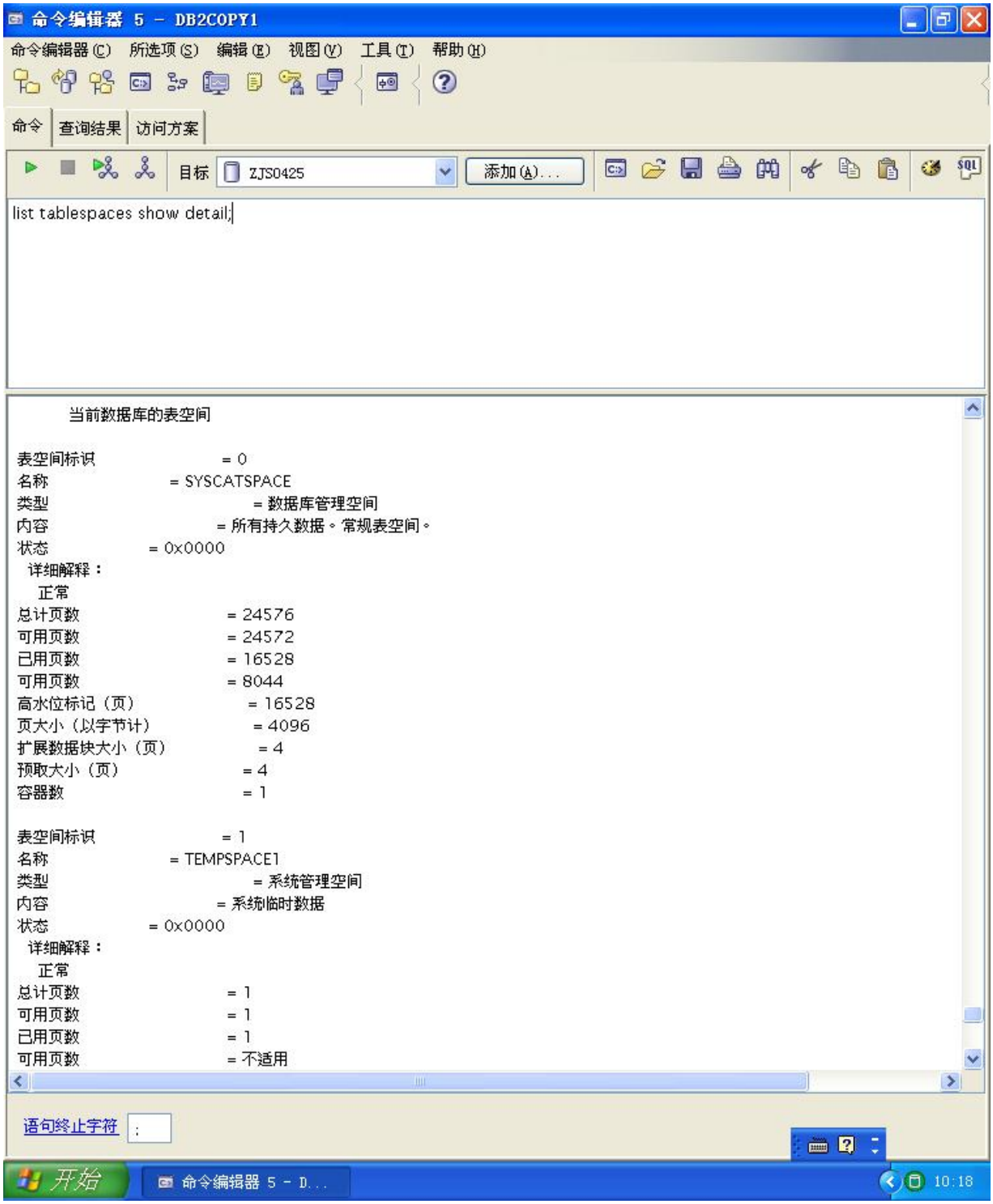
1. Create your first table space. It should have the following characteristics:
   - •Table space name is DMS01
   - •Table Space Type is Regular
   - •Buffer Pool should be IBMDEFAULTBP (which is also the default)
   - •Table Space management is DMS (also called high performance)
   - •Container size should be 1006 pages with 4 KB pages
   - •Container should be a File
   - •Container path and filename should be C:\dms\dms01 (Windows)
   - •Table space extent size and prefetch size should be 4

Show your work below by printing screen for the last step.


命令编辑器 5 - DB2COPY1
命令编辑器(C) 所选项(S) 编辑(E) 视图(V) 工具(T) 帮助(H)
命令 查询结果 访问方案
控制中心 - DB2COPY1
控制中心(C) 所选项(S) 编辑(E) 视图(V) 工具(T) 帮助(H)
对象视图
控制中心
所有系统
所有数据库
SAMPLE
表
视图
别名
昵称
高速缓存对象
触发器
模式
索引
表空间
事件监视器
缓冲池
应用程序对象
用户和组对象
联合数据库对象
XML 模式存储库
DB2 消息
已尝试命令
L IBMDEFAULTBP DROPPED TABLE RECOVERY OFF
DB20000
命令成功完成。
说明:
此命令的执行期间没有遇到错误。
用户响应:
不需要执行任何操作。
关闭
管理者
自动存储器
数据库 是 是
数据库 是 是
数据库 是 是
数据库 是 是
系统 是 否
数据库 是 是
数据库 否 否
显示了 7 项(共 7 项)
缺省...
视图
---------- 输入的命令 ----------
select tbsp_name, tbsp_id, container_name, container_id,
container_type
from sysibmadm.snapcontainer order by tbsp_id
单个查询的结果显示在"查询结果"选项卡上。
语句终止字符
;
开始
控制中心 - DB2COPY1
命令编辑器 5 - D...
10:16


命令编辑器 5 - DB2COPY1
命令编辑器(C) 所选项(S) 编辑(E) 视图(V) 工具(T) 帮助(H)
控制中心 - DB2COPY1
显示相关的 - DMSO1
显示 SQL - 表空间 - JLU-29E0FDF8B31 - DB2 - SAMPLE -...
CONNECT TO SAMPLE;
SELECT DISTINCT A.TABSCHEMA, A.TABNAME, A.TYPE, A.TBSPACE, A.INDEX_TBSPACE,
A.LONG_TBSPACE, A.DATACAPTURE, A.DEFINER, A.REMARKS, A.CARD, A.STATS_TIME FROM
SYSCAT.TABLES A, TABLE (SELECT COUNT(*) AS NUM_COLUMNS FROM
SYSCAT.DATAPARTITIONEXPRESSION S WHERE A.TABNAME = S.TABNAME AND A.TABSCHEMA =
S.TABSCHEMA) AS PARTITION_COLUMNS WHERE (A.TYPE='T' AND
((PARTITION_COLUMNS.NUM_COLUMNS > 0 AND 'DMSO1' IN (SELECT C.TBSPACE FROM
SYSCAT.DATAPARTITIONS B, SYSIBM.SYSTABLESPACES C WHERE B.TBSPACEID =
C.TBSPACEID AND A.TABNAME = B.TABNAME AND A.TABSCHEMA = B.TABSCHEMA UNION ALL
SELECT C.TBSPACE FROM SYSCAT.DATAPARTITIONS B, SYSIBM.SYSTABLESPACES C WHERE
B.LONG_TBSPACEID = C.TBSPACEID AND A.TABNAME = B.TABNAME AND A.TABSCHEMA =
B.TABSCHEMA UNION ALL SELECT E.TBSPACE FROM SYSCAT.INDEXPARTITIONS D,
SYSCAT.TABLESPACES E WHERE D.INDPARTITIONTBSPACEID=E.TBSPACEID AND
A.INDEX_TBSPACE IS NOT NULL)OR (A.TBSPACE='DMSO1'OR A.INDEX_TBSPACE='DMSO1'
AND (SELECT count(E.TBSPACE) FROM SYSCAT.INDEXPARTITIONS D , SYSCAT.TABLESPACES
E WHERE D.INDPARTITIONTBSPACEID=E.TBSPACEID and e.tbspace='DMSO1')>0) OR
A.LONG_TBSPACE='DMSO1'))) FOR FETCH ONLY;
CONNECT RESET;
关闭
保存(S)...
帮助
---------- 输入的命令 ----------
select tbsp_name, tbsp_id, container_name, container_id,
container_type
from sysibmadm.snapcontainer order by tbsp_id
单个查询的结果显示在"查询结果"选项卡上。
语句终止字符
开始
控制中心 - DB2COPY1
命令编辑器 5 - D...
10:17

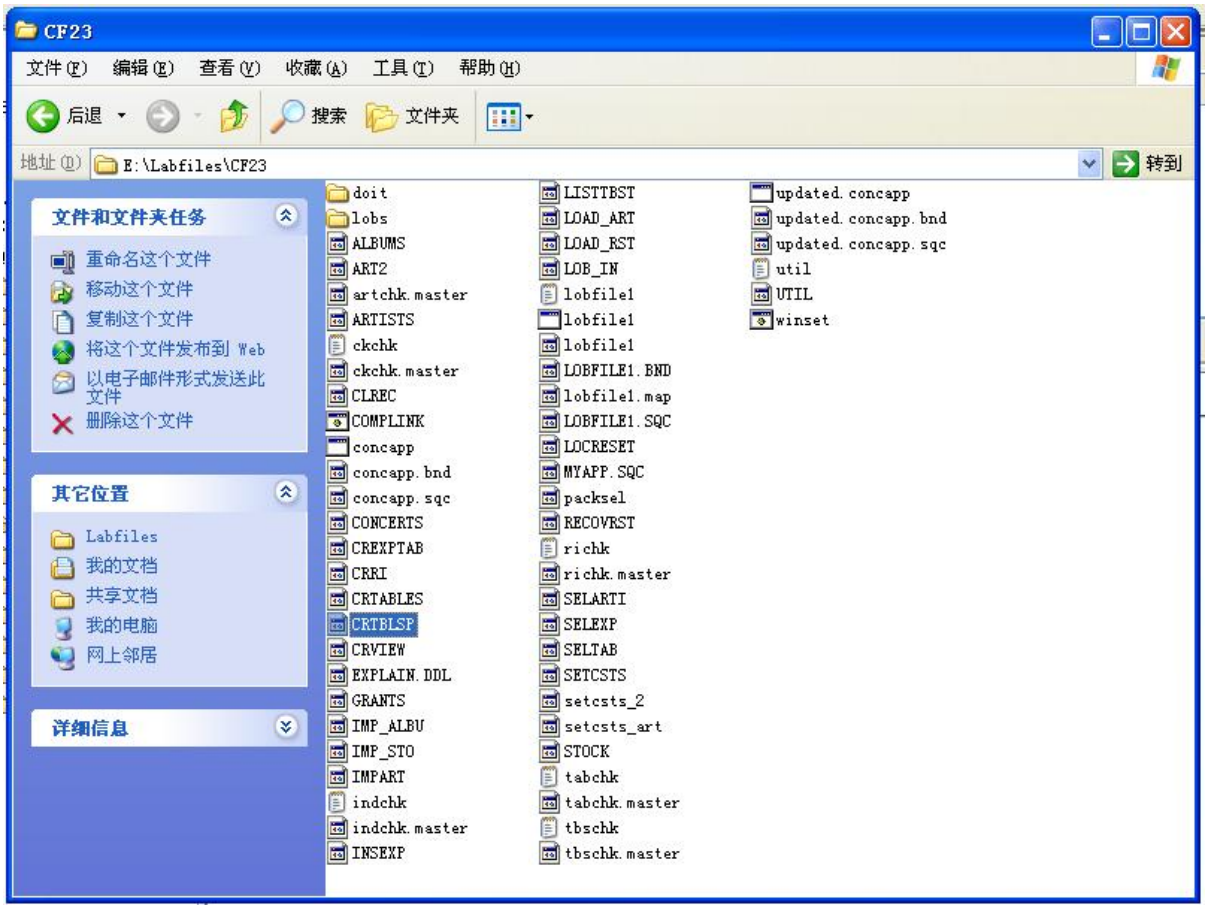
2. Verify your new table space (DMS01) by listing table spaces.
Show your work below by printing screen.

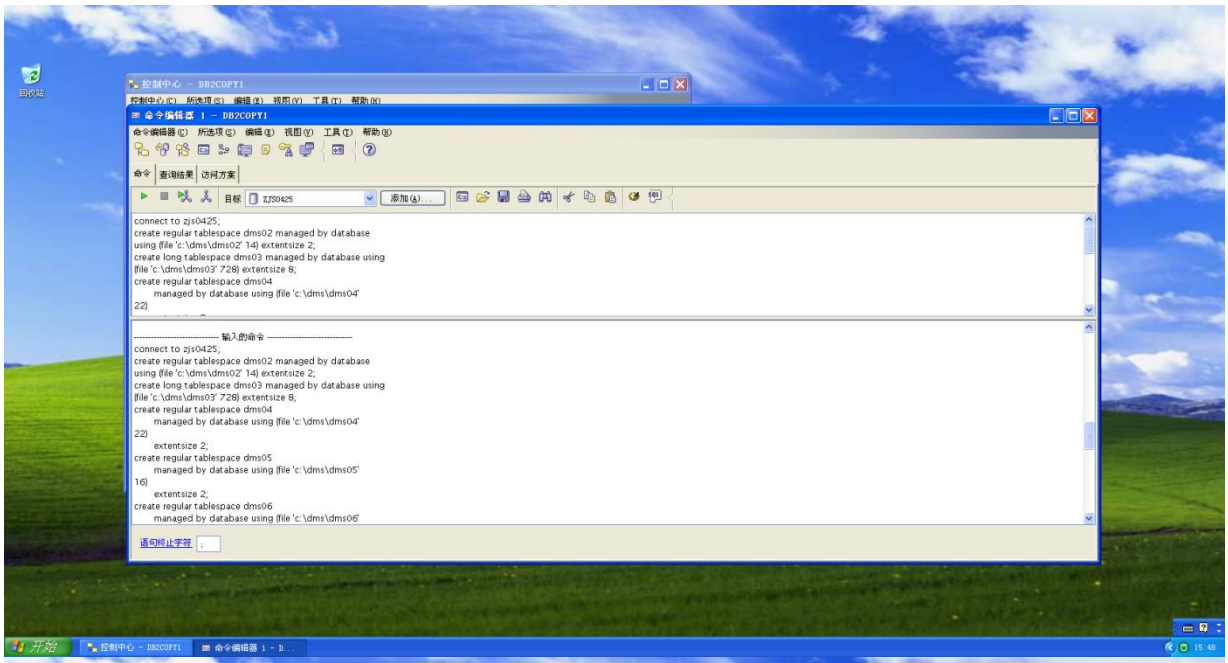


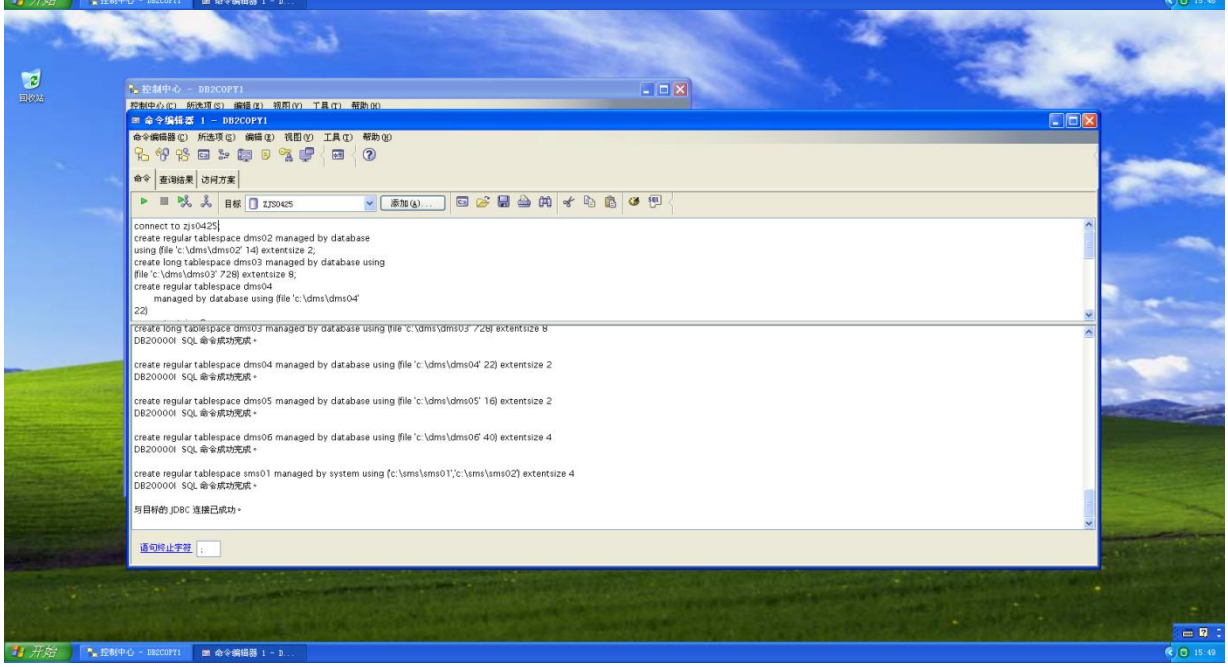
3. On your Windows Database Server, a script file named crtblsp contains SQL statements to create your additional table spaces.
4. Execute the script file to create your remaining table spaces.
Make sure you have the following options set before executing the script:

- Auto commit should be enabled.
- Execution should be stopped if there is an error.
- Commands and statements should be echoed back to the screen.
- A semicolon should be used as the termination character.

Show your work below by printing screen.



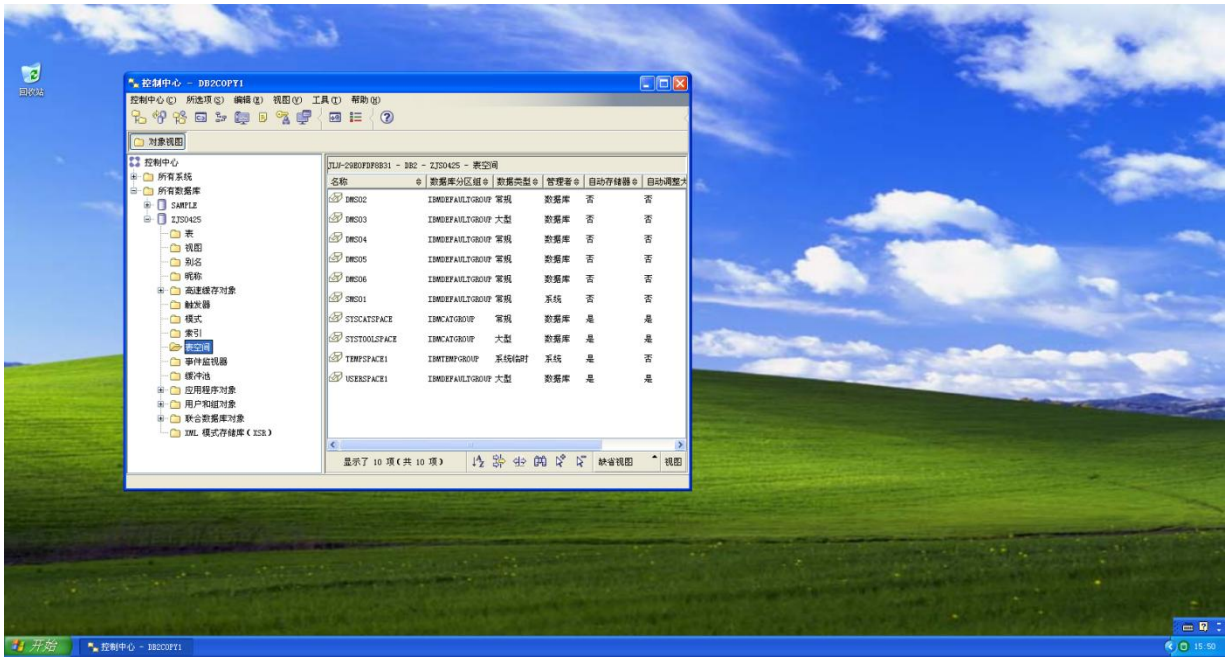




5. Confirm that the additional six table spaces are present. Are your new table

space names listed?

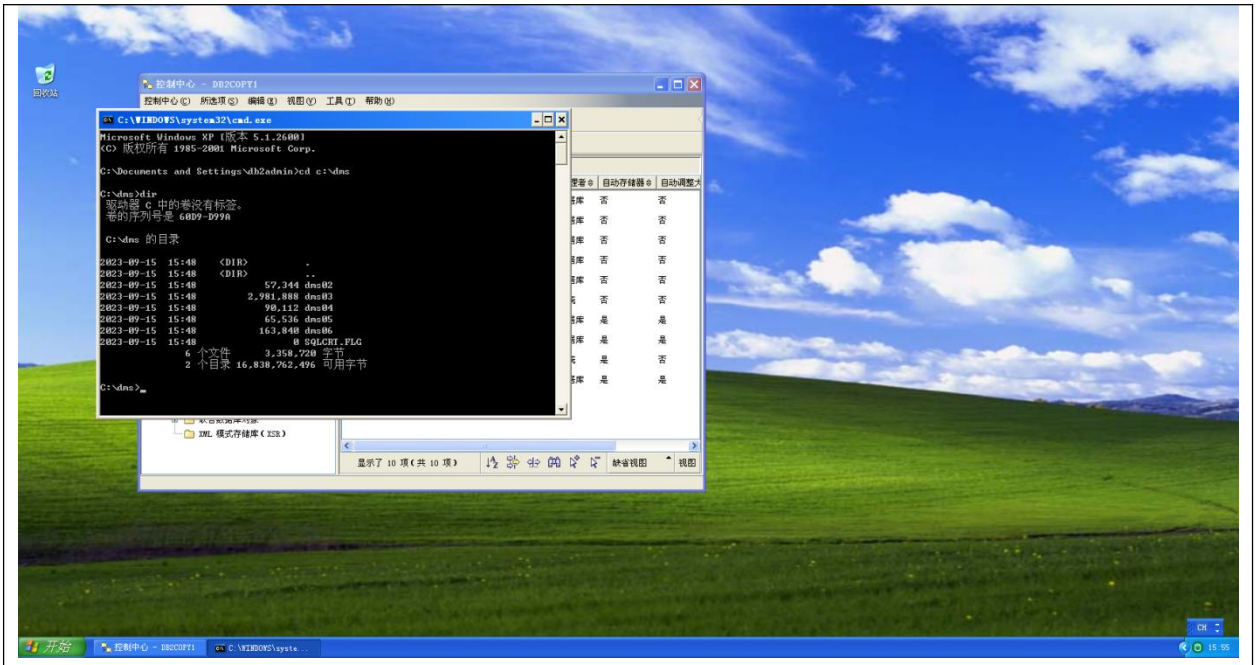
Show your work below by printing screen.



6. From your command window, change directories to C:\dms and do a list of the files.

7. What are these files?

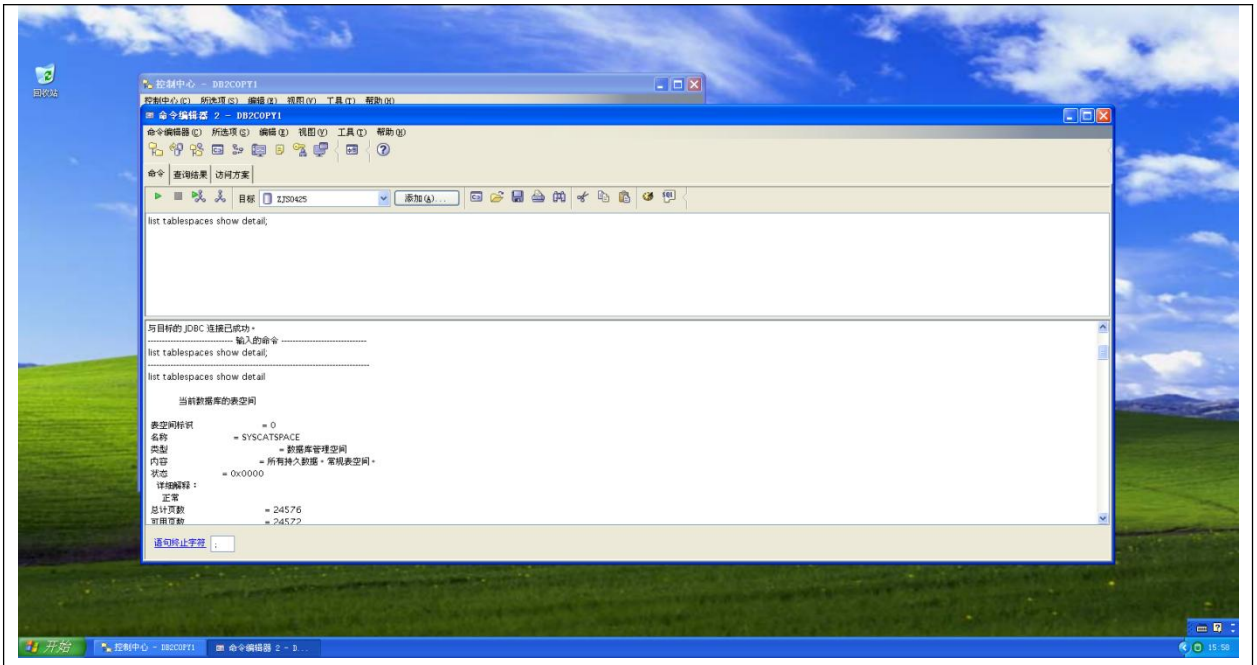
Show your work below by printing screen.



The files are the containers for the DMS table spaces

8. Display detailed information about the table spaces. You must be connected to the database first.

Show your work below by printing screen.



9. What ID numbers are associated with each of the table spaces? How many usable pages are there in the DMS table spaces? List a few differences between SMS and DMS table spaces.

SYSCATSPACE — ID 0

TEMPSPACE — ID 1

USERSPACE1 — ID 2

SYSTOOLSPACE — ID 3

DMS01 — ID 4 — 1000

DMS02 — ID 5 — 12

DMS03 — ID 6 — 720

DMS04 — ID 7 — 20

DMS05 — ID 8 — 14

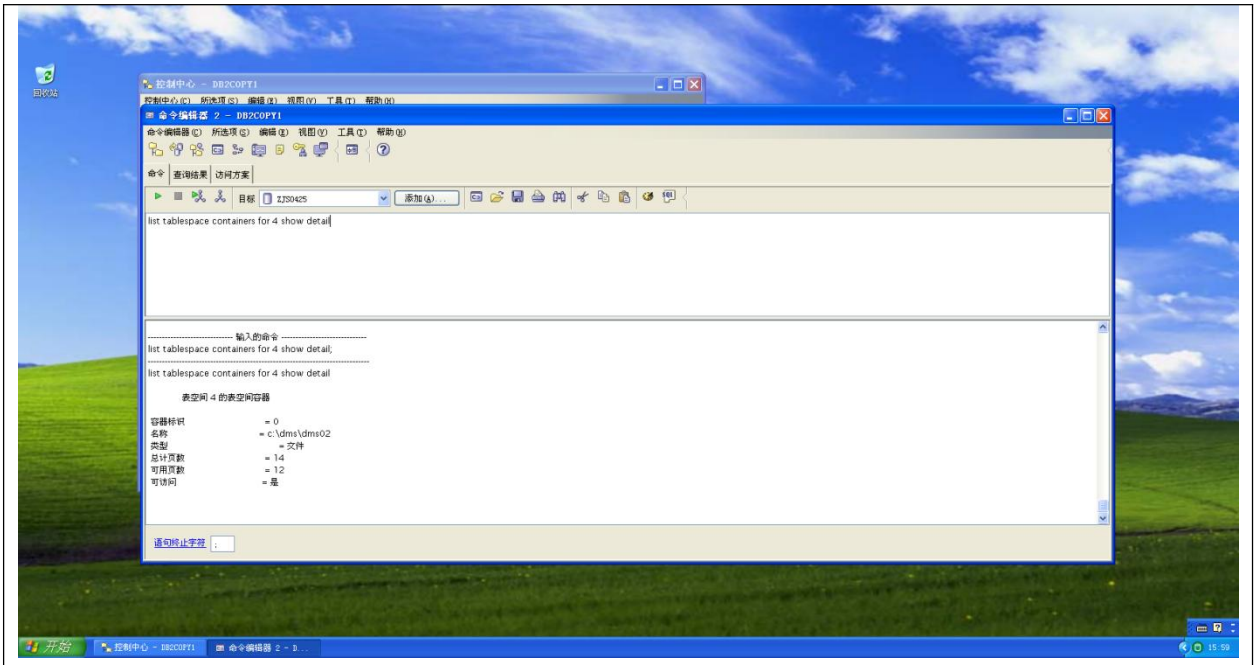
DMS06 — ID 9 — 36

SMS01 — ID 10

SMS table spaces do not use preformatted containers. Space will be allocated until the file system is full. DMS table spaces preallocate all space.

10. Show the container information for table space ID 4. What type of container is this and where it is located?

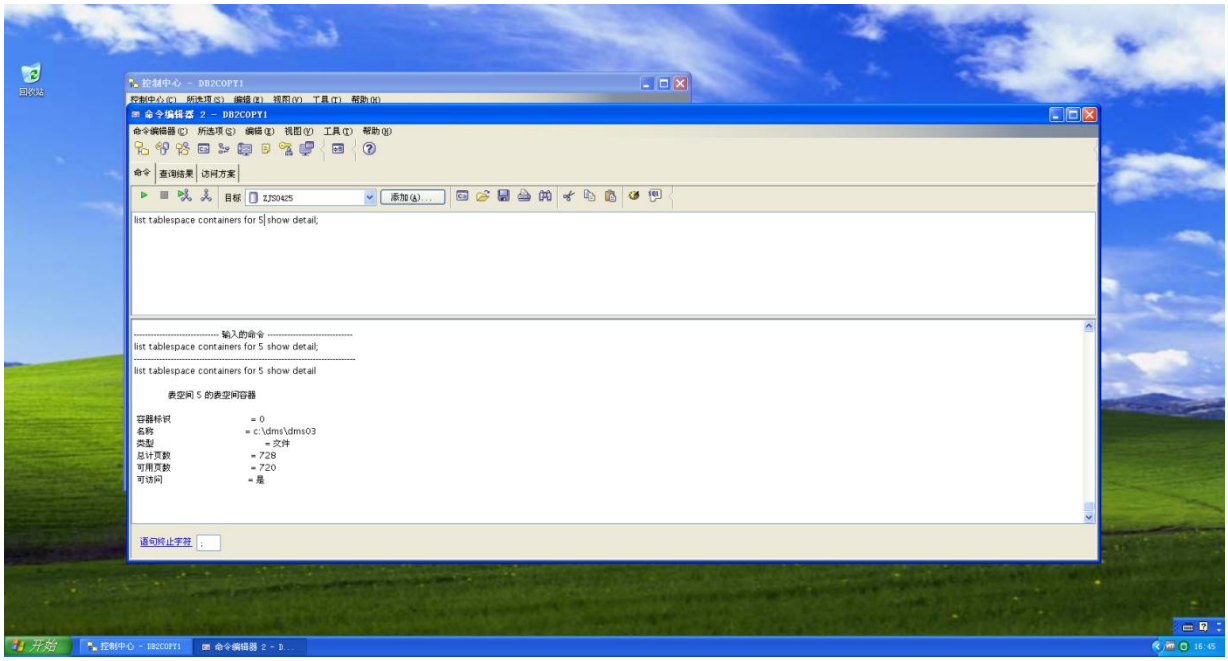
Show your work below by printing screen.



This is a file container, and it is located at . C:\dms\dms01.

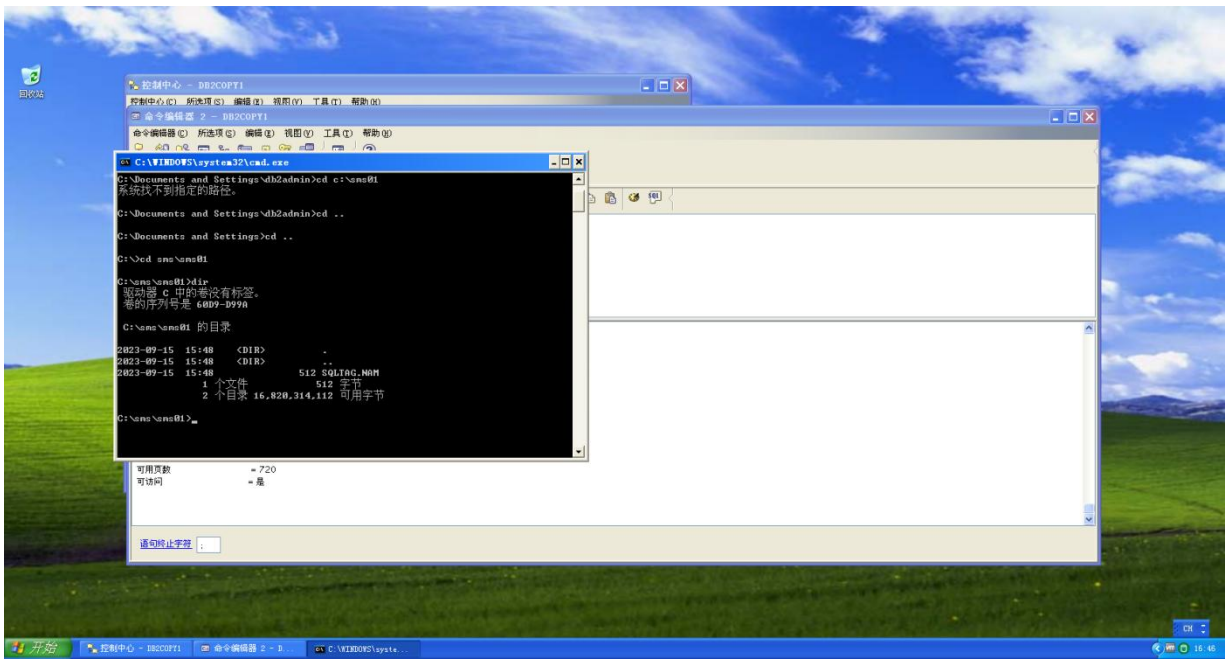
11. Show the container information for your SMS table space ID 10. What type of containers are being used and where are they?

Show your work below by printing screen.



It is a directory path container located at C:\sms\sms01

12. From your command window, change directories to SQLT0000.0 and list the directory.



13. Table data is stored in .DAT files, indexes in .INX files, and LOB info in .LB and .LBA files. And there is an SQLTAG.NAM file that holds overhead information about this container, and the tables that are found there.
Show your work below by printing screen.

Currently there are no tables in this table space.

14. From your ssh/telnet session to the database server, create a table and an index on that table in this table space. And then list the contents of the directory again. What do you see now? Are the new files named after the table name?

You will see two new files: SQL00002.DAT and SQL00002.INX, one for the table
and one for all indexes on that table.
No — the files not named after the table (t). Note the this first table is numbered 00002 and the file containing the index (and all indexes, if there were more than one) has the same numbering. The next table created would be named SQL00003.DAT.

15. Drop table t as it is no longer needed.
Show your work below by printing screen.

db2 drop table t

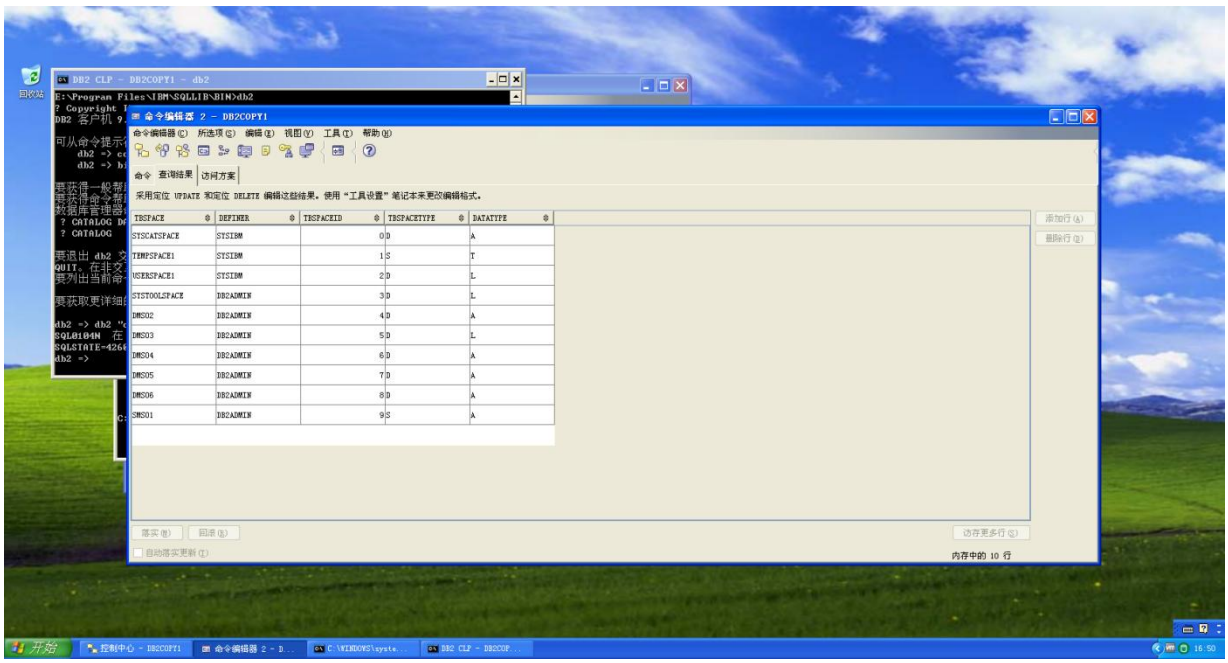
16. Table space information is accessible through a view with the name SYSCAT.TABLESPACES. The fields that contain table space information are:

- TBSPACE — Name of primary table space for this table
- DEFINER — Authid of table space creator
- TBSPACEID — Internal table space identifier
- TBSPACETYPE — Type of table space. D for DMS or S for SMS.
- DATATYPE — Type of data that can be stored in the table space.

L for long data only, A for all types of permanent data, or T for temporary tables only. Issue a select from SYSCAT.TABLESPACES to answer the following questions.

```
select substr(tbspace,1,18) as tbspace, substr(definer,1,10)
as definer, tbspaceid, tbspacetype, datatype from
syscat.tablespaces
```

Show your work below by printing screen.



17. What is the authorization ID of table space definer for the default table spaces?

DEFINER=SYSIBM

18. Which of the various table spaces allows long data types?

USERSPACE1, SYSTOOLSPACE, and DMS03 table spaces allow long data.

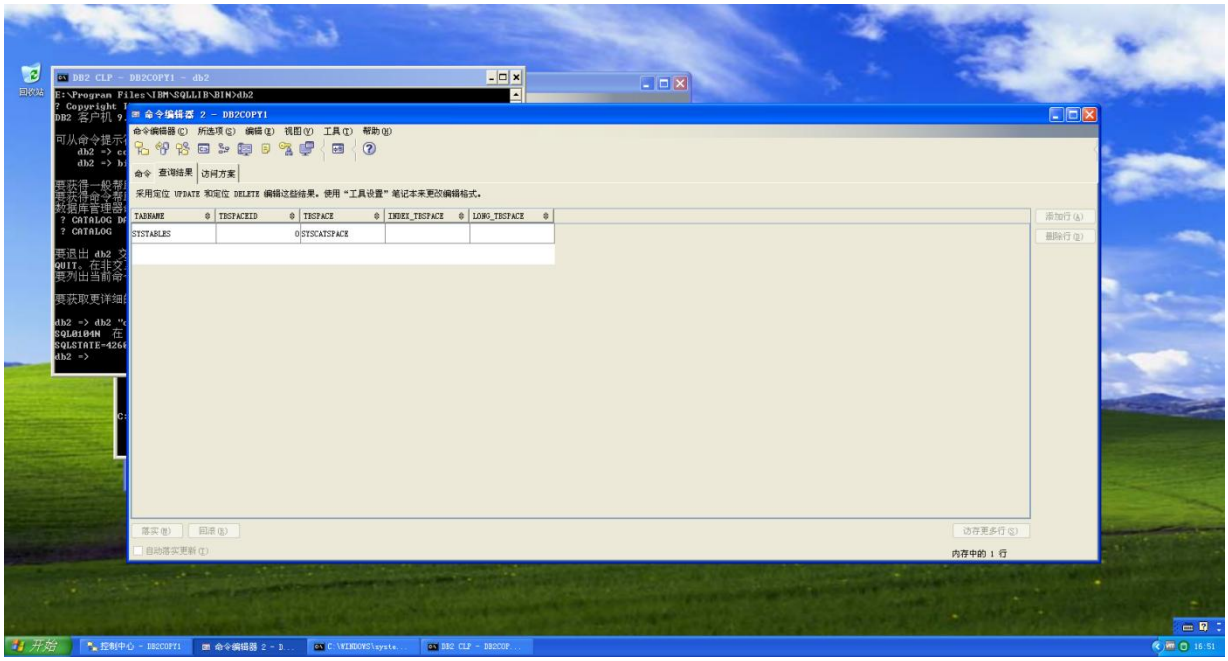
19. Which table space only allows temporary table data?

TEMPSPACE1 only allows temporary table data.

20. Table space information for individual tables can be accessed through the SYSCAT.TABLES view. The fields that contain table space information are:

- •TBSPACEID — Table space ID of primary table space for this table
- •TBSPACE — Name of primary table space for this table
- •INDEX_TBSPACE — Table space containing the indexes for this table
- •LONG_TBSPACE — Table space containing LONG or LOB data for this table

List the table space information for the table SYSIBM.SYSTABLES.
Show your work below by printing screen.



21. Is the SYSIBM.SYSTABLES table divided between different table spaces?

No. But this is not something you can easily determine from the information that you are viewing.
In previous releases (V8.2 and earlier), the answer would be easier, since with those releases, catalog tables were stored in SYSCATSPACE and that table space was SMS. And, a table cannot be divided between table spaces if SMS

is being used.

22. Enter connect reset to break your database connection.
Show your work below by printing screen.