AutoCAD ® Self-paced Learning Modules

AutoCAD Customization

Module 5

Slides and Script Files

Why is it **Important** for you to learn this task?

RATIONALE:

If an AutoCAD drawing has to be viewed but not edited, it is much faster to display a *slide file* rather than load the drawing file. Slide files can be used for demonstrations and for creating icons to be used in Image Tiles

A series of AutoCAD commands and parameters can be written in a *script file* and then executed with a single SCRIPT command. Script files can save time by executing a number of commands that are required frequently.

Here is what you will be able to do when you complete each **Step** of this learning activity package:

OBJECTIVE(S):

1. Describe the AutoCAD file types.
   Describe AutoCAD slides and apply the commands MSLIDE and VSLIDE.
   Describe AutoCAD script files and apply the commands SCRIPT, DELAY, RESUME, GRAPHSCR, TEXTSCR, and RSCRIPT.

To show that you have **Mastered** this task, here is what you will be asked to do:

PERFORMANCE EVALUATION:

1. Complete Self-Test No. 1 with 100% accuracy
2. Complete Lab Exercise L0830-01 with 100% accuracy.
2. Complete Lab Exercise L0830-02 with 100% accuracy.
2. Complete Lab Exercise L0830-03 with 100% accuracy.
2. Complete Lab Exercise L0830-04 with 100% accuracy.

OBJECTIVE NO. 1

When you complete this objective you will be able to:

Describe the AutoCAD file types.
Describe AutoCAD slides and apply the commands MSLIDE and VSLIDE.
Describe AutoCAD script files and apply the commands SCRIPT, DELAY, RESUME, GRAPHSCR, TEXTSCR, and RSCRIPT.

Complete each of the learning activities listed below.

LEARNING ACTIVITIES

DO the following things:	**USE** the following resources:
1. Read Information Sheet No. 1.	Pages 3 to 12 of this module
2. Complete Self-Test No. 1.	Page 13 of this module.
3. Check your answers to Self-Test No. 1 and correct any errors.	Page 18 of this module.
4. Complete Lab Exercise L0830-01.	Page 14 of this module.
5. Check your script file for Lab Exercise L0830-01 and correct any errors.	Page 19 of this module.
6. Complete Lab Exercise L0830-02.	Page 15 of this module.
7. Check your script file for Lab Exercise L0830-02 and correct any errors.	Page 19 of this module.
8. Complete Lab Exercise L0830-03.	Page 16 of this module.
9. Check your script file for Lab Exercise L0830-03 and correct any errors.	Page 20 of this module.
10. Complete Lab Exercise L0830-04.	Page 17 of this module.
11. Check your script file for Lab Exercise L0830-04 and correct any errors.	Page 20 of this module.

INFORMATION SHEET NO. 1

AutoCAD FILE EXTENSIONS

AutoCAD uses a number of different file types as the software is being used. You must use the correct file extension when creating or using these files.

The user never supplies the file extension when working inside the AutoCAD environment. When working outside the AutoCAD environment however, the file extension must be used.

For example, when you create a script file using a text editor, you must name the file <name>.SCR (ie. *drawline.scr*). When you run this program from AutoCAD, all you supply is DRAWLINE, when prompted for the name. AutoCAD automatically adds the file extension when it searches for the file on the disk. This is done transparent to the user.

The list below contains the AutoCAD file extensions that you will be using in this course:

.bak - Drawing backup files
.cfg - Configuration file
.dwg - Drawing files
.dxb - Binary drawing interchange files
.dxf - Drawing interchange files (ASCII or binary)
.dxx - Attribute extract files (DXF format)
.lin - Linetype library files
.lsp - AutoLISP application files
.mnc - Compiled menu files (Windows only)
.mnd - Menu definition files (for use with the mc executable)
.mnl - Menu AutoLISP files
.mnr - Menu resource files (Windows only)
.mns - Menu source files (Windows only)
.mnu - Menu template files
.mnx - Compiled menu files (DOS only)
.pat - Hatch pattern library files
.pgp - Program parameters file
.scr - Command script files
.shp - AutoCAD shape/font source files
.shx - Compiled shape/font files
.slb - Slide library files
.sld - Slide files
.txt - Attribute extract or template files (CDF/SDF format)

AutoCAD SLIDES

An AutoCAD *slide* is a file consisting of a 'snapshot' of the display on the screen at the time the slide was created. It is a map of the pixels (dots) on the screen, containing their location and color and is called a raster file. Slide files have the file extension *.sld*.

A slide can be displayed on the screen quickly because it is a raster file. No calculations are required to display it, all the computer has to do is change the colors of the pixels on the screen.

Slides can be used in a variety of ways but their main use is for slide shows and image tile menus.

To make a slide, activate a drawing or draw the necessary geometry in AutoCAD, then zoom or pan the drawing until the slide you want to create is displayed on the screen. Use the MSLIDE command to create a slide file.

A slide displayed on the screen using the VSLIDE command cannot be edited in any way, only viewed. You can use the REDRAW command to remove a slide from the screen and return to the previous display of the current drawing.

AutoCAD Command - MSLIDE

DESCRIPTION

The MSLIDE command is used to create a slide file of the current screen display.

The slide will contain only what is displayed on the screen at the time this command is issued. Objects on layers that are off or frozen will not be included in the slide.

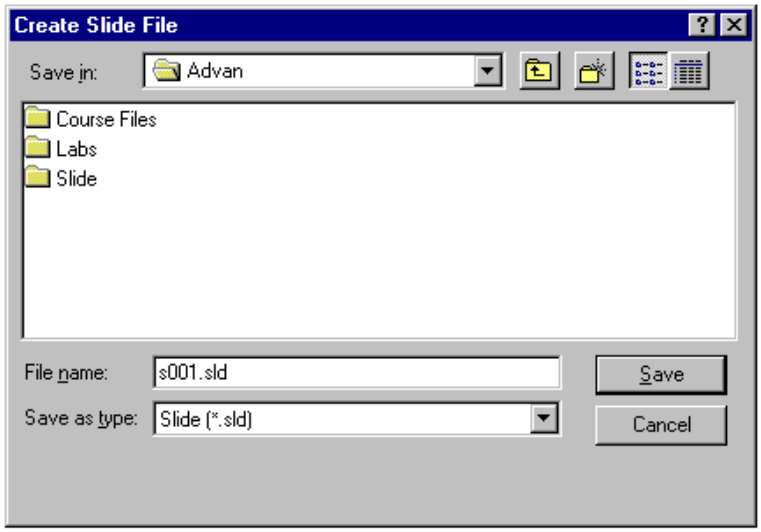
OPTIONS

None

EXAMPLES

Example No. 1

Command: **MSLIDE**



{In this example, a slide file of the current screen display is created. It is named *s001.sld* and is saved in the folder c:\Advan.}

AutoCAD Command - VSLIDE

DESCRIPTION

The VSLIDE command is used to display a slide file on the screen.

When you enter the VSLIDE command, the Select Slide File dialogue box is displayed as show in Example No. 1. You must specify the slide file you wish to display.

Use the REDRAW command to remove a slide from the screen and return to the previous display of the current drawing.

When a slide is displayed, it is first loaded into memory and then displayed. You can speed up the process by loading one slide into memory while you are displaying another. This is done by placing an asterisk (*) before the name. The next VSLIDE command will then display the loaded slide. This method should be used when running slide shows. Slide shows are covered later in this module.

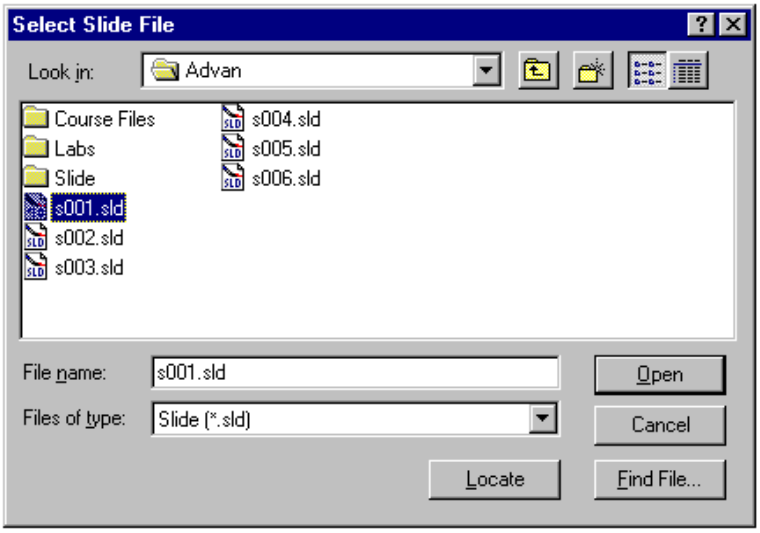
OPTIONS

None

EXAMPLES

Example No.1

Command: **VSLIDE**



{In this example, the slide file *s001.sld* in the folder c:\Advan will be displayed.}

AutoCAD SCRIPT FILES

An AutoCAD *script* is a text file that can be read by AutoCAD. A script file contains a series of AutoCAD commands and parameters that can be executed with one SCRIPT command.

When a script file is executed, AutoCAD reads the file and treats it as though you had typed it directly from the keyboard.

Script files can be used for many things, such as running slide shows, entering standard notes on the drawing or setting up drawing parameters such as limits, layering schemes, standard text styles, etc.

A script file is an ASCII text file created with a text editor (Notepad) or word processor. It must have the file extension *.scr*.

It is very important where you place spaces in a script file. A space is the same as pressing the ENTER key in AutoCAD and you can use them for this in your script files. If you place spaces at the end of a line in a script file, it is impossible to see when proof reading the file or debugging it. Place any spaces at the beginning of the line or embedded in the line.

The end of each line in the script file is also an ENTER in AutoCAD. If you need more than one ENTER at the end of a line you can insert blanc lines.

There is no provision for user input in a script file. If a script file contains an edit command that requires objects to be selected, you can indicate the pick point by entering an X,Y coordinate or you can use the *window* or *crossing* option and enter the X,Y coordinates of the two corners.

Any line that starts with a semicolon (;) is ignored by AutoCAD when the script file is processed and can therefore be used as a comment in the file.

EXAMPLES

Example No. 1

```
; File name:  box.scr
; This file draws a 4 x 2 rectangle
;
LINE
4,4 @4,0 @0,2 @-4,0 C
REDRAW
;
; End of file
```

{In this example, the script file will draw a rectangle with the lower left corner at X4,Y4 and then REDRAW the screen. The spaces embedded in the line are treated as pressing ENTER. AutoCAD also reads an ENTER at the end of each line. Remember, all lines starting with a semicolon (;) are ignored and are used as a comment line in the text file.}

Example No. 2

```
; File name:  slayer.scr
;
LAYER M 5 C RED 5

CIRCLE 2,2 D 2.5
;
; End of file
```

{In this example, it is necessary to press ENTER twice at the end of the LAYER command, once to enter the '5' and then again to exit back to the command: prompt. The blank line in the script file is used as the second ENTER.}

Example No. 3

```
; File name:  tblok1.scr
;
LIMITS

17,11
ZOOM A
LINE .5,.5 16.5,.5 16.5,10.5 .5,10.5 C
REDRAW
SCRIPT SLAYER
;
; End of file
```

{In this example, the blank line after the LIMITS command is used as the ENTER to accept the default 0,0 for the lower left corner. The last line will run another script file *slayer.scr* using the SCRIPT command which is described later in this module. It is possible to run any number of script files in series in this manner.)

Example No. 4

```
; File name:  note1.scr
;
TEXT
@
 NOTE:
 1. ALL DIMENSIONS ARE IN MILLIMETRES
 2. MATERIAL STEEL
REDRAW
;
; End of file
```

{In this example, a script file is used to insert a standard note into the drawing. The '@' character is used to start the first text line at the last location entered. **This location can be entered using the ID command, just before the script file is run**. The two spaces at the beginning of the first line of text will accept the default Text Height and Rotation Angle. The two spaces at the beginning of each of the next two lines of text will repeat the TEXT command and insert the text one line down.}

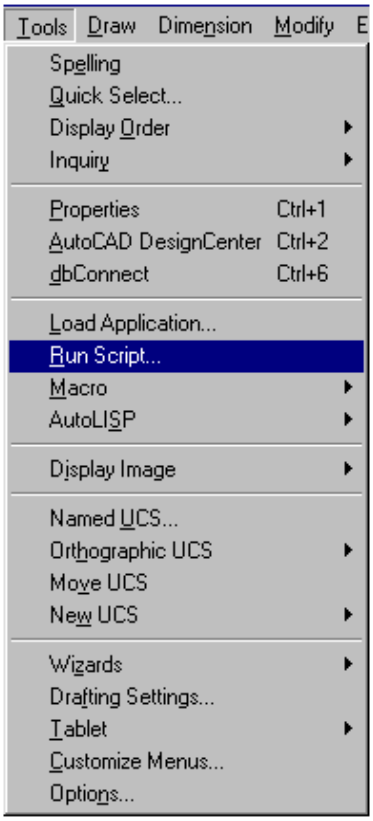
Example No. 5

```
; File name:  startup1.scr
;
INSERT MOD-A3 0,0 100 100 0
LIMITS 0,0 42000,29700
ZOOM A
LAYER N OBJECT,TEXT,DIM,CENTER,HIDDEN
C RED OBJECT C CYAN TEXT C GREEN DIM C BLUE CENTER,HIDDEN
LT CENTER CENTER LT HIDDEN HIDDEN
S TEXT

TEXT 23500,2200 250 0 J. STUDENT
TEXT 33200,2200 250 0 1:100
LAYER S OBJECT

REDRAW
;
; End of file
```

{This example shows how you could use a script file to insert a certain sized prototype drawing suitable for drawing at a scale of 1:100. The limits are set to suit the drawing size and scale, a layering scheme is established and standard text is inserted. The blank lines are used as the ENTER required to exit out of the LAYER command. Other standard drawing items could be included in this script file.}

AutoCAD Command - SCRIPT (SCR)

DESCRIPTION



The SCRIPT command is used to execute a script file.

You must enter the file name when prompted.

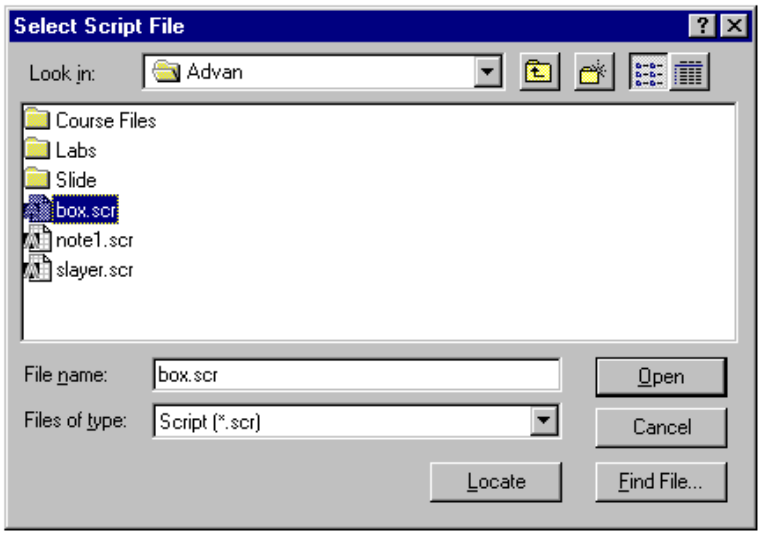
OPTIONS

None

EXAMPLES

Example No. 1

Command: **SCRIPT**



{In this example, the script file *box.scr* in the folder c:\advan is executed.}

AutoCAD Command - DELAY

DESCRIPTION

The DELAY command is used to temporarily halt the execution of a script file. This command is inserted to control the execution speed of the script file.

OPTIONS

number The *number* option is used to indicate the number of milliseconds to delay the script file. A value of 2000 will delay the script file 2 seconds. The maximum *number* that can be entered is 32767. A delay of more than 32 seconds requires more than one DELAY command.}

EXAMPLES

Example No. 1

Command: **DELAY**
Delay time in milliseconds: **5000**

{In this example, the script file is halted for 5 seconds.}

AutoCAD Command - RESUME

DESCRIPTION

The RESUME command is used to restart a script file that has been stopped. This command is entered on the keyboard.

A script file can be stopped by pressing the ESC key or the BACKSPACE key. If the script file has been stopped, it can be started, at the location it was stopped, with the RESUME command.

OPTIONS

None

EXAMPLES

Example No. 1

Command: **RESUME**

{In this example, a script file that has been stopped, is resumed.}

AutoCAD Command - GRAPHSCR

DESCRIPTION

The GRAPHSCR command is used to flip from the text screen to the graphics screen. This is the same as pressing the F2 function key.

OPTIONS

None

EXAMPLES

Example No. 1

Command: **GRAPHSCR**

{In this example the graphics screen will be displayed.}

AutoCAD Command - TEXTSCR

DESCRIPTION

The TEXTSCR command is used to flip from the graphics screen to the text screen. This is the same as pressing the F2 function key.

OPTIONS

None

EXAMPLES

Example No. 1

Command: **TEXTSCR**

{In this example the text screen will be displayed.}

AutoCAD Command - RSCRIPT

DESCRIPTION

The RSCRIPT command is used restart a script file at the beginning.

This command can be placed at the end of a script file to cause it to restart at the beginning. This allows you to run continuous slide shows or other script files.

The RSCRIPT command must be the last line in the script file.

OPTIONS

None

EXAMPLES

Example No. 1

```
; File name: slishow1.sld
; This script file runs a slide show
;
VSLIDE S001
VSLIDE *S002
DELAY 5000
VSLIDE
VSLIDE *S003
DELAY 4000
VSLIDE
VSLIDE *S004
DELAY 4000
VSLIDE
VSLIDE *S005
DELAY 4000
VSLIDE
DELAY 6000
RSCRIPT
;
; End of file
```

{This example shows how to use a script file to run a slide show. The first line displays the slide S001. The second line pre-loads the slide S002 into memory. The third line halts the execution of the script file for 5 seconds while slide S001 is viewed. The fourth line displays the slide loaded in memory. The RSCRIPT command in the last line will keep the script file repeating until the ESC key is pressed.}

SELF-TEST NO. 1

DIRECTIONS

1. Answer the following questions.
2. Compare your answers to the enclosed answer key.
3. If you disagree with any of the answers, review the learning material and/or check with your instructor.
4. If no problems arise continue with the next step.

1. What file extension names does AutoCAD use for the following:

   Slide file _____

   Slide library file _____

   Drawing interchange file _____

   Hatch pattern library file _____

   Script file _____

   Linetype library file _____

   AutoLISP application file _____

   Compiled menu file _____

2. A slide is a _____ of the display on the screen and is called a _____ file.

3. The main use of slides is for _____ _____ and _____ _____ _____.

4. The _____ command is used to create a slide file of the current screen display.

5. A slide cannot be _____, only viewed.

6. The _____ command is used to display a slide.

7. You can use the _____ command to remove a slide from the screen.

8. You can pre-load a slide into memory by placing an _____ before the name.

9. A script file contains a series of AutoCAD _____ and _____ that can be executed with one _____ command.

10. A space in a script file is the same as _____ _____ in AutoCAD.

LAB EXERCISE NO. 1

Lab Exercise L0830-01

Name:_____
Date:_____

NOTE: Script files are written exactly as you would enter the commands and parameters at the command line. If you are unsure of the prompt sequences, enter the commands manually first and note the prompts. Some commands, such as LAYER, will display a dialogue box when entered. If you prefix these commands with a '-' (-LAYER), the dialogue box is not displayed and you can enter parameters at the command line.

Description

1. Write an AutoCAD script file named L0830-01 that will do the following:

   a) Set the limits for a size A3 drawing (420 x 297)

   b) Draw a border on the drawing using a closed polyline set for a width of 1 mm. Draw the border 10 mm from the edge of the drawing sheet.

   c) ZOOM the whole drawing onto the screen.

   d) Set the GRID spacing at 40 units.

   e) Set the SNAP spacing at 20 units.

   f) Switch to the text screen, hold for 3 seconds and then switch back to the graphics screen.

   g) Insert the drawing MOD-A3 at coordinates X0,Y0.

2. Run the script file in AutoCAD to test it and correct if necessary.

   NOTE: If your script file fails, switch to the text screen and check through the sequence of commands, prompts and the responses supplied by the file. If you check carefully you will probably find an inappropriate response to a prompt which should alert you to the error in the file. It is important to be able to de-bug your files and this is an effective way to accomplish this.

   Try to de-bug your files before you look at the answer key and remember, there are many ways to write these files. Yours may not be the same as the answer key, the important thing is to get it working.

LAB EXERCISE NO. 2

Lab Exercise L0830-02

Name:_____
Date:_____

Description

1. Write an AutoCAD script file named L0830-02 that will do the following:

   a) Create the following layers:

      i) Name - 0 Color - Cyan Ltype - Continuous
      ii) Name - 5 Color - Red Ltype - Dashed
      iii) Name - 10 Color - Green Ltype - Hidden
      iv) Name - 15 Color - Yellow Ltype - Continuous
      v) Name - 20 Color - Blue Ltype - Center
      vi) Name - 25 Color - Magenta Ltype - Continuous

   b) On each layer, insert a solid circle (using the DONUT command) with a diameter of 50, at the following locations:

      i) Layer 0 - 50,50
      ii) Layer 5 - 150,200
      iii) Layer 10 - 250,250
      iv) Layer 15 - 200,75
      v) Layer 20 - 300,150
      vi) Layer 25 - 350,50

   c) Set the active layer to 15.

   d) Delay the script file for 3 seconds.

   e) Erase the DONUTs from the drawing leaving the title block untouched.

   f) Start the script file over again.

2. Run the script file L0830-01 and then run this script. If you have not completed Lab Exercise L0830-01, do it now.

LAB EXERCISE NO. 3

Lab Exercise L0830-03

Name:_____
Date:_____

Description

1. Write an AutoCAD script file named L0830-03 that will do the following:

   a) Create a layer named Text, color Red.

   b) Make it the active layer.

   c) Insert the following text into the active drawing:

      NOTES

      1. ALL DIMENSIONS ARE IN INCHES AND FRACTIONS OF AN INCH.
      2. REMOVE ALL SHARP EDGES AND BURRS.
      3. ROUNDS AND FILLETS 0.5 RADIUS.

   d) When inserting the text, set the text height to 0.25 units and the rotation angle to zero.

2. Start a new drawing and ID the start point for the text before running the script file **(see Example No.4 on page 7)**. If it does not work, edit the file and run it again.

LAB EXERCISE NO. 4

Lab Exercise L0830-04

Name:_____
Date:_____

Description

1. Make a slide show by completing the following steps:
   a) Activate an existing AutoCAD drawing.
   b) Display it in various states of zoom and pan making a slide of each. Make 6 slides.
   c) Name the slides S001 through S006 and file them on your floppy disk.
   d) Write an AutoCAD script file named L0830-04, that will display your slides as a slide show.
   e) Insert a 2 second delay between each slide.
   f) Have the slide show automatically start over again when finished.
2. Run your script file in AutoCAD.
3. Stop the slide show and use the REDRAW command to remove the last slide from the screen.
4. Start the slide show from the point you stopped it.

ANSWER KEY

SELF-TEST # 1

1. What DOS extension names does AutoCAD use for the following:

   Slide file **sld**

   Slide library file **slb**

   Drawing interchange file **dxf**

   Hatch pattern library file **pat**

   Script file **scr**

   Linetype library file **lin**

   AutoLISP program file **lsp**

   Compiled menu file **mnc**

2. A slide is a **snapshot** of the display on the screen and is called a **raster** file.

3. The main use of slides is for **slide shows** and **image tile menus**.

4. The **MSLIDE** command is used to create a slide file of the current screen display.

5. A slide cannot be **edited**, only viewed.

6. The **VSLIDE** command is used to display a slide.

7. You can use the **REDRAW** command to remove a slide from the screen.

8. You can pre-load a slide into memory by placing an **asterisk** before the name.

9. A script file contains a series of AutoCAD **commands** and **parameters** that can be executed with one **SCRIPT** command.

10. A space in a script file is the same as **pressing ENTER** in AutoCAD.

LAB EXERCISE No.1 - L0830-01

```
;  File name: L0830-01.SCR
;
limits 0,0 420,297
pline 10,10 w 1 1 410,10 410,287 10,287 c
zoom a
grid 40 snap 20
textscr
delay 3000
graphscr
insert c:\advan\mod-a3 0,0 1 1 0
;
;  End of file
```

LAB EXERCISE No.2 - L0830-02

```
;  L0830-02.SCR
;
layer n 5,10,15,20,25
c cyan 0 c red 5 c green 10 c yellow 15 c blue 20 c magenta 25
l dashed 5 l hidden 10 l center 20 s 0

donut 0 50 50,50

layer s 5

donut 0 50 150,200

layer s 10

donut 0 50 250,250

layer s 15

donut 0 50 200,75

layer s 20

donut 0 50 300,150

layer s 25

donut 0 50 350,50

layer s 15

delay 3000 erase c 50,68 350,250

redraw rscript
;
; End of file
```

LAB EXERCISE No.3 - L0830-03

```
;  File name: L0830-03.SCR
;
layer m text c red text

text @ .25 0
NOTES



   1. ALL DIMENSIONS ARE IN INCHES AND FRACTIONS
   2. REMOVE ALL SHARP EDGES AND BURRS
   3. ROUNDS AND FILLETS 0.5 RADIUS
;
;  Note:       There are three blank lines after the text string 'NOTES'
;              There are two spaces at the beginning of the last three lines.
;
;  End of file
```

LAB EXERCISE No.4 - L0830-04

```
;  File name: L0830-04.SCR
;
vslide c:\advan\s001
vslide *c:\advan\s002
delay 2000
vslide
vslide *c:\advan\s003
delay 2000
vslide
vslide *c:\advan\s004
delay 2000
vslide
vslide *c:\advan\s005
delay 2000
vslide
vslide *c:\advan\s006
delay 2000
vslide
delay 2000
rscript
;
; End of file
```