CHAPTER 4

PRESENTATION GRAPhICS
The technical terms used in this chapter are discussed as follows:

**Export**: To save the data on disk in order to use it with another program.

**Font**: A particular type style.

**Hard copy**: The output that is produced by printer, plotter etc.

**Import**: To get from disk, the data created outside (By other programs).

**Palette**: The overall selection of colors or shades available.

**Slide show**: A list of files and other screen images used to create batch output or a screen show.
1. Introduction.

With the introduction of Overhead projectors and slide projectors as presentation tools, the monotonous speeches and lectures could become interesting, and easily understood by the audience. One of the major tasks before delivering an interesting lecture is to prepare good slides covering the important items of the subject matter. To present ideas more attractively, executives have been taking the help from professional artists to create their slides. However, time was spent on conveying the objectives of the presentation to the artist. Artists draft slides which are to be reviewed and modified. A second draft may be necessary before final approval. This process of drafting and reviewing may be repeated several times, for each slide. As the number of slides increases, this method becomes very expensive. Today, slides can be developed for a fraction of this cost using PC and presentation graphics software [25].

A presentation graphics tool usually provides A teacher (a trainer) necessary tools required to do the following:

To generate each slide of his presentation without the help of a professional artist.

To display the text with a variety of character formats (Fonts) in varying dimensions.
To be able to make some primitive drawings using a pointing device.

To provide ready made figures (clip arts) which the user can access and display on the slide that he is creating for presentations.

To display the slides in the manner the user wishes to.

To produce hard copies so that they could be used even with an Overhead projector.

To provide editing features.

To minimize the labor and production cost.

2. **PCSCOPE: A new tool.**

We have designed, developed and implemented a graphic presentation tool and christened it as PCSCOPE. PCSCOPE provides the major features of a good presentation package. This package is used by professionals as a tool for subject matter presentations. PCSCOPE is designed with user friendly interfaces and context sensitive help features. Using this packages the user can create slides, edit them and present these slides one after the other in different formats. The user can alter the sequence or mode of presentation without much difficulty. In this chapter we present the details regarding the capabilities of PCSCOPE.
2.1. Graphics hardware detection.

Being a graphic presentation tool, the PCSCOPE could run on different kinds of graphic adapters and screens. PCSCOPE initially detects the kind of display hardware present in the system and selects the appropriate graphic mode for the presentation. If the graphic display is either EGA or VGA, different shades or colors could be incorporated in the presentations. The graphic images that are designed for displaying on CGA could be used without much changes on an EGA or VGA. The screens that are generated for displaying on an EGA or VGA could be shown on a CGA with less resolution and clarity.

2.2. Screen Editor.

PCSCOPE has a built in screen editor for typing out the text and for presenting the pictures. This is a screen editor with function keys which are identical to that of the popular word processor WordStar. Once a screen is generated, it is possible for editing of the text [17] with facility among several others, which include adding characters, replacing the characters with other characters, inserting text and graphics, removing text from any position on the screen.
2.3. Character display formats.

PCSCOPE provides a variety of presentation methodologies. Some of them in brief are mentioned in the following lines. About five variety of text fonts could be selected to display the text on the screen. These fonts could be selected either prior to typing out the characters, so that the new characters would be displayed with the selected fonts or the fonts could be changed for the text any time. After choosing a font, the dimension (size) of the character that is to be displayed could be changed. The height and width of these characters could be increased or decreased with the help of arrow keys on the key board. Provision is given to display the text at various locations of the screen, irrespective of the order in which they are typed out. The characters could be moved to the desired location on the screen with the help of arrow keys. Once a particular font is chosen for a single character, another font could be assigned to remaining characters, or the font corresponding to this single character itself could be altered to a new font.

If the graphics device is either VGA or EGA, the text could be displayed with varying colors by using PCSCOPE. As in the case of selection of fonts, the selection of colors also could be done randomly. For example, the sub title of the matter that is typed out on the screen could be in different color and font from that of the main title, or, could be with the same color and font as that of the main title, but with a smaller character size.
2.4. **Import external files.**

PCSCOPE can read a file that was created through WordStar or other text editors. Such imported files could be made presentable with the features of PCSCOPE. For example, the variety of attributes such as fonts, sizes and colors offered by PCSCOPE could be selected for the text that is imported.

2.5. **Drawing geometrical figures.**

While preparing a slide, one may draw circles, rectangles, lines, or arrowheads to emphasize certain things or to make the slides more attractive. PCSCOPE facilitates drawing of selected geometrical figures. A menu will be displayed showing the types of figures that are available in PCSCOPE. The figure that is selected could be enlarged or reduced and could be positioned on the screen with only a few key strokes. These figures could be placed along with the text that is already prepared. If the graphic device is able to provide colors, the figures could be drawn with different colors also. The inner side of the closed figures could be filled with a variety of filling formats that are available with this package.
2.6. Import graphic images.

Apart from providing the facility to draw geometrical figures, PCSCOPE can import the drawings that are already created and saved in standard formats. This package is capable of recognizing and displaying digitized images which are obtained as the output of scanners. The graphic image files which are stored in the standard PCX, TIF, or IMG format could be read and displayed along with the drawings or text that is already displayed on the screen. These images could be reduced and placed on appropriate places on the screen as per the user's choice so that these pictures do not overlap with the contents that are already displayed on the screen.

2.7. Clip arts.

PCSCOPE provides a set of clip arts, which could be selected and used for presentation of the subject matter. Also, the clip arts that are saved in standard formats (PCX, TIF, IMG etc.) could be recognized and used for presentation by PCSCOPE.

2.8. Saving screens.

PCSCOPE allows to prepare the screens with screen numbers in much the same way as the text is typed out page after page, in an editor. As per the choice, the user would be able to
type the text, select the colors, fonts and in varying sizes etc. These could be saved to a disk in the form of a file for future presentations. When once saved, the files could be retrieved using PCSCOPE to present the same form of the screens that were saved. These screens that are prepared using PCSCOPE could be saved also as bitmaps. The screens thus saved can be considered as a clip art and can be used in another slide after using the facility of reduction in the PCSCOPE.

2.9. Slide Show.

PCSCOPE could be used as a tool for slide show, which displays the slides (screens) already created. These slides could be shown one after the other in the order selected by the user. After showing a slide, either the earlier or the next screen could be viewed by pressing the PageUp or PageDown key on the keyboard. Once the last screen is shown, the user can cycle through the show again by starting from the beginning. We terminate the show by pressing the Escape key.


The provision for taking the output on a dot matrix printer is also available in PCSCOPE. The printing could be done in varying resolutions. The hard copy thus created could be used for producing documentation, slides or transparencies for the overhead projectors etc.
3. Conclusion.

PCSCOPE is a comprehensive tool kit that could be used by a teacher (trainer) for presenting the subject matter. This package has been standardised after testing by different teachers at different places. A novice, without much technical skill could handle this package. This is ideally suited for Indian classroom environment. The cheapest PC with CGA monitor could still be effectively used for lecture presentations using PCSCOPE.

The development methodology and the package were presented to the National Audience through CSI-91 Pre-convention tutorial on Teaching Training methodology during 1991 at New Delhi [39].