

Tutorial for dIndex Shareware evaluation copy.

Notes: This evaluation copy does not permit data to be saved.

This guide is an extract from the manual, but does not contain the illustrations which are present in the full manual.

dIndex Professional - with full colour control and barcodes.

Introduction

dIndex is an indexing database which also provides form/label filling and printing facilities and which runs in the Microsoft Windows environment.

Database records may contain an index field and up to a hundred additional named fields, and records may be sorted into alphabetical ascending or descending order on any field. Records may be retrieved from the database by searching the index field, all fields or any named fields.

dIndex can create form or label images for records in the database. Each form may contain any combination of text blocks, sequence numbers (with an optional prefix), lines, boxes, pictures, bar codes and fields from the database, and each item may be positioned anywhere on the face of the form. The user may select the fonts and styles for the index and named fields and individual text blocks, and may size the lines, boxes and pictures as required. dIndex will produce hard copy output on any of the graphics printers supported by Microsoft Windows.

dIndex allows the user to save graphics, pictures, text blocks and positioning information as form styles in disk files, and to build up a library of styles on disk. Individual index fields, named fields and text blocks may be typed at the keyboard or imported from word processing applications, such as Microsoft Word for Windows, Windows Write, Ami, etc., and pictures may be imported from applications such as Windows Paintbrush, Windows Draw, Micrografx Designer, CorelDraw, etc., through the clipboard. Records may also be imported from ASCII files created with a suitable editor/word processor, or imported via the clipboard from word processor or spreadsheet applications (such as Excel). dIndex allows the user to print out a form for either the record shown on screen, or some or all of the records from a database. This manual contains five chapters. The first explains how to install dIndex on your system. The second describes how to start dIndex. The third provides an example of the creation of a database, the searching for and printing of specific records, and describes the techniques available for editing a form's appearance; this chapter serves as an introductory tutorial. The fourth chapter is a reference chapter and provides a description of the facilities available through each of the pull-down menus on the dIndex display.

A fifth chapter describes the specific considerations which apply to label printing, where a physical page may contain more than one "logical page" of a form. An appendix provides details of the file format used for dIndex's database files. The details of the format of database files should be consulted by users wishing to transfer records between dIndex and other applications. Bar-code formats and editing are also discussed in an appendix.

System requirements

- * A microcomputer running Microsoft Windows (version 3.0 or later).
- * A graphics display screen compatible with Microsoft Windows (e.g. EGA, VGA, Hercules, MDS Genius, Sigma Designs LaserView, etc.)

* For hard copy output a graphics printer compatible with Microsoft Windows (e.g. an Epson compatible or IBM compatible graphics printer, a Hewlett Packard LaserJet or PostScript printer, etc.)

* Retail version of Microsoft Windows 3.0 (or later)

Also useful, although not essential, is:

* A mouse, tablet or pointing device compatible with Microsoft Windows (e.g. a Microsoft, Logitech, Mouse Systems, IBM or Amstrad mouse, a SummaSketch graphics tablet, a MicroSpeed FastTrap, etc.)

Capacities

Up to 16,000 records per database file (dependent on memory)

Maximum number of fields/elements per record 100

Maximum number of pages per form 20

Maximum number of characters per field/element 1024

1. dIndex Installation.

Obtain a blank and formatted diskette which will become your working copy of dIndex. Make the working copy by placing the distribution diskette in drive A: and copying the distribution diskette to the blank and formatted diskette by typing

```
COPY A:*.* B:
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at the DOS prompt, or using the Microsoft Windows' copy facility or dFile's floppy copy to copy ALL the files on A: to B:. If you are using a single floppy drive machine you will be prompted when it is time to insert the blank disk.

Check that the working copy diskette now contains all the files which were present on the distribution diskette.

Put the original away in a safe place in case the working copy becomes damaged. Use only the working copy of dIndex for the remainder of the installation.

If the working copy contains a file called README.TXT, examine the content of this file to see if it contains any additional instructions which were not available when this manual was printed. The README.TXT file may be examined using Microsoft Windows Notepad, any word processor, or the DOS command

```
TYPE A:README.TXT
```

To install dIndex on your system insert the working copy of the diskette into your machine's diskette drive. [These instructions will assume that your diskette drive is drive A; If you are using drive B: simply replace the A: for B; in the instructions below.]

Start Microsoft Windows.

From the Program Manager select RUN from the file menu and enter

```
A:INSTALL
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into the dialog box.

You will be prompted for a subdirectory into which the dIndex software, help files and examples will be placed. The installation program will offer a default subdirectory, which you may change if you prefer an alternative.

When you are satisfied with the installation subdirectory press <enter> or push the

CONTINUE button.

Installation will take place automatically, creating a dIndex icon in a dLSoft group.

After installation you may move the dIndex icon to any other group by selecting the icon and dragging it to the required destination.

Note that if you are using a version of Windows later than 3.0 you may specify a working directory which dIndex will use by default by choosing PROPERTIES from the Program Manager FILE menu and entering the required subdirectory path. The working directory is the directory which will be shown in the Load or Save dialog boxes when you first attempt to load or save within dIndex.

Installation without Program Manager

If you wish to install dIndex without running Program Manager you may run the INSTALL.EXE program on the working copy of the distribution disk by double clicking on its file name from within File Manager, dFile or most other file management software running under Windows.

Alternatively you can create a subdirectory on your hard disk and manually copy the file from the working copy of the distribution disk to that subdirectory. You will then need to inform Program Manager of dIndex's subdirectory name.

Note: DINDEX.HLP may be deleted to save disk space if required. The Help system will not be available if DINDEX.HLP is deleted.

2. Starting dIndex

1. Using Program Manager

Open the Group Window which contains the dIndex icon.

Double click on the dIndex icon.

2. Using File Manager or dFile

If necessary, change to the directory containing DINDEX.EXE.

Start dIndex, either by double-clicking on DINDEX.EXE or by using the cursor keys to highlight DINDEX.EXE, then pressing the <enter> key.

3. The dIndex tutorial

3.1 Databases, records and fields

A database is a store of information. The database may contain information about people or products or services, or in fact just about anything. For the sake of having an example to focus on, let's consider a database containing information about people.

Within a database the information is probably organised in some way. In the case of dIndex databases the information is organised into records. To illustrate this using our example of a database containing information about people, the database may contain the information organised into records using one record per person. So if the database contains information about a thousand people the database would contain 1000 records.

A record may be regarded as a sheet of paper on which the information about each individual person has been written. In this case the database could be viewed as a drawer full of the sheets of paper. dIndex enables you to find specific sheets of paper - no matter what the order of the sheets in the drawer.

On a specific sheet of paper the information about one person is probably organised in some way as well. For example the sheet may contain the person's name, address, telephone number, year of birth, and so on. Each of these items of information about the person can be referred to as a field. So there may be a field for the person's name, a second field for the address, a third for the telephone number, etc.

It is easy to imagine the many ways in which the sheets of paper representing the individual records could be organised. For example, they could be arranged in alphabetical order of the person's name. Or they could be arranged by age order, or by telephone number, or area of residence. While alphabetical order may sound like a good idea, it is not necessarily the best way if one wishes to extract specifically the records of persons living in London, or persons aged between 20 and 25.

dIndex permits the records in a database to be rearranged into alphabetical or numerical ascending or descending order for any specified field of information contained in a record.

One of the most important uses of a database system is to allow the user to retrieve from a database those records which meet certain criteria. For example, one may wish to retrieve the records of all the persons who live in the London postal area. In dIndex terms this is Searching the database. More precisely, it is probably searching the address field of records in the database to find those which contain the word London.

But dIndex can do more than this. Suppose you wish to retrieve the records of those persons who live in London and are aged over 65. dIndex can do this by first searching the address field of records in the database to find those which contain the word London, and then narrowing the search to include only those records so far retrieved which contain a year of less than 1927 in the year of birth field. You may then decide to widen the search to include the records of anyone who lives in York, or to exclude from the search any records of persons without a telephone. dIndex can do all of these things.

So to the concept of searching a database for records which meet one specific criterion we may add the concepts of narrowing a search so that only records already found AND which meet a new criterion are included; widening a search so that records already found OR any which meet a new criterion are included; and excluding from a search records already found which meet a specified criterion.

When you carry out a search of a database with dIndex, dIndex will "mark" the records in the database which meet the criteria you specify. dIndex will then display on screen only those records which have been marked. If you wish, dIndex will print out the records which have been marked. You can even mark or unmark records manually if you wish to modify the list of those found by automatic searching.

3.2 Creating a record format using the mouse

Start dIndex as described in chapter 2.

A rectangle appears on screen, labelled with the word Index.

This represents the Index field of the record you are viewing in the current database. (At the moment it is empty).

The Index field is the one field which must be present in every database (although it may be empty). Your records may contain further fields (up to 100 in fact), but it must contain the Index field.

Let's start by adding a couple of additional fields. We will assume for the moment that the Index field for the records of our database will contain the name of person - the surname to be precise. Let's create three additional fields: one for the person's first name, one for the person's title (Mr, Mrs, Dr, etc.), and one for the person's address.

Select ADD from the edit menu. A sub menu appears offering a choice of the items to add. Select FIELD BLOCK from the sub menu by clicking on it.

The display changes to show the outline of a page containing a single dotted rectangle (which represents the default position of the Index block), and the cursor changes to a corner.

Position the cursor somewhere on the page image and then press and hold down the left mouse button. Now, while holding down the left mouse button, move the cursor down and to the right. A rectangle is drawn on the screen as the cursor is moved. It does not matter how large you make the rectangle - just as long as its big enough to see.

Now release the left mouse button.

A dialog box appears requesting a name which you wish to assign to the new field you have created. Type in the word Title in the edit box provided. Note that this is the name of the field - not what will appear within the field in any particular record.

Click on the OK button. The dialog disappears and the page image is redrawn showing two broken line rectangles: the first still showing where the Index field will appear; and the second showing where the new "title" field will appear.

[dIndex switched from its normal display mode into a printer view of a page so that you had to define a position for the field you were adding to the record - otherwise dIndex would not know where the field should be placed for printing. If you select Normal from the Display menu, then the display will revert to the record view in which the fields are displayed as boxes stretching across the screen. To return to the printer image select Printer View from the Display menu.]

Repeat the above procedure to add a field called "first name". If you do this from the printer view you will observe that the ADD sub menu now contains many more items which may be added to the image - but only the Field block and Index items will create space for information fields within the database.

Create a fourth field called "Address" and then return to dIndex's Normal display.

We now have four fields defined for the records of a database - although at present all four remain empty.

Before we start to provide some data for these fields lets save the record style on disk.

Select SAVE STYLE from the file menu. A dialog box will appear, prompting you to enter a name for the style file. Type in a suitable filename, such as LIST (or any name up to 8 characters), but do not enter any extension at the moment. When you have entered the filename click on the OK button.

Your database style sheet is saved as LIST.DLS, and this may be recalled at any future time. A style sheet named DEFAULT.DLS is loaded automatically each time you start dIndex, so if you frequently use one particular style you may wish to name it DEFAULT, or load your named file and select SAVE DEFAULTS from the OPTIONS menu which does the same thing.

3.3 Entering records into the database

Now that we have saved the style sheet let's enter some records so that we have a database to experiment with.

Select ADD RECORDS from the EDIT menu (or press <F7>) and an editor window appears entitled "dIndex - Index block", and with a caret cursor blinking within it. Type in a surname for the first person you wish to create a record for - say Smith. Click on the editor window's OK button.

The Index block editor is replaced by a field block editor (which contains additional buttons for moving from one field to another), showing the name of the field being edited at the top of the dialog - currently "Title".

Enter a suitable title (such as Dr.) into the editor, then either click on NEXT FIELD or press <tab> followed by <enter>. The editor field clears and the field name changes to first name. Now enter a suitable first name, then press <tab> followed by <enter>. Again the editor field clears and the field name changes to "Address" - so enter a suitable address - pressing <enter> at the end of each line of the address. When the address has been entered the current record is complete - i.e. all its fields have been filled in. Consequently when you press <tab> followed by <enter> the "Index block" editor window reappears ready for you to enter another new record. If you have finished entering records click on CANCEL or press the <esc> key and the editor window disappears leaving the current record displayed in the main dIndex window.

Now that our database contains a few records let's look at the three ways in which the database contents can be viewed.

Selecting PRINTER VIEW from the DISPLAY menu allows us to view a single record of the database as it would be printed if we chose to select PRINT from the file menu.

Selecting NORMAL from the DISPLAY menu returns the display to its normal view of a single record - a series of boxes, one for each field. This display allows us to examine single records without having to wait for any pictures or fixed text blocks on the form to be redrawn. If we are using a small screen and wish to increase the number of fields visible simultaneously, then selecting MULTILINE FIELDS from the OPTIONS menu will contract each field to a single line, allowing more fields to fit within the dIndex window.

Selecting LIST from the DISPLAY menu allows us to view the index field of as many records as will fit on screen at once. At present this may not be particularly helpful. But later we will find out how to sort the list in a more useful order, and then the list view becomes really useful.

3.4 Saving the Database.

Select SAVE AS from the FILE menu and you will be prompted by the file handler for a filename for saving the Database. Just type the required filename and either press <enter> or click on OK. A filename extension is not required (dIndex will insert the default extension .DLX), although any extension may be used. The current drive and directory are also shown, so if you wish to save to a different drive/directory just select different items from the Drives and Directories lists.

To save you much typing both a style sheet and a small database are provided on the distribution disk with the name DEMO1 - so you can open these by selecting OPEN from the FILE menu and double-clicking on the DEMO1.DLX filename, and then selecting LOAD STYLE from the FILE menu and double clicking on DEMO1.DLS filename.

3.5 Improving the form layout.

At present our form layout - which may be viewed by selecting Printer View from the Display menu - shows a page which contains only the four fields of our database records.

In general it is desirable to include on record printouts some additional information, such as the name and address of the company holding the database, some headings to identify the fields of the printout, and perhaps even the company logo. These items are the same on every record printout and so are not stored as part of the database, but are stored as part of the style sheet of the database.

Lets switch to Printer View and add a few stylistic elements to the form image.

Click on ADD and then select TEXT BLOCK from the EDIT menu.

The menu disappears and the cursor changes to a "top left-hand corner". Now move the cursor to the point on the form at which you wish the top left hand corner of the text block to appear - just above the Index field would seem like a good place. Hold down the left mouse button and while keeping the button down, drag the cursor down and to the right. A box is drawn on the form, representing the region which will hold the text block. The size of the text block region you draw is of no importance as it will be resized when you enter text.

Release the left mouse button and the cursor returns to normal.

A new, window entitled dIndex - Text block appears and is initially empty. Type in some text, such as Customer name. If you choose to enter a multiline text, then at the end of each line of the text press the <enter> key in order to start a new line.

Check that the text is as you require. Now click on OK.

You have created a Text block, and its contents are now visible at the position you defined and are shown using a default font.

Just for completeness we will now add a sequence number block and a graphic box.

Click on ADD and select SEQUENCE from the list of elements.

Move the cursor to the point on the form at which you wish the top left hand corner of

the sequence block to appear.

Hold down the left mouse button and while keeping the button down, drag the mouse pointer down and to the right to create a box to represent the region which will hold the sequence block.

Release the left mouse button.

A dialog box called the Sequence labelling dialog box appears containing a two small boxes which enable you to specify the first number of the sequence and any prefix you wish to include.

Enter some text, such as NUMBER, (followed by a space) into the Sequence prefix box, then click on OK (or press <enter>).

You have created a Sequence block, and its contents are now visible at a default position and are shown using a default font.

Finally, lets place a box (a graphic element) on the form.

Select ADD and choose BOX from the element list.

Position the mouse pointer near the top left hand corner of the form. Hold the left mouse button down and drag the pointer to the bottom right hand corner of the form. Release the mouse button. A box will be drawn around the form.

Your form image now contains five items:

Four field blocks which can contain the fields of each record

A text block

A sequence number

A box around the form.

The elements containing text are all shown using default fonts.

3.6 Creating further Records

Once you have created and saved one or more Records as outlined above, you can create further Records using the same text blocks, sequencing blocks, Field block spaces, graphics and pictures by selecting ADD RECORDS from the EDIT menu and proceeding as before (typing in the required Index and field blocks, and following each by <tab> then <enter>, then selecting CANCEL when you have entered all the required records).

3.7 Moving things around on the form image

The layout shown in Printer View mode is what will appear on printed forms produced by dIndex. Consequently we need to know how to modify the form image to make it look as professional as possible.

Ensure that you are viewing the form image by selecting PRINTER VIEW from the DISPLAY menu.

Suppose we wish to move the Index field from its present location to somewhere else. Move the pointer so that it points to any part of the index field. Double click with the left mouse button. A dotted rectangle appears around the Index field. [If you find difficulty in double clicking you may wish to change the double click time specified in

your WIN.INI file - consult your Microsoft Windows documentation for details. If you are not pointing to the element when you double click you may accidentally select something else or nothing at all. If you do accidentally select something other than the index field, press the <esc> key or click once with the left mouse button to cancel the selection.]

Now hold down the left mouse button and move the pointer around the screen. A solid copy of the dotted rectangle will follow the movement and may be positioned anywhere on dIndex's window. Release the mouse button and the index field is relocated. This technique (moving the mouse pointer while the left button is held down) is known as dragging. Note that while it is necessary for the mouse pointer to be on the index field when you wish to select the index field by double clicking, it is not necessary for the pointer to be on the index field while you drag its position around.

The same technique may be used to move Text blocks, Sequence numbers, Pictures, Field blocks or graphic elements.

3.8 Styles

The style of the form refers to the appearance of the form's components. The style specifies where components will be positioned on the form image and how large they will be, whether any component will be printed in a box or with an underline, and if so the line thickness to be used, and so on. For textual elements the style includes the font, fontsize and line spacing with which the text will be reproduced. For picture elements the style includes the bitmap or metafile used to create the picture.

The position of a component may be changed by selecting the component and dragging it into the required position (see section 3.7)

The size of any text component (the Index, Field and Text blocks and Sequence numbers) is determined by its content and the font chosen for it (see below), but the size of Pictures and graphic elements may be changed.

Double click on the Box included in the demonstration style. Now hold down the <shift> key and drag the lower left-hand corner of the dotted rectangle until the outline becomes the size you would like your Box to be. Release the mouse button, and your Box is resized.

The thickness of the lines used to draw boxes and underlines may be chosen by first selecting an element by double clicking on it and then clicking on OPTIONS and selecting BOX LINES or LINE SIZE from the menu. The Line size dialog box appears. Clicking on one of the buttons labelled with the available line sizes causes the line or box to be drawn with the specified thickness. An example will illustrate the technique.

Double click on the index field. Note that the Record number item (#) of the menu bar changes to "Index field " to indicate the type of the currently selected item.

Select BOX LINES from the OPTIONS menu.

A dialog box appears showing the sizes of line thickness which may be selected for box drawing. The check box labelled No Line is currently checked. Click on the box to uncheck it, and click on the list box entry 0.5 mm. Then click on OK.

The dialog box disappears and the form image is redrawn, with a box around the index field element of the form.

3.9 Fonts

The fonts used for any block containing constant text may be set independently, by first selecting an element by double clicking on it and then clicking on OPTIONS and then selecting Selection font item from the menu. For the specific case of the Field blocks, the font used in all Field blocks may be selected directly from the menu (i.e. without having previously selected a field block element). In either case the Font properties dialog box appears. This presents the user with details of the current font, fontsize, style and line spacing of the chosen element.

Let's change the font used for the Index field. First select the Index field element, then click on OPTIONS and then choose SELECTION FONT from the Menu.

The Font properties dialog box appears and shows the current properties of the Index Field font.

The current font is probably Courier (the factory default). The index field text can be made bold or italic by checking the appropriate check box in the current font section of the dialog. Similarly the whole block may be boxed by checking the boxed check box, or underlined by checking the underline box.

The line spacing used in rendering the block may be set automatically (to 110% of the font size), in which case "Auto" appears in the spacing edit box. Alternatively the line spacing may be set manually by checking the Set spacing check box and editing the value of the line spacing which appears in the Spacing edit box. A specific value may be entered, either in lines, points or millimetres (as selected from the spacing list box). "Points" is a unit of measure used to specify the height of printed characters; there are 72 points to the inch!

If we wish to select an alternative font or font size we simply push the CHANGE FONT button, which brings up the font selection dialog box.

This shows a list of the fonts available on your Windows system, including list of available font names, styles and sizes. The entries will depend on the currently selected Windows printer and, in many case, the page orientation. One of the entries may be highlighted - showing the currently selected font, which at the moment is probably still the default font.

Click once on an alternative font name and note that a sample of the specified font appears in the Sample box.

The list of sizes at the right of the dialog box will now show a list of available font sizes. If no sizes appear when a font is selected it will be because the font you have selected is of a fixed size which cannot be changed; try another font name. If a range of sizes has appeared then one of them may be highlighted to show the current size selection.

An alternative size or style may be selected by clicking on entries in the Style and Size list boxes.

Click on the size that you would like the font for the index field to appear.

Now click on OK. The Font properties box is still visible, now showing the details of the newly selected font - including the line spacing which will be used for rendering the Address block.

Push the OK button.

Your form image will be redrawn, but at first sight it may appear that the font is not the size you expected. DON'T PANIC.

When you select a non-TrueType font for text components (the Index field, Text block or Sequence number) the font is chosen from a list of fonts which is suitable for your current printer (the one which has been most recently selected via the Change Printer option of the FILE menu, or defaults to that specified in your WIN.INI file). That does not necessarily mean that the font is suitable for your video display.

dIndex is provided with two options to overcome this problem. You may elect to have the form image displayed so that the non-TrueType fonts are approximately the right size (even though they may not have exactly the correct appearance) or to have the image displayed with readable text in a close approximation to the right font (even though the displayed text size might be considerably larger than expected).

Click on DISPLAY. Clicking on the LARGE FONTS menuitem toggles between the two options described above, i.e. displaying fonts at approximately the right size in relation to the scale of the display (right size fonts), or in approximately the right font but at a readable size irrespective of the font size specified in the Font selection dialog box (large size fonts). When the fonts are displayed using the right size option the small font sizes may well appear unreadable on the screen of a low or medium resolution display. On the other hand, opting for readable text may result in the text running over the boundary of the form on the screen image.

When the fonts are displayed using the large size option, the LARGE FONTS entry of the DISPLAY menu is "ticked" - it has a tick on the left hand side (just like one of the entries above it). Note that TrueType fonts are always shown at the correct size and are not effected by the setting of dIndex's Large fonts option.

You may wish to experiment with the appearance of different fonts and font sizes using the two display options.

The fonts, font sizes and line spacings used for the Index field and all textual elements form part of the style of the form, just as the positions and line size parameters discussed earlier.

3.10 Form views

If you have a reasonably standard monitor, the page image shown on screen is probably too large for the entire page to be visible. dIndex's windows does contain vertical and horizontal scroll bars which allow the user to bring into view any desired part of the page.

When PRINTER VIEW is selected the screen image is displayed using approximately the same scale as the printer's output page. However, dIndex provides a choice of magnifications for viewing your form images.

Select PAGE VIEW from the DISPLAY menu.

Your form image is redrawn at a smaller size, representing the form as it will appear on one page of your current printer selection, as illustrated below, but using a scale which allows an A4 page to be displayed within the screen area.

A black rectangle drawn on the pageview display shows the printable limits of your current printer - which may be smaller than the physical page size specified in the printer setup, while the page outline represents the physical size of the paper specified in the printer setup dialog box. [For example, many laser printers cannot print within 1cm of the edge of the paper, and the printer drivers for some matrix printers do not permit the printer to print right up to the end of a page. - see Printing, Section 5.]

All the selection facilities are available in this display mode, although text is always shown at approximately the correct size and so may not be readable in this display mode.

To view the form image at the maximum magnification select MAXIMISE from the DISPLAY menu. The image is redrawn at approximately double its actual size, and again the vertical and horizontal scroll bars may be used to bring different areas of the form into view.

For normal form layout and editing purposes you should work with the Printer view display, although for very precise positioning operations it may be desirable to switch to the Maximise view display, as this is clearly more precise for positioning elements.

In any of the form display modes dIndex can hide some of the elements to speed up redrawing of the screen. All elements (except the Index field and Field blocks), may be hidden, or all pictures and/or all text blocks may be hidden by selecting the relevant entries from the DISPLAY menu. Note that selecting both HIDE TEXT and HIDE PICTURES leaves graphic elements (boxes and lines) visible. Experiment with different style combinations to see which combination of paper size, orientation, fonts, etc. you prefer. Once you have decided on a given combination you may make this the default style by selecting SAVE DEFAULTS from the OPTIONS menu. In future when you load dIndex it will use the page size, style, Text blocks and Pictures that you have saved as the default values. The style of the form determines the size and position of lines and boxes, the fonts used for the Index field, Fill and Text blocks, and the contents of the Text blocks, Sequence number prefixes and Pictures. But it does not include the actual index field or any of the associated field block text. This must be created and saved separately.

3.11 Printing the form

dIndex will print the forms on the printer currently selected within dIndex - or on the default Windows printer if you have not selected a printer from within dIndex. Just select PRINT from the FILE menu. The dIndex Print dialog box (shown below) will appear, advising you of the currently selected printer and offering you the chance to modify the left-hand and top margin setting, or to use a centre feed or right feed rather than the standard left aligned feed of the form sheets through the printer. [The feeder for some printers, such as the Apple LaserWriter NT, requires centralised feeding for page widths smaller than A4.] This dialog box will also offer you the opportunity to print out forms for many or all of the records in memory, and to print a specified number of copies of each form. dIndex will always default to print the currently displayed form.

For a first attempt let your printer use its normal paper feed arrangement.

Click on OK.

A message box will appear to advise you that dIndex is printing, and to provide the opportunity to cancel printing. Note that Windows normally uses a print spooler (i.e. it send information to a disk file first, and then copies the disk file to the printer). Consequently for matrix printers there may be a period of apparent inactivity before printing starts during which time dIndex assembles the image of the form and transfers this to disk. This period will be longer if you have selected a graphics font than if you have selected one of the printer's resident fonts, and even longer if you have bitmap images included on the form. [The spooler may be disabled by clicking on the disable spooler check box within the Print options dialog box. Alternatively, see your Windows documentation for details of how to remove the spooling facility]

The setup of the printer (e.g. landscape or portrait orientation, resolution, etc.) may be changed by selecting SETUP from the Print dialog box, or by selecting PRINTER SETUP from the FILE menu. In either case you will see the printer setup dialog which you are probably accustomed to from other Windows applications. When you save a form's style sheet the printer's options, including the paper orientation, are saved within the style sheet. Future use of the style sheet will automatically use the required printer settings without effecting the settings used by other Windows applications.

3.12 Loading a previously saved Database

To load a previously saved Database (a file containing a number of records) select OPEN from the FILE menu. dIndex files normally have the extension .DLX (although you may specify another extension) and only files with the extension .DLX will be presented for selection. Double click on the required filename, or use the cursor keys to highlight the required filename then press the <enter> key, and the file will be loaded. Files in an alternative drive or directory may be opened by first selecting the appropriate entries in the dialog's Directories and Drives boxes.

While a database file can contain just one record it is likely that most users will wish to store many records in a file, so that forms may be prepared for a number of records. dIndex allows multiple records to be read from ASCII files which may be prepared using Windows Notepad or any text editor or word processor which allows files to be saved without embedded formatting (i.e. as ASCII files).

An individual field in a record may contain up to 1024 characters, and each record must be separated from the next using a separator. The default separator is |. If you are preparing a database from scratch then you may wish to type the records directly into dIndex as described above. If you are using a word processor, or if you already have databases in a different format, then it may be more appropriate to use the word processor's Search and Replace facility to change your existing record separator into the | character (the separator character must be the first and only character on a line). Alternatively you can import a database (in which case you can specify the separators - see section 4.2) and then save it - so that the dIndex separators are automatically inserted.

Similarly, individual fields within a record must be separated from the next using a separator. The default separator is \v (the vertical tab character). Again if you are using a word processor to modify an existing database you can use the word processor's Search and Replace facility to change your existing record separator into the \v character. Alternatively you can import a database (in which case you can specify the separators - see section 4.2) and then save it - so that the dIndex separators are automatically inserted.

dIndex can read address files containing up to 16000 records (providing your system has sufficient memory). Once the file is opened by dIndex, the display will show the first record on screen. The next form may be selected by choosing NEXT from the SELECT menu or, more simply, by pressing the <PgDn> key. [The previous form may be selected by choosing PREVIOUS from the SELECT menu, or pressing the <PgUp> key.] The number of the current form is shown alongside the bar in the menu line. Clicking on the form number shown in the menu line also advances the display to the next form.

When a database containing many records has been opened it is convenient to be able to move rapidly to a specific record. dIndex allows a record to be selected by

going directly to the record number, by choosing GOTO from the SELECT menu, entering the required address number and clicking on OK or pressing <enter>. Alternatively the user may search for a record containing a particular string of text in the index field, by selecting SEARCH from the SELECT menu, entering the text string required and clicking on OK or pressing <enter>. If more than one record contains the text string in the index field the search may be continued by choosing REPEAT SEARCH from the SELECT menu. When a search string has been specified the Match case check box in the Search dialog box may be checked if a case sensitive search is required (see section 4.7).

Records for an entire database may be printed by selecting PRINT from the FILE MENU, and turning on the ALL button in the Print dialog box before clicking on OK. A selected range of records may be printed by turning on the RANGE button in the dialog and entering the appropriate numerical values in the FROM and TO boxes before clicking on OK. Individual records may be printed by moving through the list until the required address is displayed and then selecting PRINT from the FILE menu and clicking on OK in the dialog box. Alternatively individual records may be marked (see section 4.7) and then the marked records printed by selecting PRINT from the FILE menu, turning on the Marked radio button and clicking on OK in the dialog box.

3.13 Editing fields and text blocks

dIndex provides a text editor for editing text blocks or individual fields. The editor is provided primarily to allow modifications to text block contents, or corrections to records.

The editor may be invoked directly by double clicking on a field block in the Normal display mode. Alternatively the editor may be entered by selecting the EDIT INDEX or EDIT SELECTION item from the EDIT menu while in Printer view, Page view or Maximise view modes. EDIT SELECTION will bring up the editor only if a text or field block item has been selected by double clicking on its image.

[Choosing EDIT SELECTION while a Field block is selected in Printer, Page or Maximise view modes will normally result in the display of the Field block Name dialog box (permitting the name of the Field block to be edited) before the text editor is displayed with the Field block contents. However, in Field mode, double clicking on a Field block will display the editor immediately. Generally it will be found most convenient to edit record fields from Normal mode.]

When the editor is invoked, the current content of the selected item is displayed in the editor, and may be modified as required using the same operations that would be employed using Windows Notepad. Text may be selected (by holding down the left mouse button while moving the cursor over the target text), cut or copied to the Windows clipboard, or cleared (i.e. deleted without being copied to the clipboard - and so without disturbing the current contents of the clipboard). Text may be pasted from the clipboard into the block at the current cursor position.

Pushing the OK button within the editor results in the currently displayed editor content replacing the previous content of the selected item. Pushing Cancel within the editor closes the editor without modifying the previously selected item.

3.14 More on Field blocks

One of the most powerful features of dIndex is the facility to specify named Field blocks on a style sheet, and to store corresponding Fields within a database file. For the facility to be used with ease it is important to understand that the elements of a record are distributed as follows:

Style sheet: Positions and contents of Text blocks, graphics and pictures on printed record forms. Positions of all field blocks.

Database file: Contents of index and field blocks for individual records. The index field itself acts as the anchor for an individual record - it must be present (even though it may be blank), while the other field blocks are optional extras. For any individual record each field may be present or absent.

The space for a Field block is created and added to a form image in the same way as the other components (i.e. by selecting FIELD BLOCK from the ADD menu, see section 3.2). Initially each such space will be shown as a dotted rectangle - indicating that it is empty.

The contents of a field block may be entered in one of three ways:

1. At the same time that a record is being created (i.e. on a blank form) using the ADD RECORDS option of the EDIT menu.
2. Added to an existing record (which has already been created using an opened or imported database) using the FILL FIELDS item of the EDIT menu.
3. By selecting the field block from within Normal view, or by selecting the block and editing its contents using FIELD MODE of one of the form views (see below).

Duplicating Field block contents.

It can be useful to duplicate the contents of a Field block, for example, on successive pages of a multipage form. Any field block may have its contents copied from any other Field block by providing the Field block with the same name as an existing field block. This is most easily accomplished by selecting the existing name from the list box in the field block editor which appears when the duplicate block is being created or edited. However, it can also be brought about by providing a name which has = as its first character followed the name of the other source block. Thus a Field block named =first name will receive its contents from another Field block named first name. [If there is no other field block named first name then the block named =first name will remain empty.]

Hiding Field block contents

It can also be useful to be able to hide the content of Field blocks. For example, you may wish to create a database which contains fields of details of customers. The fields may include details of, say, address, contact name, order number, items ordered, etc. You may then have one form style to create mailing labels, on which only the name and address fields may be shown, but a second form style to create delivery notes on which the order number and items ordered also appears.

While in some cases it may be possible to restrict the number of fields shown on a form simply by limiting the number of Field blocks defined, in other cases it is desirable to hide the contents of a Field block, so that the same database can be used without reordering the fillings.

The content of any Field block may be hidden by checking the Hide Contents check box of the field block editor dialog. A field block may also be hidden either by moving the field block rectangle outside the pages printable area or providing the block with a name beginning with ! Thus in the example given above, the delivery note style sheet could be renamed (by saving) as a mailing label style sheet, then the names of

the Field blocks which show order numbers and items ordered (e.g. onumber) edited into a name which hides the contents (e.g. !onumber).

Note that it is always possible to move fields (or any displayed element) off the printable page area, thus allowing the field to remain visible on screen while being omitted from any printed forms.

3.15 Field Mode

dIndex's printer mode of display is designed for creating and editing form styles, examining or printing filled forms, or creating complete forms. Occasionally it is desirable to fill or edit a small number of field blocks without having to cycle through all field blocks on a form or having to disturb the display by entering NORMAL view mode. To allow for this dIndex has a Field Mode, in which double clicking on any field block calls up the Field block editor and loads into it the content of the selected field block. - in much the same way as the normal mode of display operates. In Field mode many of the normal Cut and Paste operations of the main dIndex window are not available - as indicated by the greying of the items of the EDIT menu. The normal editing operations are, of course, permitted within the Field block editor window.

When one of the printer views (Printer view, Page view or Maximise view) Field Mode is entered by selecting FIELD BLOCKS MODE from the OPTIONS menu or pressing <Ctrl> and <F7> simultaneously, and the Form# of the menu bar is replaced by Field mode when Field Mode is active. The Name of any field block being edited replaces Field mode in the Main window menu bar when the editor is displayed. Normal operation may be resumed by clicking again on the FIELD BLOCKS MODE menuitem of the OPTIONS menu (or pressing <Ctrl> and <F7> simultaneously). Normal operation is also resumed automatically if a new style or database is loaded while Field mode is active.

dIndex's Normal view is always operates in Field mode - so that double clicking on a field while Normal view is displayed always brings up the editor.

3.16 Searching the database

One of the most useful aspects of any database system is the ability to search the database to retrieve those records which match a specified criterion. dIndex provides database search facilities through the Search and Mark dialog, which may be initiated by clicking on the SEARCH menuitem of the menu bar.

Records which are retrieved using the Search & Mark dialog are identified by being "marked". Marked records are identified by the presence of a « symbol next to the record number in the menu bar. Marked records may be displayed (by selecting Show Marked Only from the DISPLAY menu), printed or exported to the clipboard.

The Search & Mark dialog contains an edit box labelled Search string, into which the user may enter text which is to be searched for to retrieve records from the database.

The fields which are to be searched may be specified by choosing one of the radio buttons labelled Search, and may be All fields, the Index field only, or selected fields - which must be identified by selecting fields names from the adjacent Fields list box.

Once a Search string has been entered and the Search fields specified, a search may be initiated by pushing one of the push buttons in the Search box.

The NEW button initiates a new search of the entire database. Any existing "marked"

records are unmarked before the search is undertaken. At the end of the search the number of records which have been retrieved (i.e. which contain a matching string) is displayed in the Found records box at the bottom of the dialog. The retrieved records are "marked", so that on exit only those records will be displayed in the dIndex main window.

The WIDEN button allows an existing list of marked records to be expanded by adding records which are retrieved during the search.

The NARROW button causes the search to be confined to records which are already marked.

The EXCLUDE button causes the existing marked records with a matching string to be unmarked.

For all searches the matching of the Search string may be specified to be case sensitive by checking the Match case check box. If the box is not checked then the search is carried out without regard to case.

The Search & Mark dialog box also contains OK and Cancel buttons. Pushing either button closes the Search & Mark dialog box and leaves the dIndex main window visible.

If the OK button is pressed while the database contains marked records (either as a result of a search or because the records were already marked before the Search & Mark dialog box was displayed) then dIndex enables Show Marked Only mode and displays the first marked record in the database.

Records may also be marked and unmarked manually by using the Mark records dialog (accessible through the Mark records item of the SELECT menu), or by clicking on the Record# while holding down the <Ctrl> key.

3.17 Typical applications

One typical application is as follows: The user starts dIndex and opens the required database and loads the style sheet for the printed forms required. The user then uses the SEARCH dialog to locate the records required. The user selects PRINT and then selects the MARKED button from the dialog box before clicking on OK to print all the required forms.

Another application allows the creation of a complete record adhering to a specific style - perhaps the details of a new customer. The style sheet is loaded along with any specific database to which it is desired to attach the intended new entry. The user then selects ADD RECORDS from the EDIT menu, whereupon the user is prompted for an index field item, followed by prompts for each of the required field blocks.

dIndex may also be used as a filing system from which names, addresses and all sorts of other information may be retrieved for pasting into a word processor when writing letters, reports, etc. The Search facility may be used to find a specific record within a database, the required item may be selected (by double clicking on it), and then the Copy menuitem of the editor's Edit menu may be selected to copy the item to the clipboard.

Bar Codes

dIndex can produce bar codes on the label image, but this manual does not provide details of the code formats or algorithms. Such information is available from one of the organisations mentioned on the bar code sample sheet included with your dIndex

package.

dIndex can generate bar codes based on the following standards:

EAN
EAN -8
EAN+2
EAN+5
UPC-A
UPC-E
ITF
ITF-6
Code-39
Telepen

Note that some of these standards permit numeric entries only, while others permit alphabetic and numeric characters to be included in a code.

Several of the standards have an associated recommended or nominal size.

It is important to realise that some printers may not be able to print some of the codes with an acceptable degree of resolution.

Incorporating bar codes on documents

To incorporate a bar code on a document choose the ADD menu and select bar code. Draw the bar code outline on the label image in the normal manner by dragging the mouse pointer. On releasing the mouse button the Bar Code dialog box will appear.

Select the required coding scheme from the drop down combo box.

The required number of characters will be shown in the characters box.

dIndex can create codes based on three data sources:

1. Fixed codes. A fixed code will result in the same bar code being printed on every document.
2. Sequenced codes. A sequenced code will be incremented by 1 on every document printed. The user may specify the starting number and any prefix characters. The actual code is produced by adding the letter (record) number to the start number - which produces a numerical result. The characters of the result are then appended to the character of the prefix to create the code. It is the user's responsibility to ensure that the resulting number of characters is correct for the encoding scheme.
3. dIndex can create bar codes from data stored in a fill block. This mode is enable by pushing the radio button marked "Copy from field name" and selecting a field name from the drop-down list of names. It is the user responsibility to ensure that the fill block data is suitable for encoding - in particular that the block contains the correct number of characters.

The Bar code dialog box also contains check box which permit the user to select the following bar code options:

1. Include text. When this box is checked dIndex will print the bar code characters underneath the actual; bar code. The font used to render the characters may be user-selected in the usual manner.
2. Auto check digit. Some bar coding schemes include a check digit. If auto check digit is checked the dIndex will calculate and include the check digit automatically. If

auto check digit is not checked then it is the user responsibility to include the check digit with the code entered - generally using the fixed code option (see above).

3. Nominal size image. Some bar codes standards specify a nominal size for the bar code. Checking the nominal size box will cause the bar code to be displayed and printed at approximately the nominal size irrespective of the size specified for the bar code when the code was placed on the label image using the ADD ELEMENT option. Bar codes should not be printed at less than the nominal size because many bar code readers will not be able to read the resultant image.

Editing bar codes

Bar codes may be edited by selecting the bar code image (by double clicking on it) and then choosing the EDIT SELECTION option from the EDIT menu.

The Bar Code dialog box appears and the entries (as described above) may be edited.

Notes

If erroneous bar code information is entered then dIndex will report the error when it first comes to display or print the effected code.

If an attempt is made to print a bar code with a printer resolution which cannot accommodate the minimum bar thickness, an error will be reported.