Label



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1 Labels

This document describes the Label program. You can create many different types of labels with the software.



Folder Storage Labels



Shipping Labels



The software can work with the record management system software and help you manage large quantities of physical records. Using a barcode scanner as shown in the following figure can help make record management functions go faster and with more accuracy.



The previous figure shows some of the more common labels that people generate when working with physical records.

The label program consists of two separate programs. One is the label design program and the other program is the print label OCX called APOCXFormProj1.ocx. The label designer is use to create the label designs and can be used for printing labels. The label ocx is specifically designed to work with the record management system so that people can print without having to start the label designer program.

2 Document History

Document	Author	Date	Revision Description
Labels1	Roy Nabel	10/07/2002	Requirements and Initial Design
Labels2	Roy Nabel	11/04/2002	Added a section that deals with
			communication between Image2000 and the
			ALABEL.exe software.
Labels3	Roy Nabel	11/06/2002	Added folder labels
Labels4	Roy Nabel	11/07/2002	Updated program communications and
			changed folder dialog to have OCSD barcode
			and not vendor barcode.
Labels7	John	08/26/2003	Added new label specifications
	Kennedy		
Labels8	John	08/28/2003	Added Label Server text file description
	Kennedy		

Labels9	John Kennedy	09/10/2003	Added Data Files Format Information & Example Data files
Labels10	Roy Nabel	10/26/2003	Added the setup section and also the section on vertical folder coding and label command.
Labels11	Roy Nabel	11/09/2003	Added Section 8 on Physical Folder Conversion.
Labels12	Roy Nabel	11/11/2003	Modified Section 8 on Physical Folder Conversion.
Labels13	Roy Nabel	06/06/2004	Added roll labels; print labels ocx; shelf labels
Labels14	Roy Nabel	07/12/2004	Modified roll label.
Labels15	Roy Nabel	07/27/2004	Add RMS Label Coding Setup
Labels16	Roy Nabel	12/20/2004	Added Portal Printing for box, folder, microfilm.
Labels17	Roy Nabel	01/20/2005	Can't remember
Labels18	Roy Nabel	03/20/2005	Can't remember
Labels19	Roy Nabel	08/28/2005	Modified Shelf label; Added PhoneList24
Labels20	Roy Nabel	10/13/2005	Merged in the label api;
Labels21	Roy Nabel	01/04/2006	Added Print User Directory section
Labels29	Roy Nabel	02/12/2008	Added Getting Started splash screen

3 Setup

3.1 Label Designer Setup

Installing the label software on a workstation only requires unzipping the label program in a directory. First create a directory on the workstation. Copy the label software to this directory and unzip the file. You will need to check that you have access to a printer. Printing color labels requires a color ink jet printer. Please consult with your Information Technology specialist on the setup procedures for connecting to a printer. You can test the label software in stand alone mode without a database.

3.2 Database Local Setup

To setup the database on the local machine do the following.

- 1. Download Oracle Express Edition from the following url http://www.oracle.com/technology/products/database/xe/index.html
- 2. Run the create user script c:\Alabel\DB\sql\CreatePostMasterUser.sql
- 3. Run the create setup script c:\Alabel\DB\sql\CreateAlabelSetup.sql

The following is information you need if you setup Oracle XE on a remote machine from where you install the label program.

How do you set up an ODBC connection to a XE instance on a remote server?

The basic steps are:

- * Download and install the XE client on your Windows machine
- * Create an ODBC DSN entry
- * Create a new MS Access MDB and link two tables from XE (using the sample user HR)

First, you download the XE Client software from the Oracle Technet:

http://www.oracle.com/technology/software/products/database/xe/index.html

Double-click on the downloaded file to install it:

OradeXEClient.exe 30.218 KB Anwendung 16.01.2007 19:41

During the installation choose to install the client software into a directory of your choice and finish the installation.

Zielverzeichnis v	wählen		0040
Ordner auswähler	n, in dem Setup I	Dateien installiert.	CATABA
Setup installiert Or	racle Client 10g i	Express Edition in dem folgenden Ordn	el.
Um die Installation	n in diesem Ordn	er vorzunehmen, klicken Sie auf Weite	r. Für eine Installation
in einem anderen	Uldher Kicken a	sie auf Durchsuchen und wahien einer	n anderen Uroner.
Conclusion Clinical 1	Do Express Editi	ion I	72760 K
Circle Caera I			1000000000
Zielordner			
Zielordner C:\oraclexe_cli	ent\		Durchsuchen
Zielordner C:\oraclexe_cli	ent\ C:	72760 K	Durchsuchen
Zielordner C:\oraclexe_cli Erforderlicher Verfügbarer	ent\ C: C:	72760 K 10384464 K	Durchsuchen

After that you can configure the ODBC entry. Goto Start > Control Panel >



Administration > ODBC Datasources another data source:

On the tab System-DSN add

Treber
zufügen
5
ntemen
figurieren

Choose Oracle in XEClient:

Name	Version	~
Microsoft Paradox-Treiber (*.db.) Microsoft Text Driver (*.bd: *.csv) Microsoft Text-Treiber (*.bd: *.csv) Microsoft Visual FoxPro-Treiber Oracle in HOME_o 102 Oracle in XE Oracle in XEC SQL Server 45	4.00.6304.00 4.00.6304.00 1.00.02.00 1.00.02.00 10.02.00.01 10.02.00.01 10.02.00.01 10.02.00.01 2000.85.1117.0	1
<	>	1

Enter the details for the connection to the remote machine, in my case the remote machine is daust3.opal-consulting.de

Data Source Name: choose an arbitrary name Description: choose an arbitrary description TNS Service Name: host:port/SID User ID: Oracle user to connect to

The service name is critical here, the hostname is the name of the remote machine but it can also be an ip-address. The port is the port on which the Oracle listener is operating, usually **1521**. The SID is fixed, it is called **XE**.

Then test the connection by entering the password for the user HR. The result has to be "Connection successful".

Data Source Name	D/F		OK
e dia conce maine	14		Cancel
Description	XE on remote machine	-	Carce
THE Service Name	daust3.opal-consulting.de:1521/XE		Help

After that start MS Access (in my case I used MS Access 2000) and create a link to the tables stored in XE. You can do this either by clicking on **New > Link table**

🕼 db2 : Database	×
	- EE MI
Objec New Table	2 🔀
Res R	Datasheet View Design View Table Wizard Import Table Line Table
Group Group Pavontes	OK Cancel

or by right clicking in the table pane and selecting Link Tables ...



then choose **ODBC Databases** from the bottom of the list:



Choose the computer data source \mathbf{XE} , which we just configured:

Datenquellenname	Тур	Beschreibung	
AbiT	System		
BASE-Dateien	Benutzer		
Excel-Datelen	Benutzer		
Microsoft Access-Datenbank	Benutzer		
Project Wizard	Benutzer	Eclipe KnowledgeWizar	d
K.	System	XE on remote machine	
c.]	11		
~,		Nec	
Eine Computerdatenquelle ist	an den jeweiliger	n Computer gebunden und kar	nn
nicht gemeinsam verwendet v	verden. Benutzer	datenquellen sind sowohl auf	einen
Many # yar ble buch auf aman (omnuter testoele	of Systemdateog jelen konn	80

then enter the password for the user HR. You can also just overwrite the User Name with a different user you want to connect to:

Oracle ODBC Driver Connect	×
Service Name	
daust3.opal-consulting.de:1521/	
User Name	
hr	Cancel
Password	About

then select the relevant tables by holding down the control-key and click on the table names. Then hit OK.

	OK
	Cancel
	Select All
	Deselect All
~	

Voila! The tables are linked and you can start using them:

One Rowa Silve	×Aシ田圃	010	CORPORTMENTS Table		
Otjects C	eete teble in Deelgn verv	D	EPARTMENT DEPARTMENT	MANAGER_ID LO	CATION ID
1 192401 C	eate table by using voterd	•	Administration	200	1700
0 5 000	este table by enterrig deta		20 Marketing	201	1800
- 9 18	(Denwithenits		30 Purchasing	114	1700
-9-1	peromi		40 Human Resource	203	2400
Reports .			50 Shipping	121	1500
A Course			60 IT	103	1400
1000			70 Public Relation	204	2700
Marcon .			80 Sales	145	2500
Contraction of the			90 Executive	100	1700
Contraction of the local division of the loc			100 Finance	108	1700
Orsages .			110 Accounting	205	1700
Fa-pitrs			120 Tenanury		1700
ALCOHOLDER .			130 Corporate Tax		1700
1			140 Cantrol And Cre		1700

Just be aware of firewalls!!! If you cannot connect to the remote machine the reason can be that port 1521 is blocked by your firewall!

3.3 Database Network Setup

You may have the alabel program on different XP or Vista workstations connected to an Oracle database server. You have to do the following install operations on the workstation and server.

Workstation Tasks

- 1. Install the alabel program on each client by running the setup
- 2. Start the alabel program and register the product (requires internet connection).
- 3. You have to install the Oracle client.
- 4. You have to install the Oracle OLE DB software.
- 5. You have to configure the ADOConnectionString.ini

Server Installation Tasks

- 1. Run the create user script
- 2. Run the create alabel table script on the server
- 3. Import the sheet specification csv file.

The ADO connection string is located on the local workstation in the directory c:\Alabel\bin and looks like the following.

Provider=OraOLEDB.Oracle.1;Password=PostageStamp;Persist Security Info=True;User ID=PostMaster;Data Source="rms9seal";Extended Properties=""

You have to change Source above to match the oracle tnsnames.ora configuration name you have for your Oracle server installation configuration. Run the oracle installer as shown in the next steps to install the client.

Gracle Universal Installer: Welcome	
Welcome	
The Oracle Universal Installer guides you through the installation and configuration of yo Oracle products.	our
Click "Installed Products" to see all installed products.	
7 6	
	X
Deinstall Products.	
About Oracle Universal Ins	staller
Exit Help Installed Products Previous Ne	xt)
ORACLE"	

🗟 Oracle	Universal Installer: File Locations		
File L	ocations		
Sourc	e		
Enter th	e full path of the file representing the product(s) you want to install:		
Path: Y	1.setuploracle9.21Disk11.stage1products.jar		Browse)
Enter or Name:	select an Oracle Home name and its full path: OraHome92		
Path:	c:\oracle92		Browse
			•
	· · · · · · · · · · · · · · · · · · ·	About Oracle Univer	sal Installer)
E	it Help Installed Products	Previous	Next
DRACI	E		

Oracle Universal Installer: Available Products	
Available Products	
Select a product to install.	
C Oracle9i Database 9.2.0.1.0	
Installs an optional pre-configured starter database, product options, management tools, networking servic basic client software for an Oracle database server.	ces, utilities and
C Oracle9i Management and Integration 9.2.0.1.0	
Installs the management server, management tools, Oracle Internet Directory, Oracle Integration Server, ne services, utilities and basic client software.	stworking
Oracle9i Client 9.2.0.1.0	
Installs enterprise management tools, networking services, utilities, development tools and precompilers an software.	d basic client
	\sim
Product	Languages
Exit Help Installed Products Previous	Next
DRACLE	

Woracle Universal Installer: Installation Types	
Installation Times	
Oracle9i Client 9.2.0.1.0	
What type of installation do you want?	
Administrator (798MB) Installs the management console, management tools, networking services, util, basic client software.	
Runtime (193MB) Installs tools for developing applications, networking services and basic client software.	
Custom	
Enables you to choose individual components to install.	
Exit Help Installed Products Previous	Next
ORACLE	

Available Product Components Dracle9i Client	Oracle9i Client, Which of these compo	ments do
ou want to install?	Install Status	6
Oracle9i Client 9.2.0.1.0	Reinstall	
Oracle Enterprise Manager Products 9.2.0.1.0	Not Installed	
Oracle Network Utilities 9.2.0.1.0	Installed (v.9.2.0.1.0)	100
Oracle Database Utilities 9.2.0.1.0	Not Installed	
Oracle Java Utilities 9.2.0.1.0	Not Installed	
SQL*Plus 9.2.0.1.0	Not Installed	
SQL*Plus Extension for Windows 9.2.0.1.0	Not installed	
Oracle JDBC/OCI Interfaces 9.2.0.1.0	Not Installed	

If you are on an XP machine, you will need to download the Oracle OLE DB which can be obtained from the following web address. http://www.oracle.com/technology/software/tech/windows/ole_db/htdocs/utilsoft.htm

The following screens show the installation of the OLE DB.

💥 Oracle Universal Installer: Welcome	
Welcome	
The Oracle Universal Installer guides you through the installa Oracle products.	ation and configuration of your
Click "Installed Products" to see all installed products.	
	-
	A A A A A A A A A A A A A A A A A A A
	Deinstall Products
	About Oracle Universal Installer
Exit Help Installed Products	Previous Next
ORACLE	

🐱 Oracle	Universal Installer: File Locations		
File I	ocations		
Sourc	e		
Enter th	e full path of the file representing the product(s) you want to install:		
Path:	Documents and Settings\administrator.RCO\Desktop\Disk1\stage\products.jar	-	Browse
Destin Enter of Name:	ation select an Oracle Home name and its full path: OraHome92		
Path:	c:toracle92	-	Browse
			\sim
	About Oracle	Unive	rsal Installer
E	it Help Installed Products Previous	T	Next
ORACI	E		



3.4 RMS Label Configuration

There are several things you have to do when you want to use the label software with the record management server. You only run the script once.

Task	Description
SQL Script	Using SQL Plus connect to the record management server oracle instance and run the script file OcsdRmsSpecialFolderTypes.sql.
Folder Images	Copy the folder images to the rcoimages directory (maybe located on different drive) c:\Inetpub\wwwroot\web\Image2000\jakarta\webapps\Image2000\rcoimages
Server Configuration File	Modify the following server properties file (maybe located on different drive). c:\Inetpub\wwwroot\web\Image2000\Server\conf\ You want to add or change the following lines that specify where the data is stored when you run the Tool menu Label command. Note the directory path is located on the web server. This directory path must be shared so that the local

workstation can open a file in this directory.	
#Label Directory Information	
Label.Directory = $C: zz $	

Sharing You have to share the Server Configuration File so that a workstation that has the label program installed can open a data file. When you run the RMS I find that is a good practice to name the file so it is easily recognizable. For example suppose you are printing labels for some records called Agreements then you would name the file Agreements.txt.

Test that the system works by first checking you have the coding fields for each new folder record type. Create a folder for each new type (See Example data files in this document) and add coding fields. For each new type create a label data file. Run the label command. You can use a program like notepad to verify the data file. Run the label program and open the data file you created and verify the label has the right look as described in this document.

4 Getting Started

When you start the program you will see the following display screen.



5 Common Tasks

5.1 Horizontal Folder Label

When you have a large amount of information to put on a horizontal label you need several things. First where do you get a large horizontal folder labels?

You can order the labels from http://www.onlinelabels.com/products.htm. They have 2.1" x 8" white matte labels \$250. for 1000 sheets = 5,000 labels. You would want to break up the print job into 5 parts. Each part would be 200 sheets or 1,000 labels.

Here is a sample of the folder label. We will have to truncate some of the description1 fields since they are too big for the label.



The year field (last 2 digits) are two different text blocks and I will make the excel folder label spread sheet.

Please tell me what colors you like for the background.

Character Group:		Alp	bha	Numeric	Other
	Backgrou	nd	Text		Sample
0					000
1					111
2					222
3			-		
4					444
5					555
6					666
7					777
8					888
9					999

5.2 Vertical Labels

Historically, this design began with only a single vertical folder label whose layout is shown in Figure 1 below. In the first design there was only a single year-value color block at the top of the label. In Figure 1, the top color block shows the last two-digits of the year as 02.

The top color block was followed (going down the label) by a large white middle area that contained some text on the left vertical side and contained a single numeric barcode value on the right vertical side. The text consisted of three separate text strings. The first text string was the full date in MM/DD/YYY format, the second text string was just a repeat of the numeric value of the barcode number, and the third text string was the folder title. The numeric barcode was in Code39 barcode and the barcode number could contain fewer than 6 digits.

The bottom portion of the label consisted of the color block values of the barcode number where the digits were separated out from top to bottom. Again, study Figure 1 below to get a general understanding of the layout of this first type of vertical label. When the barcode number contained less than 6 digits the unused space was to be used by the middle section of the label.

In August of 2003, the design of the vertical folder label was expanded to include six additional vertical folder label types. The six types can be categorized and named as follows.

- 1. Agreement Folders
- 2. Ordinance Folders
- 3. Annexation Folders
- 4. Purchasing Specification Folders
- 5. Construction Folders
- 6. Policy and Legal Opinion Folders

Since we already had an original vertical folder design, we will now call our original design the 0th vertical folder type and just name it

0. Vertical Folder



Figure 1. Vertical Folder Label Layout.

The six new vertical folder label types can also be considered to have the general format of the label in Figure 1 above, where the label is divided into three separate areas. The top color block area has its information and its colors determined by other information outlined in the new tables and figures shown below. The middle text and barcode area will contain some text strings and barcode, but the text strings are determined by information specific to the folder type. The bottom color block area will also consist of more information specific to the new vertical folder types.

The top color block will begin with a single block that has a solid color. The rule for determining the top block color is simple in all but two cases. The table below contains the rules for four of the six new label types.

Folder Type	Color Name	Color Sample	RGB Values
1. Agreement	Special Exception	See Next Table	See Next Table
2. Ordinance	White		R=255 G=255 B=255
3. Annexation	Pink		R=255 G=0 B=255
4. Purchasing	Gray		R=166 G=166 B=166
5. Construction	Special Exception	See Next Table	See Next Table
6. Policy	Purple		R=128 G=0 B=128

Table 1.

The top block color rules for **Agreements** and **Construction** are special cases and depend on what are called Districts. Districts are numbered between 1 and 14, although what are called Joint Districts will not be designated by a number, but by the word ALL. The only other item of interest is that not all the numbers from 1-14 are used. The table below should be considered complete because it contains all and only the numbers that are actually used.

District Number	Color Name	Color Sample	RGB Values
1	Light Blue		R=0 G=204 B=255
2	Orange		R=255 G=153 B=0
3	Brown		R=153 G=51 B=0
5	Green		R=0 G=128 B=0
6	Gold		R=255 G=204 B=0
7	Light Green		R=204 G=255 B=204
11	Yellow		R=255 G=255 B=0
13	Blue		R=0 G=0 B=255
14	Red		R=255 G=0 B=0
ALL	Light Blue (same as 1)		R=0 G=204 B=255

Table 2.

Next we want to describe the contents of each of the six new types of vertical folder labels and where the information comes from in terms of the coding field names. New coding field names are shown in bold blue text while other coding field names are in bold black text.

5.3 Shelf Labels

A shelf label helps people find one or more boxes that are stored on a particular rack and on a specific shelf. In the ALABEL program you can create labels using the Edit – Create a Shelf Label command. It will prompt you for a barcode and will use the Avery 5160 sheet stock for the label template dimensions.



The shelf label barcode consists of 0170010002SHB. When you print the barcode the title under the barcode is the Aisle Bay Shelf followed by the Site Code.

The shelf label printed on an Avery 5160 label looks as follows.



The following is another example of a shelf label where you have 4-2digit codes for site, aisle, bay and shelf.



Every record center has their own method for labeling shelves and their own way of creating coding fields. The system has to map a shelf code to the appropriate coding fields using a predefined mapping system.

While you can create your own shelf label the RMS application only works with the following 2 formats.

Here are some examples of shelf codes.

0040150003SHB = aisle 4; bay 15; shelf 3; site HB

11-10-57-31 = record center; aisle; bay; shelf

5.4 Phone Labels

On phones that have multiple lines there is an area where you can have a phone directory. When you use the Edit – Create PhoneList24 you will see the following dialog that allows you to enter numbers. The program will print on an 8.5×11 inch white paper.

To make the label follow the steps listed below.

- 1. Print the label to your laser printer.
- 2. Cut the label out by following the outside lines.
- 3. Remove the plastic cover on your phone.
- 4. Insert the paper directory
- 5. Re-insert the plastic cover on your phone.

12	24
11	23
10	22
9	21
8	20
7	19
6	18
5	17
4	16
3	15
2	14
1	13

6 Label Designer

6.1 Introduction

The program named **ALABEL** is a program for printing labels on sheets of labels.

While **ALABEL** can interface with a database, most of your design work with **ALABEL** can be done assuming you are making just one label. In fact, **ALABEL** is called *A LABEL* because it is usually only used to design and print a single label at a time. However, you can print multiple labels at a time with **ALABEL** assuming all the labels are identical. You can also print entire sheets of labels at one time. You can also print multiples where the data from different labels comes from different records in a database.

If you are reading this help file for the first time, and if you have not already read the Tutorial help file, then we highly recommend you read the Tutorial first. The Tutorial is a special help file specifically designed for users new to the **ALABEL** program. Just look for it under the **Help** menu. When finished with the Tutorial you should have a

basic understanding of how the program works and then the information contained in this help file will be more meaningful.

Before describing the **ALABEL** program it will be helpful to introduce some terminology. There are two basic kinds of information that **ALABEL** uses. One type completely describes an entire sheet of labels and a file named **DefaultSheetSpec.txt** is one of two default text files that the **ALABEL** program uses when it first runs. A sheet specification is only concerned with the layout and size of the labels on a sheet of labels. A sheet specification is not concerned at all with the actual information that gets printed on a label.

You can have as many different sheet specification files as you wish. Each different sheet specification file is used for each different size sheet or a different number of rows or columns of labels or for different sized labels. Usually sheet specifications are for standard 8.5x11.0 sheets, but the specification allows for any size sheet used with any printer. Sheet specifications only assume the labels have a regular type of layout pattern, usually determined by a number of rows or columns of labels. There is no restriction on the number of either rows or columns and in rare cases either number might simply be 1. In fact, an entire sheet may be considered to represent one gigantic label. At the other extreme, sheet specifications also allow for labels that are delivered on continuous roll sheets. In that case, each individual label may be considered as its own "sheet", even though to the end user the labels don't appear on actual sheets. This program works with any printer installed with the Windows operating system and that includes specialty printers dedicated to printing only one label at a time from a continuous roll.

The **ALABEL** program comes with several popular types of Avery label sheet specification files, but such files are easy for anyone to create on their own. We recommend naming your sheet specification files with names like **MyLayoutSheetSpec.txt** where the trailing part of the filename can be used to automatically identify the type of file.

The second type of information is only concerned with what gets printed on an individual label independent of the format of the label sheet. The file named **DefaultItemsTemplate.txt** is an ordinary text file that completely describes the contents of a particular label design. The **ALABEL** program allows you to have many different label designs. The file **DefaultItemsTemplate.txt** is just an example of the default design that gets loaded when the program runs. Designs that you create will usually have a different and unique name, although we recommend names like **MyDesignItemsTemplate.txt**.

We will use the terminology *Label Sheet* or a *sheet specification* to refer to the format of an entire sheet of labels that usually appear on an $8\frac{1}{2}x11$ sheet of paper. We will refer to an *Item Template* as any one of the individual items that may appear on a single label. So a sheet specification is primarily concerned with the size and position of labels while template items are the objects that contain the data that is eventually printed on a label.



When the ALABEL program is first started you may see a screen like the following:

You can see what appears as a large white rounded-corner rectangle that represents a single printable label. The white label is surrounded by a brown background that could represent a cardboard box to which the label will be attached. Outside the brown border to the left and top are two yellow areas that represent rulers.

There are ten label template items on the above sample label. Three of these are what we call geometric label items. There is a black slanted line, a light blue rectangle, and a green oval shape. There is some text that says "**Regular Text String**" and there is a barcode item that also has text associated with it that shows **Barcode**. Another text item is what we call **Rotated Block Text**. This is text that has a colored rectangular background and the text has been rotated vertically. The item in the lower-left corner is a special kind of 2-dimensional barcode.

The last three items are the Lincoln penny, the dollar bill, and the stamp. These three items are what we call a Picture Images. Sometimes we may refer to Picture Images as bitmaps or as graphic images. You can use 24-bit color bitmaps and JPEG image files. However, a JPG file should contain a bitmap equivalent 24-bit color image. JPEG images must end with a .JPG file extension. Actual Windows *.BMP files and *.JPG files are the only kinds of images that you can rotate at 0 or 90 or 180 or 270 degrees counter-clockwise. You can still load and use any other kind of a Windows *.BMP image file or a JPEG without any rotation, but you can only rotate 24-bit color bitmaps at 90 or 180 or

270 degrees. If you try using a JPG file whose colors don't look correct, just convert the file to a true 24-bit color BMP file and then it should be OK.

Probably most labels you create will only have multiple text strings and perhaps one or two barcodes. You may have less need of the three geometric objects, but they can sometimes be used to draw an example of a company logo or to make an artistic design. You may also use a Picture Image for a company picture or a logo. If you have a part that is packaged in a box, you might also use a Picture Image to show a picture of what the box contains.

6.2 Using Label Items

There are eight different types of label items that can be printed on any label.

- 1. Lines
- 2. Rectangles
- 3. Ovals
- 4. Text Strings
- 5. Bar Codes (normal 1-dimensional)
- 6. Picture Images
- 7. Rotated Block Text
- 8. 2-Dimensional Bar Codes

For example, a company name and address and telephone number might be printed on every label. In this case, each separate line of the address as well as the telephone number would be examples of separate Text Strings. A serial number may also be typical of a text string, but this is usually a serial number that will only be read by a human being. Text strings can be rotated at either 0 or 90 or 180 or 270 degrees counterclockwise with 0 degrees denoting normal horizontal text.

A normal 1-dimensional Barcode also has a text string associated with it, usually a short string of numbers and/or letters that uniquely identify an item. Barcodes are usually serial numbers that are required to be read using a special barcode reader or barcode scanner. Barcodes can be any color (they are usually black) and they can be rotated either 90, 180, or 270 degrees counterclockwise from the normal 0 degrees horizontal position. We will refer to 1-dimensional barcodes as 1D barcodes.

The text of a 1D barcode can be printed either above or below the barcode, and that text can be automatically centered or can be left or right justified with the set of bars that make up the barcode. Barcode text can be bold or italicized or underlined and can be any font point size. The individual bars in 1D barcodes can be made with any size height, and the width of the smallest bar can also be adjusted to accommodate either very large 1D barcodes for very large boxes or very small 1D barcodes that fit on small objects like test tubes.

A special kind of barcode is the 2-dimensional type where the requirement is to encode more information than just a short string of characters. A 2-dimensional barcode is

special and won't show any printed text that you can read, but each 2-dimensional barcode can contain many hundreds of characters like you might find in an ordinary text file. In fact, each 2-dimensional barcode always has an associated file of information. A 2-dimensional barcode like that shown in the above figure always appears to consist of jagged little blocks in its interior while its left and right vertical sides appear like long or tall bars that extend the same way up and down across the entire vertical length of the barcode figure.

Lines, Rectangles, and Ovals are the only three label items that are called geometric objects. In this help file we may use the term object in place of label item. Text Strings and 1-D barcodes both contain text but have other attributes that distinguish them from the three geometric objects. All objects contain their own individual set of attributes. For example, each different Text String is drawn with its own font, size, color, and either bold, italic, or underline attributes. Each different Rectangle or Oval has its own line/edge pen width size and pen color and its own interior fill color.

Any line object can be drawn between any two points on the label. Thus lines can be slanted, or they can be made perfectly horizontal or they can be made perfectly vertical. Lines also have thickness and color attributes.

Rotated Block Text can be rotated from normal text either 90, 180, or 270 degrees counterclockwise. Thus you can also think that rotated block text can run in directions such as from West to East (normal text), or South to North, or East to West (upside down text) or from North to South. The text string within a Rotated Block Text object is usually centered within the containing rectangle, but the text can be given an attribute that causes it to stick to either the top or bottom or left or right edges of the rectangle. In the above figure the text is centered within the rectangle. The next figures show the other four kinds of alignment, left, top, right and bottom in that order.



When the block is more horizontal then the left, top, right and bottom types of alignment appear as:



Rotated Block Text

Rotated Block Text

Rotated Block Text

Rotated block text can contain more than just simple short strings. Rotated block text has the special property that it can contain a lot of text that automatically gets word wrapped within the block. In addition to word wrapping, the text can be automatically justified left or right or center within the box. The block text can even be rotated at 90 or 180 or 270 degrees and the word wrap option can be applied either horizontally across or vertically up and down within the block. The next figures illustrate some of the options.

This is a small paragraph of word wrapped text that has been automatically formatted with left justification.

This is a small paragraph of word wrapped text that has been automatically centered. This is a small paragraph of word wrapped text that has been automatically formatted with right justification.

6.3 Working with Individual Objects

The two major activities that apply to editing any label item are changing its position on the label and altering its content and other attributes such as size and color.

To position a label item object, all you need to do is grab the object with the left mouse button and drag it to its final position on the label. When you left-click an object with the mouse, the object will be re-drawn with handle bars and if you continue to hold the left mouse button down, the mouse cursor will change to show 4 arrows indicating you can drag the object in any direction to re-position it.

For example, when the oval object shown below is not selected it appears as:



Whenever this oval is selected you will see little solid black handle bars drawn around the edges of the object as shown in the next figure below.



When this object is selected and you continue to hold down the left mouse button over the object then you will see the mouse cursor over the image changes to 4 direction arrows as shown in the next figure below.



The four arrows indicate you can move or drag the object in any direction. As you continue to hold the left mouse button down and move the mouse to drag the object you will see a rectangular outline of the bounding box that surrounds that object.



After moving the outline (object) to its final destination you can let up on the left mouse button and the object will be redrawn in its new position.

In addition to just grabbing an object with the mouse and moving it until it looks about right, there are a couple of other ways to make the position of any object more exact. When an object is selected and it is being moved, you will see the extents of that object shadowed along the yellow rulers. The shadowing consists of additional yellow parts next to the rulers.



In the above figure, the rectangle object has been selected and you can see the magnitude of the object in terms of its width and height being shadowed along the rulers. The colored rectangle is $\frac{1}{2}$ an inch wide and it is $\frac{3}{4}$ of an inch high.

The exact position of the upper-left corner of the colored rectangle can be read off the rulers. In this example the upper-left corner is positioned $\frac{1}{4}$ of an inch from the left side of the label and it is positioned $\frac{1}{8}$ of an inch below the top of the label. Note that the rulers are drawn such that the 0 horizontal and 0 vertical marks start at the very upper-left corner of the white label. So there is a $\frac{1}{8}$ th inch white space between the top of the label and the top of the rectangle. There is a $\frac{1}{4}$ th inch white space between the left edge of the label and the left side of the rectangle.

A second way to make the position of an object exact is to first select the object, and then click the **Properties** button that appears in the top tool bar. Each of the eight different types of objects has a unique dialog box that shows the properties of the object. For the above rectangle the dialog would appear as:

Rectangle Properties	_ 🗆 🛛			
Line/Edge Thickness Pixels: 2 Line/Edge Color				
(All Units are in Inches)				
Distance From Label Left Edge: 0.25				
Distance From Label Top: 0.125				
Width of the Rectangle: 0.5				
Height of the Rectangle: 0.75				

In the above figure we can see four edit boxes that can be used to exactly determine the position and size of a rectangle.

While on the subject of sizes, you can choose between inches and centimeters. All you need do is click in the upper-left corner between the two rulers to change to one type or

the other. Just click directly on the 2-letter abbreviation for inches **in** or **CM** for centimeters and the rulers will be re-drawn using the currently selected type of units. Inches are the default.



6.4 More on Handle Bars

The three geometric objects and a Bitmap object and rotated block text all have different handle bars than the Text String and the two kinds of Bar Code objects. The solid black handle bars like those shown with the oval object above are used to resize or reshape a geometric object or a Bitmap or the block that surrounds text. You can resize or reshape any geometric object by grabbing one of the solid black handle bars and dragging the handle bar. The size, shape, and position of the object are automatically updated as you drag the mouse.

You can reshape a Bitmap in basically the same way you reshape a geometric object, except the Bitmap will retain the aspect ratio of the original picture. Whether the Bitmap is made larger or smaller, the image will stretch or shrink to fill the rectangular area provided for the image.

One other special note about Bitmaps is that when you create a Bitmap object, you will be prompted to load a Windows file of the type *.BMP. You can also load *.JPG files. Whatever file is loaded, the program will remember the entire file path that leads to the directory where the file is stored. This program does not make a copy of the bitmap, it only notes where the file is stored on your computer. If you delete a bitmap or JPEG image and do not tell this program you have done so then this program will not properly load the label items if you save them in a template file. So be careful to leave bitmap and JPEG files where this program can find them.

Another thing to note about bitmaps and JPEG images is that you can rotate any 24-bit color image in increments of 90 degrees counter-clockwise, just like you can rotate text strings, and all geometric objects. If you load a bitmap that is not 24-bit color then you can still use it and print it, but the rotation feature will be disabled in both the toolbar and in the bitmap properties dialog box. In some cases you may be advised to use another program convert all images to 24-bit color BMP files.

Rotated block text has the special property that the rectangle block can be stretched to any size, but no matter how big or small you make the rectangular background block, the text string it contains can be drawn within that background rectangle. For instance, consider the three examples of centered rotated block text that are shown below.


The Text String and both 1D and 2D Barcode objects have only four handle bars, one in each of their four corners, but those handle bars are drawn as empty white squares. The empty white squares (as opposed to the solid black squares) are only used to indicate the object has been selected.

However, you cannot grab and drag the empty white square handles to resize or reshape either a Text String object or a Barcode object. This is because the size, including both the width and height of both Text Strings and 1D Barcodes, are determined by the size of their respective fonts. When a Text String or a 1D or 2D Barcode object is selected you will see handle bars like those shown in the next figure below.



These are the only three objects that cannot be resized by grabbing and dragging one of their handlebars. Since a 2D barcode does not have an associated font, because it does print any related text, the size of a 2D barcode is determined by its number of rows or its number of columns of data, or its defined aspect ratio. The dialog box for editing 2D barcode properties will be shown later in this tutorial.

To edit an element's properties, right-click the object with the mouse and select **Properties...** from the pop-up menu that appears and you will open up a dialog box that is specific to the type of the selected object. The next figure shows the popup menu that appears after we click the oval object with the right mouse button.



After you select the **Properties...** menu item from the above popup menu you will see a dialog box like the following that allows you to edit all the specific properties or attributes of the selected oval object.

📟 Oval Properties	
Line/Edge Thickness Pixels: 2	
	(All Units are in Inches)
Distance From Label L	eft Edge: 1.404
Distance From La	abel Top: 0.351
Width of	the Oval: 0.25
Height of	the Oval: 0.25
🔽 Fill W	ith Color Fill Color
🔲 Non-Printable	🥅 Make a True Circle
	Cancel Help

In the above dialog box you can see a sample Oval object and as you change the attributes using the controls in this dialog box you will see the sample object change so that you can always see how the selected Oval object will look before you close the

dialog. The checkbox that shows the option to *Make a True Circle* is only a temporary option that gets applied just once after you close the dialog. Otherwise, you can later drag the sides or corners of a circle to make an oval or an ellipse shape.

📟 Bitmap Image Properties		
The original picture dimensions in pixels is 286W x 283H. The Assest Ratio = 1,01		Rotation Angle:
Complete File Path:		© 0
(All Units are in Inches) Distance From Label Left Edge: 2.796	6	
Distance From Label Top: 0.862		C 90
Width of the Picture: 0.75 Height of the Picture: 0.742	6.4	
Resize Preference:	Validity and a value of the second	C 180
Use the Width Non-Printable Use the Height	e	
Ok Cancel Help	0	C 270

For bitmap objects the dialog box gives filename and size information about the Bitmap.

6.5 Unselecting Objects

If you want to unselect the currently selected object, you can click the mouse in any white space area that is not occupied by any object and you will see the handle bars will disappear from all objects, meaning no object is currently selected. There is also a menu item under **Edit** that allows you to unselect all objects.

6.6 Working with Multiple Objects

Although you might select only one object at a time to either move or edit the properties of that object, you can also select a group of objects and perform special operations on the selected group.

One such special operation is moving the group as a whole while maintaining the relative positions of all the objects within the selected group. To do this you first need to select the objects that make up the group. One way to select a group of objects is to click on the first object in the group with the left mouse button. Then, while holding down the SHIFT

key on the keyboard, left-click on all the other objects you want in the group, one at a time.

If you mistakenly click an object you didn't mean to select, as long as you hold down the SHIFT key, you can click that object a second time to unselect it. The program will keep track of which item you selected first, and which item you selected last. You cannot unselect the first item, even if you hold down the SHIFT key. As you will learn below, the first and last selected items play significant roles depending on the operations you perform on the group.

After selecting the last item in a group, you can let up on the mouse and the SHIFT key. Note that all selected items remain selected. You can see they have grown handle bars. Then you can left-click on any object in the group and while holding down the left mouse button, you can drag the entire group. As you perform this dragging operation, you will see the rectangular outlines of the individual objects and you will sense that the entire group is moving while at the same time the relative positions of the objects within the group remain fixed. When you let up on the left mouse button the group will be re-drawn in its new position.

If you need to make a further small adjustment for the entire group, you can just continue by left-clicking any object in the group and move the group a little more. All the group objects remain selected until you specifically unselect them. Left clicking in any empty white or brown space area would unselect all the objects in the group. Left clicking on any new object not in the selected group will cause the entire group to become unselected and the new object may then serve as the first selection in a new group, or it may just be used as a new single object selection.

Another way to select multiple objects is to use the left mouse button to draw a rectangle that completely surrounds those objects and then let up on the mouse. All the objects that were contained within the bounding rectangle will be selected as a group.

There are also two menu items under Edit that allow you to select, or unselect, all objects at once. You can also just click in any white space not occupied by any object to unselect all objects. In any case, you will always know which objects are selected or not, because selected objects will always be drawn with handle bars. Unselected objects do not appear with any handle bars. You can also press CTRL+A using your keyboard to automatically select all items at once.

6.7 Working with the Alignment Palette

There is a special tool palette that is called the Alignment Palette that provides many ways to align objects relative to one another or to align a whole group of objects relative to the entire label. The Alignment Palette is a separate window that stays on top of the Label window and it appears as:

IIII A	×			
Ů L	÷L+	[́∏]	гŢ	
	ţ]↓	¶ L⊔ L	u tu	l↑

If you don't see the Alignment Palette, you can cause it to show itself by selecting the menu item under Options that has Show Alignment Palette as its caption. When this menu item is checked then the Alignment Palette will be visible. To make the Alignment Palette disappear you can select this same menu item again to Hide the Alignment Palette. When you resize the program window the Alignment Palette will automatically attach itself to the lower-right corner of the program window. You can manually move it anywhere else on your screen.

In any event, when the Alignment Palette is visible you will see 10 special buttons on its toolbar that can help you align groups of objects. You can see what function each button performs if you move and rest your mouse over a button without clicking that button. A little popup hint tells the purpose of each button.

Before showing examples of working with each of the 10 buttons on the Alignment Palette we need to emphasize that in general, you should select the objects in your group one at a time using the SHIFT key on the keyboard. You should not just drag a rectangle around the objects nor should you use the **Edit** menu item that allows you to select all objects at once.

The reason for avoiding the other two types of group selection is that all Alignment functions require using a specific first selection item. Some Alignment Palette functions also require a specific last selection. The only way to insure you know which object is the first or last selection is to select the items one at a time. The other two selection methods only exist for creating groups of objects where the entire group will either be moved or deleted. All Alignment Palette functions assume you have specifically selected the first and last items in the group.

The button in the upper-left corner is used to align a group of objects all at once. The hint for this button says *Align Left Edges* and the left pointing arrow on the button gives a clue as to the purpose of this function. To show an example of the use of this button, assume you have selected a group of 4 objects like those shown in the next figure below.



When you press the button these four objects will all become aligned with their left edges matching the left edge of the first selected object in the entire group. In the above example we assume Object #1 was the first selected object. The next figure shows the new alignment of these four objects.





You might note that aligning objects by their left edges only changes the horizontal positions of the objects. The relative vertical positions of the objects are unchanged.

Next, if we press the button then these four objects will become aligned with the right edge of the first selected object. The objects will then appear as shown in the next figure below.



Consider the three objects shown in the next figure below.





However, if we press the alignment button with the downward pointing arrow then these objects would become aligned on their bottom edges, with all bottom edges matching the first object's bottom edge.

Aligning objects by their top or bottom edges only changes the vertical positions of the objects. The relative horizontal positions of all objects in a group would remain the same.

Next, the two buttons and are used to align a group of objects by either their horizontal or vertical centers. The first selected object in the group is significant because its vertical (horizontal) center is the vertical (horizontal) position that is used to make the alignment with all the other objects in the group.

As an example using the most recent figure above, if we were to press the vertical

alignment button the group would change to have the following alignment.

The four objects shown in the next figure below have a random horizontal alignment.

If we press the center horizontal alignment button then this group gets centered horizontally with the first object's horizontal center as shown in the next figure below.

The two buttons and are used to center an entire group within the entire label. The arrows on these buttons indicate whether the centering is horizontal or vertical.

As an example, consider the next figure that shows a group of 4 objects near the upperleft corner of the entire label.

Object #1	
Object #2 is longer	
Object #3	
Object #4 is the longest of all	

After pressing the horizontal center button these objects, as a group, will appear in the horizontal center of the label.



Note that it is the group as a whole that has been centered (horizontally) on the label. The objects still have their same relative positions within the group before they were moved. However, this group is not vertically centered on the label, but we can do that by

pressing the button . We should then see the result of the vertical centering of the entire group over the entire label.



The last two buttons we need to discuss appear on the Alignment Palette as and

These buttons are used to space objects equally, where the equal spacing is for either the horizontal or vertical directions as indicated by the arrows and little object positions that appear on these buttons. Looking at the last figure above, we can see that

the four objects are not spaced vertically with equal spacing. If we press the button then the above figure will change to the following.



Now there is equal vertical spacing between the four objects in the above figure. It is significant to note that the first and last selected objects in the group did not move at all. Only the other objects moved. However, the positions of the first and last selected objects were used to determine the amount of the spacing that should be applied to the other objects. So this is a case where it is important that you deliberately choose which object is first and which object is last.

In general, before applying any equal spacing function, we recommend you unselect all objects, and then click each object in the group with the mouse, one at a time, all the while holding down the SHIFT key on the keyboard. For vertical spacing, select from top to bottom as in the above figure. For horizontal spacing, select from left to right.

As an example of applying equal horizontal spacing, consider the group of four objects shown below. Note that these objects are aligned by their vertical centers, but there is not equal horizontal spacing between the objects.





The significance of the first and last selected objects in the group is that they did not change positions. Only the middle two objects shifted over horizontally to make equal horizontal spacing between all four objects.

6.8 Overlapping Objects and the Layering Order

The physical labels that you print on are not very big. So it may happen that you have two objects that are close together. Usually objects shouldn't overlap, but when you want to have one object overlap another, you may also want to determine which object is on top of the other. The Label program uses what is called a layer order number to determine the order in which objects are printed. This order affects how two overlapping objects appear, but is otherwise not noticeable when objects don't overlap.

For example, consider the following figure in which Object #1 is a Text String object that is printed on top of a Line object.

Object #1

Now if you right click on Object #1 and select **Send To Back** from the popup menu that appears then the figure changes to the following

Object #1

The difference between the above two figures has to do with the layering order of the Text String and the Line. In the first figure, the Text String Object #1 is on top. In the second figure the Line is on top. There may be times when you desire either type of effect so you need to be able to change the bottom-to-top layering of objects.

As another example, the next two figures show the two different overlapping orders for an oval and a rectangle. In the figure on the left the oval is on top and the rectangle is on the bottom. In the figure on the right, the same two objects are shown but the rectangle is on top of the oval.



The layer ordering of an object can be changed by right clicking the object and selecting either the **Bring To Front** or **Send To Back** popup menu item. Selecting **Bring to Front** gives the object the highest layer number and this makes the object the topmost object. Selecting **Send To Back** gives the object the lowest layer number and this makes the object the bottom-most element.

All objects are given a natural layer order number that corresponds to their creation order. The first created object has layer order number 1. The next created object has layer order number 2, and so on. The last created object has the highest layer order number and that is why the last created object is drawn last and appears on top of all other objects.

You can also think of a positive Z-axis that extends outward from the screen towards your eyes where the screen has a 0 coordinate. The Z-order numbers (layer numbers) get bigger as you move away from the screen toward your eyes. Each object occupies one layer and the lowest layer numbers are the layers that are drawn first and thus are on the bottom. The highest Z-order or layer number corresponds to the object that is on top and is drawn last.

6.9 Editing Objects

When you edit a Text String you will see a dialog box like the following.

🖩 Text String Properties						
Font Name: Font Point Size: Times New Roman 10 \$						
🔲 Bold 🥅 Italic 🥅 Underline						
Text Insert Today's Date Insert the Time Text Insert Today's Date Insert the Time Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of the Label Image: Content of th						
Distance From Label Left Edge: 0.208						
Distance From Label Top: 0.142 Text Message:						
Regular Text String						
Non-Printable Ok Cancel Help						

Sometimes you might use today's date or the current time to code an object, so if you press either button in the above dialog box the program append the desired information at the end of the current Text String.

The centering option shown in the above dialog box depends on the rotation angle. When centering on the label is chosen, and the angle of rotation is either 0 or 180 then the text string can have any vertical position, but its horizontal position is not changeable because the text string will be horizontally centered. On the other hand, if centering is chosen and but the rotation angle is either 90 or 270 then the text string can have any horizontal position, but its vertical position is not changeable because then the text string will be vertical position is not changeable because then the text string will be vertically centered.

As another example, when a 1-D Bar Code object is selected and you right-click the object to edit its properties you will see a dialog like the following:

ID Barcode Properties		
Barcode Font Name: Times New Roman	Barcode Font Point Size:	Print the Barcode Text
Barcode Type: Code 39 Extended Code 39 Code 128 (Set B) Code 128 (Set C digits only) POSTNET Centering Option: Center On the Label	■ Bold ■ Italic ■ ■ Rotation Angle: ● ● ▼ ● ● ● ▼ ● ● ● ▼ ● ● ● 1X⇒I ● 180 ● ● ● 270 ● ■ ■ ● 270	Underline izontal Text Position: Left Center Right Vertical Text Position: O Above O Below
Use the Edge Distance	(All Units are in Inches)	
Distance From Label Left Edge: 2.4	I15 X Wid	ith: 0.012
Distance From Label Top Edge: 0.1	66 Y Heig	ght: 0.27
Insert Today's Da Barcode Text: Barcode	ate Insert the Time	
□ Non-Printable □ Ok	Cancel Help	

The Bar Code text will appear in all upper case when you select the Code 39 type because Code 39 only allows all upper case text. Although the Extended Code 39 type allows lower-case letters, you may prefer using the Code 39 type as its barcodes take up less space on a label. This is important as labels tend to be relatively small. In general, Code 128 is more efficient and is usually preferable to using either Code 39 or Extended Code 39. If your text consists only of digits then choosing Code 128 (Set C digits only) is even more efficient than using Code 128 (Set B).

The POSTNET barcode type is only used to encode the ZIP code on address labels. The POSTNET barcode is normally only used when creating address labels for envelope mailings. POSTNET has some special properties; it never prints the text it contains, and its size is fixed and is not dependent on the font.

The option to print text under the barcode can be turned on or off (POSTNET ignores this). If you don't print the text under the barcode then all you will see are the bars of the barcode. The Barcode Font Point Size determines the size of the barcode (POSTNET)

ignores this setting too). Again because of limited space on a label you should use the smallest size font that is necessary to produce a readable barcode.

There are two options associated with centering or positioning a Barcode. When you select the option to center the Barcode on the label then you can try to drag the Barcode to an off-center position, but the Barcode will snap back to either the horizontal or vertical center of the label, depending on the current angle of rotation. When the rotation angle is 0 or 180 the barcode can be automatically centered horizontally on the label and in this case you can move it up or down to any vertical position. On the other hand, when the rotation angle is 90 or 270 then the automatic centering refers to the vertical position of the label, but in these cases you can move it to start at any horizontal position. When you turn off centering and use an edge distance you can position the barcode anywhere on the label. The type of automatic centering depends on the rotation angle. In fact both barcodes and text strings have the same behavior when automatic centering is chosen.

📾 2D Barcode Properties
Aspect Ratio (H/W): Requested # Rows: 9 15 Security Level (0-8): Requested # Columns: 1 1 2 3 2 (Interior Data Columns) Sizing Priority: Column Priority Column Priority
Complete File Path: Uefault2DBarcode.txt
Load From a File Save to a File Barcode Color
The 2D Barcode Data/Text (File Contents): 41 Good Encoding
This is the default 2D barcode data/text.
Non-Printable (All Units are in Inches) Centering Option
Distance From Label Left Edge: 0.116 Center On the Label
Distance From Label Top Edge: 1.101
Ok Cancel Help

The dialog box for a 2-D barcode object appears as:

The size of a 2D barcode object depends on how much data is contained in its associated data file. However, you can partially determine its size by choosing one of the three Sizing Priority options. Choosing Column Priority means the program will try to give the 2D barcode the number of data columns you request, and the program will then determine the number of required rows of data. Choosing Row Priority means just the opposite in which the program try to make the 2D barcode have the requested number of rows, and the program will then compute the required number of columns. However, the program will never use more than 30 columns of data, no matter how many rows would be required. Choosing Aspect Ratio Priority means the program will try to give the 2D barcode the aspect ratio of height to width as specified by the first edit box. In this case the program will automatically determine both the required number of rows and columns.

The number of rows must be between 3 and 90 while the number of columns must be between 1 and 30. The number of data characters is limited to 1700, but even fewer might be possible depending on the security level. The higher the security level the fewer the number of allowable data characters.

The two numbers shown with the above example dialog, that are just to the right of the requested number of rows and columns, are in blue text and are the number of rows and columns as determined by the program. Usually one or both of these will match the requested number of rows or columns in the edit boxes, but the program has the ultimate and final authority on exactly how many rows and columns are required by the 2D barcode. You can only request a desired dimension or aspect ratio and the program will do its best to honor your request.

Yet another example is the dialog box associated with rotated block text.

The Text: Font Point Size: Rotated Block Text 12 € Font Name: Vertical Text Alignment: Times New Roman ✓ Ø Bold Italic Underline © Center Ø Bottom 12 €
Font Name: Vertical Text Alignment: Word Wrap: Rotation Angle: Times New Roman Image: Color Map Type: Image: Color Map T
C Use 1st Character Color Map Horizontal Text Alignment: 270 C Use Year Color Map Left C Center C Right (All Units are in Inches) C Use Fixed Colors (No Color Map) Distance From Label Left Edge: 1.749
Fixed Colors: Distance From Label Top: 0.249 Fixed Text Color Color Map Width of the Block: 0.5 Fixed Background Color Height of the Block: 1.5 Block Centering Option: Non-Printable Draw the Block Background • Use the Edge Distance Ok Cancel Help

In the upper-right corner you select the rotation angle for the text. This angle is a number in degrees that represents a counter-clockwise rotation. 0 degrees represents ordinary text. If you want regular text without a background you can uncheck the Draw the Block Background checkbox. That just means the rectangular color block background will be omitted and this is how you can have just regular rotated text.

There are two groups of radio buttons for text alignment. One is the vertical option and the other is the horizontal option. Text alignment in this case refers to how the text is made to stick to the sides (or not) of the rectangular block. There are 9 different combinations as indicated in the figure below. Note that the word wrap option can be turned on or off as needed. The default is Word Wrap On.

Vertical Top	Vertical Top	Vertical Top
Horizontal Left	Horizontal Center	Horizontal Right
Vertical Center	Vertical Center	Vertical Center
Horizontal Left	Horizontal Center	Horizontal Right
Vertical Bottom	Vertical Bottom	Vertical Bottom
Horizontal Left	Horizontal Center	Horizontal Right

The Color Map Type determines how the color gets chosen for the block background. The simplest choice is to *Use Fixed Colors*. In that case you can choose the text color and the background color directly in this dialog. You will always see the two colors chosen in this case.

A more sophisticated type of color scheme uses what is called a *Color Map*. Use the button under the Font Point Size to bring up another dialog for editing the Color Map. Most people use the color map to make dynamically colored text or numbers. With both text and numbers, the color that is chosen depends on the first character in the text string. You can see in the figure below how you would set the colors for each different numeric digit. Alpha characters refer to the letters A-Z. Each different letter or digit can have its own text color and background color. Color Maps are used almost exclusively when the data in text strings is dynamic because it comes from a database. Different labels will generally have different text or numbers and thus different colors. Static data that you type in manually can have a fixed color scheme that you can directly select.

E C	olor Map Settin	gs							
File	Color Map								
Cł	naracter Group: A	lpha Numer	ic Other						
	Background	Text	Sample	_					
0			000						
1			111				Selec	ted	ltem:
2			222					A	
3			333					v	
4 5			555	Г	Backgrou	und Color:			Text Color:
6			666		Red:	255 🚖			Red: 255 🜩
7			777				sucur.		
8			888		Green:	l∩ I	Set Lolor		Green: U T Set Color
9			999		Blue:	0 韋			Blue: 0 🚖
					Select	t Backgrou	nd Color		Select Text Color
					Swap B	Background	d <> Text		Swap Text <> Background
					AIH	n Group Th	nis Color		All In Group This Color

6.10 Using the Edit Menu Undo and Redo

The ALabel program provides one level of Undo and one level of Redo when it comes to editing the properties of objects. This is a standard feature in many windows programs. The Undo/Redo functions are the first two menu items under the Edit menu. Each has a dynamic caption that changes as you edit objects. Thus these menu items indicate the latest operations that may be undone. Such operations can be as simple as moving or resizing objects or as severe as deleting objects or loading an entire template file.

As soon as you Undo an operation, the Undo menu becomes disabled and the Redo menu becomes enabled so you may Undo your Undo if you need to. Otherwise, the Undo menu gets turned back on as soon as you make another editing change to which an Undo operation can be applied. Only one level of Undo is provided.

6.11 Using the Copy Object Format Tool

The purpose of the tool that appears next to the Selection Tool in the left part of the lower

toolbar is to copy the format, but not the contents, of one object to another like object. This tool is called the Copy Object Format Tool. We will give one example of how this tool is to be used.

Suppose we place four text strings on a label:

New text string #1

New text string #2

New text string #3

New text string #4

We want to change the formatting properties of all four strings so that the font is a 16point bold and italic and blue color. We begin by selecting the first string and changing its properties by bringing up the properties dialog box for the first string. We make all the changes to the first string only.

New text string #1	
New text string #2	
New text string #3	
New text string #4	

Now wouldn't it be nice if we didn't have to bring up the same dialog box for the other three strings to manually change all their properties one at a time? We would be repeating the same steps over and over again. Well there is a very easy way to just make a few mouse clicks to accomplish everything.

First, click on the Copy Object Format Tool in the lower toolbar. That tool button will

remain pushed down and appear as: IV. Now having selected the Copy Object Format Tool, click on the first text string that has the fancy format properties that we want to duplicate. When you click on the first object following the selection of the Copy Object Format Tool, the program will flash a message

Format was copied

that indicates that it has memorized the format properties of that first object.

Now that the Copy Object Format Tool has noted the first string's properties, all you do is click the other three strings one at a time. As you click each string in turn the program will flash another message that confirms the formatting was copied.

Format was pasted

You will also immediately see each string change to the new format. The final result appears as:



When finished using the Copy Object Format Tool, you can click any white space area of the label to turn off that tool and return to the normal Selection Tool. Note how the left

side of the lower toolbar appears. You could also just click directly on the Selection Tool to select it. Except when creating new objects or using the Copy Object Format Tool, 98% of the time the Selection Tool will be the only active tool that you use in the lower toolbar.

The Copy Object Format Tool copies formats from one type of object to any other object type. However, usually the two objects will be of identical types. When the two objects are of different types then only the commonly used properties of the source type will be copied to the destination type. In the above example, all the objects were of type string and thus all the basic format properties of strings got copied. As another example, if you try copying the format of a rectangle to a string, only the basic color of the rectangle will get copied. However, the borderline color and the borderline thickness and the interior color of a rectangle would get mapped to an oval object. Exactly which properties get copied depend on both source and destination object types. Usually these are the basic colors, and in the case of strings, the font name and font pointsize and the italic, and bold and underline characteristics. All objects share the Nonprintable property, but none of the three geometric objects have a rotation angle.

Even though most labels only contain a few template objects, using the Copy Object Format Tool can save you a lot of time and avoids unnecessary repetitive work.

6.12 Duplicating Objects

In addition to copying the format from one object to another, you can also just duplicate all the currently selected objects. Just first select those objects you wish to duplicate and then press the key sequence CTRL+D on your keyboard. This provides a quick and easy way to create similar objects on your label.

6.13 Open a Template

When you choose the open template this will display the following dialog. This shows the template directories.



6.14 Saving and Loading Templates

After you design the content of a label you may wish to save the items on that label in a file. You can either save or load the contents of a label's items by pulling down the File menu item. We refer to a label design as a group of *Template Items*. Each different label design you create can be saved in a separate file for later re-use.



You can create as many Template Item files as you need. When you save a template the program will prompt you for a filename. When you load a template file the program will first erase all the items on the existing label and then it will load all the new template items.

6.15 The Default Template File

There is one label template file that has a special name. That name is MasterItemsTemplate.txt. This special text file automatically gets loaded each time the program is run. If this file does not exist, then the program won't complain that it can't find it. It just presents you with a blank label when this file does not exist.

If you have a special label design that you use more often than any other, then you should consider saving that design in a template file that you name MasterItemsTemplate.txt. Then you will always see that design as the default label when the program first starts.

Just remember that at any time you can overwrite this file with a new design, but if you intend to re-use a design you might also consider saving it under a filename that differs from the default name. The label program only recognizes one default template file, but you can create and use as many other template filenames as you need. Only the file named MasterItemsTemplate.txt is the one that is automatically loaded when the program is run.

Whenever you save or load a template file the program will extend the **File** menu item to show the most recently used files. To re-open one of these files all you have to do is select its name from the bottom of the **File** menu.

6.16 Other Default Files

Under the **Options** menu you can bring up a dialog box where you can name all the main default files that you use.

Befault Files Information	
	Select Another:
Default Label Sheet Specifications: DefaultSheetSpec.txt	Default Sheet
Default Items Template: DefaultItemsTemplate.txt	C Default Items
Default Large Box Sheet Specifications: DefaultLargeBoxSheetSpec.txt	C Box Sheet
Default Large Box Items Template: DefaultLargeBoxItemsTemplate.txt	C Box Items
Default Top Folder Sheet Specifications: DefaultFolderTopSheetSpec.txt	C Top Folder Sheet
Default Top Folder Items Template: DefaultFolderTopItemsTemplate.txt	C Top Folder Items
Default Vertical Folder Sheet Specifications: DefaultFolderVerticalSheetSpec.txt	C Vertical Folder Sheet
Default Vertical Folder Items Template: DefaultFolderVerticalItemsTemplate.txt	C Vertical Folder Items
Default CD/DVD ROM Sheet Specifications: DefaultCDandDVDSheetSpec.txt	C CD/DVD ROM Items
Default CD/DVD ROM Items Template: DefaultCD andDVDItemsTemplate.txt	C CD/DVD ROM Sheet
Load Large Box Default Color Map: DefaultColorMap.txt	C Color Map
Load Top Folder	Select A Different File
Load Vertical Folder	
Load CD/DVD ROM Close Help	

The first two filenames refer to the label sheet specifications and the template items that load automatically when the program starts.

The next eight filenames refer to Large Box, Top Folder, Vertical Folder, and CD-ROM types of labels. Each type has a label sheet specification file and a template items file.

The last filename is for the default Color Map that gets loaded when the program is first run. You can have many different Color Maps, but the program only uses only one Color Map at a time. The dialog box for Color Maps allows you to save and load different Color Maps. The default Color Map filename shown in the above dialog box is the one that loads when the program first runs.

7 Label Sheet Specification

There are 12 parameters that describe a label sheet. When you bring up the Label Sheet Specifications dialog box you should see an example dialog box like the following figure:

📟 Label Sheet Specificat	ions		_ 🗆 ×			
Manufactured Names:	All measurements are in decimal inches accurate to hundredths.	Change th	e Print Order			
Avery 5163	Individual Label Width = 4.000					
Avery 8662 Business Backs Folder Top Folder Vertical	Individual Label Height = 2.000	1	2			
Lange Box	This column Left age Margin - 10.100					
Master Large Box Master Sheet Spec Master Single Wide	First Row Top Page Margin = 0.500	3	4			
Plain 3-Across	space between columns = [0.200					
Portrait 8.5x11 Single Wide Whatever	Space Between Rows = 0.000	·				
	Number of Rows of Labels = 5 🗲	5	6			
Portrait	Number of Columns of Labels = 2					
C Landscape	Sheet Width = 8.500	7	8			
Redraw	Sheet Color Sheet Height = 11.000					
		}{	\{			
Print a Sheet Template	Load Label Sheet Information					
Print Template Label Nur	nbers Save Label Sheet Information	9	10			
		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·			
Ok Help						
D:\RC0\IMAGE2000\ALabel\DELPHI\Avery5163SheetSpec.txt						

This dialog box is normally brought up by clicking the Sheet Information button in the toolbar.

The controls in the upper part of this dialog box are used to describe all the physical aspects of your label sheets.

The ten numerical values you see in the upper-middle of your dialog box may differ from what shows in the above figure, depending on the Manufactured Name that is selected. In the above dialog box we have selected the type of label that is Avery number 5163. This represents a sheet of labels attached to an 8.5×11 inch piece of paper that has Portrait orientation. There are 5 rows of labels on this example sheet arranged in 2 columns.

Whenever you select any type of label sheet all the values will be filled in for you automatically.

The purpose of this topic in this help file is to explain how the ten numerical values seen in the upper-right of the above dialog box relate to the physical layout of the labels on any type of page. Although your label sheet may differ in its layout, by studying this section of this help file you should be able to measure any custom label sheet and then you will know how to fill in all the correct parameters. The ten variables and their descriptions are as follows.

- 1. Individual Label Width. This measures the horizontal distance across each physical label and does not include any space in front of or between labels.
- 2. Individual Label Height. This measures the vertical distance across each physical label and does not include any space on top of or below the label.
- 3. Space Between Columns. This measures the short horizontal distance that separates one column from the next. This measures the distance from the right edge of a label in the previous column to the left edge of the label in the next column. This measurement will be zero when one column butts up against the next column so that there is no real space between columns.
- 4. Space Between Rows. This measures the short vertical distance that separates one row from the next. In many cases this distance is zero because each row is butted up against the next. This value measures the distance from the bottom of a label in the previous row to the top edge of the label in the next row.
- 5. First Column Left Page Margin. This measures the horizontal distance between the physical left vertical side of the label sheet and the left edge of any label in the first column of labels. This could also be described as the left margin for the label sheet.
- 6. First Row Top Page Margin. This measures the vertical distance from the physical top of the label sheet to the top of any label in the first row on the sheet. This could also be described as the top margin for the label sheet.
- 7. Rows Per Page. This is not a measurement, but simply a count of the number of labels going down in each column.
- 8. Columns Per Page. This is not a measurement but simply a count of the number of labels going across in each row.
- 9. Sheet With. This is the width of the sheet in inches.
- 10. Sheet Height. This is the height of the sheet in nches.

After you select and enter Custom label information, or after you make any other changes

you can use the button that appears as Save Label Sheet Information to save the information. At the time you save any label sheet information you will first be prompted to enter the Manufactured Name, and this can be any custom name that you make up. The Manufactured Name does not have to be the name of a true manufactured label, although we tend to use the Avery label number scheme when we know we are working with a particular type of Avery label. Later, you can re-load that same information sheet

Load Label Sheet Information

using the other button that appears as

7.1 The Default Custom Sheet

When this program is first run, it looks for a special file named **DefaultSheetSpec.txt**. If the program finds this file it automatically loads it. If this file is not found then the program just fills in all default values as are shown in the above dialog box.

If you have custom information, or if you always use one of the Avery label sheets shown in the above dialog box, then you should select that label and click the button

Save Label Sheet Information

and name your saved file as DefaultSheetSpec.txt. That way all the values you set in the above dialog box will automatically be loaded for you each time you start the program. By using this special filename you can avoid having to manually re-load your custom label sheet information.

7.2 An Example Label Sheet

Consider the drawing below that represents an arbitrary sheet of labels. This particular example has three columns going across and has ten rows going down each column. Your particular label sheet will probably have a different number of columns or rows and will probably have labels with a different individual size and spacing than what is shown in this example. However, all the elements shown in the figure below can be applied to completely describe any sheet of labels.



If you imagine the white space inside the border of the above figure is a sheet of paper measuring $8\frac{1}{2}$ inches by 11 inches then the following would be the actual measurements for that sample sheet of labels.

Label Width=2.625 inches

```
Label Height=1.00 inches
First Column Left Margin=0.20 inches
First Row Top Margin=0.50 inches
Space Between Columns=0.125 inches
Space Between Rows=0.00 inches
Rows Per Page=10
Columns Per Page=3
Sheet Width=8.5 inches
Sheet Height=11.0 inches
```

Note that all measurements are given to at least the nearest hundredth of an inch. No measurement needs to be more accurate than the nearest thousandth of an inch.

The blue numbers in the upper-left corner of each label order the labels for printing by first going down the rows. The red numbers in the lower-right corner of each label order the labels for printing by first going across the columns.

7.3 The Two Numbering / Printing Schemes

The figure below shows a typical sheet of labels. There are two ways to count or number or print the labels on a sheet like this that we call numbering/printing schemes.



In the above figure the numbers in red in the lower-right corner of each label are formed using a scheme that first prints (counts) going across in each row before going down to the next row.

The numbers in blue in the upper-left corner of each label are formed using the other scheme that first prints (counts) going down each column before going back up to the top of the next column.

These two numbering/print order schemes are important because they are used to direct the program that prints each sheet of labels. These schemes have the names Print Left-Right Across the Columns and Print Top-Bottom Down the Rows. You can select either of these schemes by selecting one of the following two options in the dialog box that appears when you select the menu item under **Options** labeled **Printing Order/Instructions**.



In addition to printing labels in an order that you like to read, knowing the numbering scheme can also save you from wasting labels on partially printed label sheets. Each time you print a batch of labels the last sheet you print will probably contain some unused blank labels. Whenever you start printing a new batch of labels, you can tell the program the starting position of the label on any first partially used label sheet. The program can then skip over the already used label positions on that first sheet and only print on the unused labels. If your print job uses multiple sheets, then the 2nd and remaining sheets up to the last sheet can be assumed to use all the labels on those sheets.

Of course the last sheet in a batch may again be only partially filled with printed labels. But you can then recycle or reload that last sheet and use it as the first sheet in the next batch that you print. If you always print using the same numbering/print order scheme (which most people do) then you can make full use of every label on every sheet.

The three controls in the dialog box that appear together as:

First Page Starting Label				
Row	Column			
1 🜲	1 🜩			
🔽 Auto Update Position				

are used to tell the program the position of the first printed label on the first page in the next batch of label sheets. These two controls also appear in the dialog box that appears when you select the menu item under **Options** labeled **Printing Order/Instructions**. If your first sheet is full of labels then these two numbers should be set to 1 to indicate the first label on the sheet. Otherwise, set these numbers to identify the position of the first label to be printed.

The checkbox with the title **Auto Update Position** is used to let the program count the number of labels used on the last print job and then the program will automatically fill in the **Row** and **Column** numbers for you for the next print job. If this checkbox is unchecked then you should expect to manually fill in the **Row** and **Column** numbers just before each next print job. This checkbox is turned on by default and may be used to save you a little thinking. If you always start printing with a full virgin sheet of labels then you will always use the same **Row** and **Column** numbers as 1 for each print job. In that case you don't need the program to update those numbers for you and you could turn off the checkbox in that case.

7.4 Label Materials

Various label manufacturers have different colors and materials for paper. The following table is from <u>www.onlinelabels.com</u>.

Part #	RGB	Description
OL5275WX		White (Laser and Inkjet)
OL5275WR		White w/Removable (Laser and Inkjet)
OL5275WS		White Gloss (Laser Only)
OL5275WG		White Photo-Gloss (Inkjet Only)
OL5275LP		White Weatherproof (Laser Only)
OL5275WJ		White Weatherproof (Inkjet Only)
OL5275CL		Crystal Clear (Laser Only)
OL5275CK		Crystal Clear (Inkjet Only)
OL5275CJ		Clear Matte (Inkjet Only)
OL5275CX		Clear Matte (Laser Only)
OL5275GF		Gold Foil (Laser Only)
OL5275SF		Silver Foil (Laser Only)
OL5275BK	211, 163, 78	Brown Kraft (Laser and Inkjet)
OL5275GX	138, 224, 163	Pastel Green (Laser and Inkjet)
OL5275BX	183, 228, 225	Pastel Blue (Laser and Inkjet)
OL5275YX	223, 243, 99	Pastel Yellow (Laser and Inkjet)
OL5275PX	229, 151, 148	Pastel Pink (Laser and Inkjet)
OL5275TE	192, 192, 192	True Gray (Laser and Inkjet)
OL5275TB	110, 135, 184	True Blue (Laser and Inkjet)
OL5275TG	52, 166, 81	True Green (Laser and Inkjet)
OL5275TR	224, 0, 0	True Red (Laser and Inkjet)
OL5275TY	251, 254, 0	True Yellow (Laser and Inkjet)
OL5275TC	230, 220, 178	True Cream (Laser and Inkjet)
OL5275FY	221, 254, 0	Fluorescent Yellow (Laser and Inkjet)
OL5275FG	5, 213, 13	Fluorescent Green (Laser and Inkjet)
OL5275FR	240, 100, 38	Fluorescent Red (Laser and Inkjet)
OL5275FP	249, 56, 95	Fluorescent Pink (Laser and Inkjet)
OL5275FO	230, 162, 43	Fluorescent Orange(Laser and Inkjet)
OL5275SP		Waterproof Silver Polyester (Laser Only)

7.5 Printing a Numbered Template

After selecting a pre-made label type, or after entering all the information for a custom sheet of labels, you can print what is called a numbered template sheet. This is just an outline that should be printed on plain paper. It shows the exact dimensions of a sheet of labels and it numbers the labels according the label printing order that you have chosen.

To print a numbered template first load some plain paper in your printer and then press

Print a Sheet Template

the button

8 Automatic Printing

The ALabel program is capable of performing four different kinds of automatic printing. Two of these are related to printing a series of either envelopes or address labels from a text file that contains a simple list of names and addresses. The third kind of automatic printing is more elaborate because it doesn't depend on names/addresses and it can use any kind of a label template. Using the third kind of automatic printing, you can setup pre-designed print schemes to allow automatic printing to occur using data either generated by the RCO database, or, the data can from text files that you create on your own. A fourth kind of automatic printing is used to print Serial Numbers in a barcode format.

8.1 Printing Using Pre-Designed Templates and Control Files

We will first describe the more elaborate type of automatic printing. As a simple example, suppose you want to print a set of labels for some office file folders. Let's assume that a sample label looks like the following:



If you had to produce 50 or more labels like this, it would certainly be better if you could automate the task as opposed to making and printing one label at a time.

In this example, we assume the top of the label contains three text strings. The first is a title, the second is a department name and the third is a date. The fourth item on the label is a barcode number. Both the department name and the barcode item have a special property set that allows these two items to be automatically centered on the label. This property is found in the properties dialog in the form of a radio button for the centering option for the department text and the barcode. We assume the title and the date items will be left justified as shown above. Each of these also has a radio button in the properties dialog for setting the centering option for the title and date strings that says they will use the actual edge distance from the left edge of the label.

Using the **ALabel** program, each automatic print job or design has a special name associated with it. Let's give this print job the special name **OfficeCat**. Our print job names consist of simple phrases written without any spaces or punctuation marks in the name. Once you decide on the special name like **OfficeCat** you will then create 4 special text files that will have the following filenames:

- 1. OfficeCatSheetSpec.txt
- 2. OfficeCatItemsTemplate.txt
- 3. OfficeCatMappingIDs.txt
- 4. OfficeCatData.txt

We will next illustrate what you need to do to create these four files. After that, you can edit the 4th file that will contain the actual data you will print.

To create the above example you would first click on the toolbar button to clear the current label and start with a new blank label. Next, click the button sheet Information and then use the following dialog box to define the specific type of label sheet you want.

📟 Label Sheet Specificat	ions		- 🗆 ×			
Manufactured Names:	All measurements are in decimal inches accurate to hundredths.	Change the	e Print Order			
Avery 5163 Avery 6466	Individual Label Width = 4.000					
Avery 8662 Business Backs Folder Top	Individual Label Height = 1.333	1	2			
Landscape 11x8.5	First Column Left Page Margin = 0.150					
Master Large Box Master Sheet Spec Master Single Wide	First Row Top Page Margin = 0.850	3	4			
Office Z Plain 3-Across Portrait 8.5x11 Single Wide	Space Between Columns = 0.200 Space Between Rows = 0.000	5	6			
Whatever	Number of Rows of Labels = 7	7				
Label Sheet Orientation:		(ð			
Portrait C Landscape	Number of Columns of Labels = 2	q	10			
	Sheet Width = 8.500	, , , , , , , , , , , , , , , , , , ,	10			
Redraw	Sheet Color Sheet Height = 11.000	11	12			
Print a Sheet Templat	Load Label Sheet Information	13	14			
	Save Label Sheet Information	<	< <i>i</i>			
	Help					
D:\RC0\IMAGE2000\ALabel\DELPHI\Avery8662SheetSpec.txt						

We have selected the Avery 8662 label sheet for this example, but you can select any type of label sheet, including a Custom type in which you type in all the dimensions and sheet statistics that are represented by the 10 sheet values in the middle of the above dialog box. If you choose a custom type you must also specify the sheet orientation as being Portrait or Landscape. Of course when you choose a pre-defined type of sheet then you won't need to change any of the 10 sheet values nor will you need to change the sheet orientation. Just click Ok to close the above dialog box. You don't need to save anything yet.

Having the sheet set with the proper parameters, the next task is to design the items that go on the label. This will require you to learn how to use the editing features of the program. You need to create three text strings and one barcode and position these elements on your label where you want them. We will assume the label appears as:


If you now select the menu item

View	Help		
🗸 Inc	✓ Inches		
Cer	Centimeters		
Sho	Show the Snap-To Grid		
Hide the Alignment Palette			
Sho	ow the Index Numbers		

you will see a temporary display of what we call the index numbers for the items on the template design. These index numbers will only show temporarily, and later we will explain how these numbers are used to automatically identify items in the template.

The <mark>0</mark> itle	The De <mark>1</mark> . Name	04/022004		
123456				

Then select the File menu item



This will bring up a dialog box like the following:

Show the Index Numbers Delete The Selected Row			
		Edit the Field Names:	
Index #	Object Type	Field Name	
0	Text String	Field1	
1	Text String	Field2	1
2	Text String	Field3	1
3	Barcode (1D)	Field4	1

In this dialog box we can read the index numbers in the leftmost column and we can read the corresponding object type for each index in the second columns. Reading the index numbers is important to help determine which of the three Text Strings corresponds to the Folder Title, and the Department Name and the Folder Date.

Now we will enter the Automatic Print KEYNAME value as **OfficeCat** and we will edit the Field Names that are in the 3rd column in the above table. We can give the fields more meaningful names. You need to fill out the information in this dialog box so that it appears as follows:

📟 Se	🖩 Setup An Automatic Print Scheme 📃 🗖 🔁					
	Automatic Print KEYNAME: OfficeCat					
	Show the Index Numbers Delete The Selected Row					
	Edit the Field Names:					
	Index #	Object Type	Field Name			
	0	Text String	Folder Title			
	1	Text String	Department Name			
	2	Text String Folder Date				
	3 Barcode (1D) Folder Barcode					
	Save the Automatic Print Scheme Cancel Help					

Thus you only enter the Automatic Print KEYNAME and you can change the field names to ones that describe what they represent on the label. Only those fields that have dynamic data that will change from label to label need to be used. You can place the cursor in any field name and press the button to Delete The Selected Row to remove any template item from the above list that won't be getting its data from an outside source. So if you have geometric objects or other strings that will remain constant on all labels then you should remove those template items from the above list. After all the dynamic text fields have been given meaningful names and you are ready to save everything, you can press the button to **Save the Automatic Print Scheme**. The program will automatically create four files for you. These are the files

- 1. OfficeCatSheetSpec.txt
- 2. OfficeCatItemsTemplate.txt
- 3. OfficeCatMappingIDs.txt
- 4. OfficeCatData.txt

The contents of the **OfficeCatData.txt** file are for you to edit. For this example the contents of this file will first appear as:

```
OfficeCat
Folder Title: YourDataItem1
Department Name: YourDataItem2
Folder Date: YourDataItem3
Folder Barcode: YourDataItem4
Next Label
Folder Title: YourDataItem1
Department Name: YourDataItem2
Folder Date: YourDataItem3
Folder Barcode: YourDataItem4
Next Label
Folder Title: YourDataItem1
Department Name: YourDataItem2
Folder Date: YourDataItem3
Folder Barcode: YourDataItem4
Next Label
```

You should note that the very first line in the data file is the Keyname **OfficeCat** of this special print job. Each special automatic print job should be given its own unique Keyname. That Keyname must be the first line in any data file.

You can open this data file that has three sample labels. The line **Next Label** is used to separate one label from the next. You should then edit all the **YourDataItem** strings to make the real data for your custom print job. We put in three sample labels in the initial **OfficeCatData.txt** file to remind you of the file format, but you would obviously use the features of your word processor to copy and paste as many labels as your data file requires. With just a little bit of editing work you can quickly create large data files. The last line in your data file should also be **Next** Label.

If you were to create a text file for 5 labels as opposed to 50, those five labels could appear in the **OfficeCatData.txt** file as follows.

```
OfficeCat
Folder Title: Billing Information
Department Name: Technical Programmers
Folder Date: 04/02/2004
Folder Barcode: 00001
Next Label
Folder Title: Accounting Information
Department Name: Wood Workers
Folder Date: 04/02/2004
Folder Barcode: 00002
Next Label
Folder Title: Personal Information
Department Name: Metal Workers
Folder Date: 04/02/2004
Folder Barcode: 00003
Next Label
Folder Title: Shipping Information
Department Name: Shipping
Folder Date: 04/02/2004
Folder Barcode: 00004
Next Label
Folder Title: Administrators
Department Name: Personnel
Folder Date: 04/02/2004
Folder Barcode: 00005
Next Label
```

This text data file contains all the data to be printed. Note that the actual data follows the and space characters on each line. Do NOT word wrap the data lines in your data text file. This data text file does not have to have a special name because the first line in the file contains the keyname **OfficeCat**. The advantage in using field name titles like those shown above is that you could actually type the data by hand because you know where the title is, you know where the department name is, you know where the date is, and you know where the barcode is. Thus you should use field names that are meaningful to your particular label design. After editing the file **OfficeCatData.txt** you would open this file as a data file and print its contents.



and select **OfficeCatData.txt** as the file to open.

When you open this data file you should see the first label appear as:

Billing Information	Technical Programmers	04/02/2004			

When you see this you know the program correctly read the other three design files. Anytime you open a data file you should see the information for the first label in that data file appear on the screen.

To continue, you would finally select the menu item



The program will NOT prompt you for a filename to open because it always assumes you first opened some data file. When you initiate printing you will then see a dialog like

Р	rint			? 🔀
	Printer			
	Name:	Panasonic KX-P7305 PCL6	•	Properties
	Status:	Ready		
	Type:	Panasonic KX-P/305 PCL6		
	Where:	LPT1:		
	Comment:			
	Print range		Copies	
	 All 		Number of cop	pies: 1 🗧
	C Pages	from: to:		
	C Select	ion	11 22	3 Collate
			OK	Cancel

that allows you to select the printer you are going to use for this print job.

Next, you should see the dialog box

B Printing Instructions	
Label Printing Order: Print Left-Right Across the Columns Print Top-Bottom Down the Rows Number of Labels To Print:	First Page Starting Label Row Column 1 1 1 Auto Update Position
Ok Cancel	Help

that allows you to set the starting print position on the first label sheet and to set the printing order.

After clicking OK, the program will automatically start printing the last data file you just opened. Internally program performs the following sequence of steps.

- 1. The program will read the first line in the data file **OfficeCatData.txt** to get the Keyname. In this case the Keyname is **OfficeCat**.
- 2. The program will load the sheet specification file named **OfficeCatSheetSpec.txt**.
- 3. The program will load the items template file named **OfficeCatItemsTemplate.txt**.
- 4. The program will load and remember the lines in the file named **OfficeCatMappingIDs.txt**.
- 5. The program will begin a loop in which it reads the remaining lines from the **OfficeCatData.txt** data file one line at a time and it will load that information into the current label, based on the field names and the mapping of the index numbers.
- 6. The program reads one line from the data file at a time until it reads the line **Next Label**. Then it prints the current label.
- 7. The program continues looping back to step 5 until all the data has been read and all the labels are processed. The program will keep track of label sheets and it will load each new label sheet as required. When it reads the last line in the file, Next Label, it will then print the last label and stop.

The last thing to understand about this automatic print scheme is a little technical. The file named **OfficeCatMappingIDs.txt** contains the following lines:

```
Folder Title: [0]
Department Name: [1]
Folder Date: [2]
Folder Barcode: [3]
```

The order of these lines is not important, but the numbers between the square brackets are critical. So is the space between the **:** character and the left square bracket. In other words, these four lines can appear in any order in the file **OfficeCatMappingIDs.txt**.

You should recognize the four field names. This mapping file is required to use the same field names that are in the data file. Folder Title: and Department Name: and Folder Date: and Folder Barcode:. The numbers in square brackets following these field names must match the corresponding item indexes found in the OfficeCatItemsTemplate.txt file.

The file **OfficeCatMappingIDs.txt** acts as a print job control file because it specifies where the actual data information gets placed on the label. All placements of text strings depend on the index numbers that are in the items template design file. This is why you should create the items template file before you create the corresponding **MappingIDs** file. The purpose of any **MappingIDs** file is to associate name titles with items template index numbers.

The two files named **OfficeCatMappingIDs.txt** and **OfficeCatData.txt** can be manually edited as text files separate from this program. Thus after creating an automatic print scheme you could alter the field names or the index numbers if your items template design also changes. The main requirements for the automatic print scheme files are that the index numbers in the **MappingIDs.txt** file correspond to the numbers of items used in the **ItemsTemplate.txt** file and the field names used in both the **MappingIDs.txt** file and the **Data.txt** file must match.

8.2 Automatic Printing of Names and Addresses

Normally, you will use the above descriptions to create custom automatic print jobs. However, there are three other types of automatic printing that can be considered noncustom that is built into the ALabel program. Two of these other print jobs are related to automatically printing either envelopes or address labels.

To setup automatic printing of either envelopes or address labels, all you need do is create a data text file in which each label consists of 3 or 4 or 5 address lines. Each next label is separated from the previous one by exactly one blank line. There is no **Next**

Label line in a names and addresses data file. As an example, you could use the Windows Notepad editor to create a text file like the following:

8.2.1.1 John Doe

123 Main Street New York, NY 12345

Mary Doe Apt. #12B 789 Lincoln Blvd. Los Angeles, CA 90025

The President Attn: General George Washington The White House 1600 Pennsylvania Avenue Washington, DC 00000

```
Joe Johnson
CEO
The JJ Company
54321 Elm Street
Salt Lake City, UT 98765
```

The above example file has only 4 names. Just remember to keep the names/addresses separated by one blank line. Normally, each address will consist of 3 or 4 or 5 lines of information.

To print envelopes using the above list you would normally select the menu item



to bring up the following Envelope Printing dialog box.

Envelope Printing		
From Information: From Information # Creal Addr Save From Information Paste from Clipboard >> (te a From ess Label Name: Address Line 1: Address Line 2: City, State ZIP Code:	Changing either information number automatically loads the corresponding address.
Print a Series Using a Text Type of Envelope: Standard Envelope Large Envelope	Send To Information: Name: To Information # 1 1 To Attention: Save To Information Address Line 1: Paste from Clipboard >> Address Line 2: City, State ZIP Code: Create a To Address Label ✓ Apple Show the Envelope Print the Envelope Cancel	y POSTNET Barcode

Next, type in the From Information in the top four edit boxes in the above dialog box. We assume the From Information is the same on all envelopes. If your return address is already printed on your envelopes then you could leave the From Information blank.

Then you would click the button to open a text file. After selecting your text data file you will choose the printer and then the printing will begin. Address printing like this assumes you are printing on either standard or large size envelopes; the choice is made in the above dialog box. The Send To Information is what gets read from your text file and so you don't need to enter anything in the above dialog box in the Send To fields.

To print the above names and addresses text file, not on envelopes, but on some kind of

an address label sheet, you would normally first click on the Sheet Information button in the toolbar to first select the desired sheet specification. Then you would select the menu item



and this will bring up the following dialog box for printing address labels.

📟 Edit the To Addr	ess Information
Company Name: Attention:	To Information #
Address Line 1:	Label Type Selection:
Address Line 2:	
City, State ZIP Code:	Apply POSTNET Barcode
	Company Name Attention Address Line 1 Address Line 2 City, ST 12345
	Print a Series Using a Text File Create The Label Cancel Help

If you know you want to use the standard Avery 8662 type of label, you can select that radio button in the above dialog box. Otherwise the program will use the currently loaded label sheet. You don't type in any address information in this dialog box because all of the addressing data is going to come from a text file. The whole point of opening this dialog box is just to get to the special button described next.

Then you would click on the button Print a Series Using a Text File and you will be prompted to open the text file that contains your list of names and addresses. Then you will be asked to select the starting print position and specify the print order.

B Printing Instructions	
Label Printing Order: Print Left-Right Across the Columns Print Top-Bottom Down the Rows Number of Labels To Print:	First Page Starting Label Row Column 1 1 1 V Auto Update Position
Ok	Help

Finally, you will be given a chance to select the printer you wish to use for this print job. The addressing dialog box will automatically close and the printing process will begin after you select the printer.

8.3 Automatic Printing of Serial Numbers

The fourth and last kind of automatic printing is used to print a series of Serial Numbers in a barcode format on a sheet of labels. To initiate this kind of a print job, first select the menu item



The program should automatically load both a sheet specification and an items template that appear as



Note that this is a very simple label that only contains a single barcode item. The program would have automatically loaded two files named

DefaultSerialNumberItemsTemplate.txt and

DefaultSerialNumberSheetSpec.txt. You are asked to confirm that you wish to use this pattern for your Serial Number barcodes. Click Yes to continue and you should then see the following dialog box.

I Create Serial Numbers for 1D Barcode Labels				
The Text Prefix: A	The Text Suffix:			
Text Prefix Option: Apply the Text Prefix to All Labels Do Not Apply the Text Prefix	Text Suffix Option: Apply the Text Suffix to All Labels Do Not Apply the Text Suffix			
The Starting Number:	The Ending Number: 999 Number String Length:			
Fill to the Number Length Using Preceding 0's				
With all options turned on a typical barcode label text might look like: A000123Z				
where the serial number length is 6 digits, filled with preceding zeros.				
Print				

The main entries here are the Starting Number and the Ending Number. However, you have the option of including either, or neither, or both a text prefix string and a text suffix string. These two strings are considered constants that appear before and after each serial number that is generated.

In addition to adding fixed text to a serial number, you also have the option of filling out all generated serial numbers to have a fixed length that you specify. Any and all serial numbers that use fewer digits than the Number String Length that you specify can have preceding zeros attached so that all serial number numbers have the same length. Note that this length has nothing to do with any text prefix or suffix that may get added to the serial number string. Prefixes and suffixes are added after the 0-padding takes place.

When you click the print button, you will be prompted for the starting label position and then the program automatically generate and print all serial numbers.

This automatic print job assumes you have three files with the names:

DefaultSerialNumberItemsTemplate.txt DefaultSerialNumberSheetSpec.txt DefaultSerialNumberMappingIDs.txt The above three files should have been installed with the program.

The program will automatically create the 4th required data file that will be named **DefaultSerialNumberData.txt**. You normally won't see or do anything with this file. This file gets over-written with the new serial number data each time you print a barcode series.

9 Printing Labels

You initiate printing by selecting one of seven menu items under File.



You can either:

- 1. Print Individual Labels
- 2. Print Full Sheets of Labels
- 3. Print a Set of Notebook Tabs
- 4. Print an Envelope
- 5. Print a Data File
- 6. Print a Range of Serial Number Labels
- 7. Print Scanner Control Sheets

Probably most of time you will use the ALABEL program to just print an individual label, but even in this case you can print multiple labels that may fill one or more full sheets. You would only use the Full Sheets menu item when you know you want to print a full sheet with the same label. Note that you can also just press CTRL+P or CTRL+S

to initiate printing an individual label or a full sheet. Printing a data file requires using an associated database.

B Printing Instructions	
Label Printing Order: Print Left-Right Across the Columns Print Top-Bottom Down the Rows Number of Labels To Print:	First Page Starting Label Row Column 1 1 1 Auto Update Position
Ok	Help

When you print Individual Labels you should first see the following dialog box

First select the Label Printing Order. You can only choose between printing across first, or printing down first. In many cases you may not particularly care whether you print across the sheet first, or whether you print down the rows first. This option can be used to help determine what labels will be used first on your label sheet.

Next, you should identify the row and column position of the first label that you want to use. If you choose to print many labels at once, you might end up using multiple label sheets. For the second and successive sheets, if any, the program will normally start with row 1 and column 1. However, by allowing you to precisely specify the starting position on the first page, you can make good use of a partially used label sheet.

This feature saves you from wasting labels on partially printed label sheets. Each time you print a batch of labels the last sheet you print will probably contain some unused blank labels. Whenever you start printing a new batch of labels, you can tell the program the starting position of the label on any first partially used label sheet. The program can then skip over the already used label positions on that first sheet and only print on the unused labels. If your print job uses multiple sheets, then the 2nd and remaining sheets up to the last sheet can be assumed to use all the labels on those sheets.

Of course the last sheet in a batch may again be only partially filled with printed labels. But you can then recycle or reload that last sheet and use it as the first sheet in the next batch that you print. If you always print using the same print order scheme (which most people do) then you can make full use of every label on every sheet.

The last option is to tell how many labels to print. Although you may only print one label most of the time, you can print up to 500 or more labels all at once. All labels will be same.

If you click the Cancel button in the above dialog then printing will be cancelled. If you click the OK button in the above dialog then you should see yet another dialog box, somewhat like the following, just before you actually start printing.

Print				? 🛛
Printer —				
Name:	HP LaserJet III		-	Properties
Status: Type: Where: Comment:	Ready HP LaserJet III LPT1:			
Print range			Copies	
⊙ All			Number of co	pies: 1 📫
C Pages C Selecti	from:	to:	123 1	23 Collate
			OK	Cancel

This dialog box allows you to select a particular printer and to set the properties of that printer before you print. If you push the Cancel button in this dialog box then all printing will be cancelled. You select the OK button to actually begin printing. You do NOT use the Number of Copies in this dialog to print labels. The Number of Copies should always be 1.

If you checked the item Auto Update Position in the first dialog box above, then the ALABEL program will automatically update the Row and Column numbers in the first dialog box above after you print any number of labels. These values are incremented in such a manner that if you reload the last partially printed label sheet back into your printer you don't have to continually update the starting print position. This feature works even when you print across multiple sheets. Thus the only time you need to actually set the Row and Column numbers is when you print the first time after you first run and initialize the ALABEL program.

If you choose to Print Full Sheets of Labels, the program will first prompt you with a dialog box like the following:



This dialog box gives you the opportunity to tell how many full sheets you wish to print. All printed sheets will look the same.

9.1 Printing a Data File

You must first open a data file before you can print it. Use the first **File** menu item to open a data file. The data file would have been saved by another database program, such as the RCO Image 2000 Record Management System. See also the Help menu item Automatic Printing... for details about how to setup the text files that define and control an automatic print job. All automatic print jobs must be setup with three particular design files and one data file before you can print. In most cases the design files will have been created by RCO for you according to the specifications you provided to RCO.

When you open a data file all you should see is the first label contained in that file. If the format that has automatically been chosen is what you want then you select the menu item under **File** labeled **Print a Data File**. The program automatically remembers the last data file you opened and it uses that file for printing. You will be prompted with two dialog boxes before the actual printing begins; one selects the printer and the other defines the printing order. Those two dialogs are the same as shown above when you print individual label items. After the program has processed the entire data file you will see the last record left on the screen. The act of printing a data file causes a switch from the first to the last records in the file.

Note that data files are only one of three types:

- 1. Box
- 2. Top Folder
- 3. Vertical Folder

Under the **Options** menu you will find the **Default Files** dialog box in which you can name the sheet specifications file and the items template file for each of these three kinds of automatic labels.

9.2 Printing a User Directory

In performing physical records management where you are checking out physical records (boxes, folders and documents) and you have a mobile scanner and don't have access to a computer you need a way to scan the user id of who you are delivering the records. The

following figure shows the user directory with department number, department name, last name, first name and userid.

10500	ATTORNEY	BELL	LYNETTE	512
10500	ATTORNEY	DONNELLY	NANCY	513
10500	ATTORNEY	HEATH	SUSAN	
10500	ATTORNEY	HERRING	RICHARD	
10500	ATTORNEY	INFANTE	RAMON	

First Generate a Custom Report of all the users

Log in to the admin interface To create a new user directory you will create a userdirectory.csv report. Check only the People check box in Groups Check only the User in the Group Items

Include (Groups:							
□ Electronic □ Organization ☑ People □ Physical Include Group Items:								
Include (Group Items:							
🗌 All	🗖 🕼 Functional Group	🗖 😈Role	🔽 🕵 User	🔲 🛣 User Group				

Uncheck summary report Pick export detail report to: userdirectory.csv Pick result type: csv Pick unlimited

🔽 Include Detail Report 🔿 Open first	
🔲 Include Summary Report 🔿 Open first	
Maximum Number of Detail Rows Returned: unlimited 💌	
O Display Detail Report to Screen	
 Export Detail Report to Electronic File Result Record 	
Result Record Name: UserDirectory.csv	
Result File Type: 🔽	

For the columns pick Department Number, Record Id*, Department Name, Last Name, First Name

Sort by Department Number then Last Name Group by Department Number then Last Name Click the submit button to run the report.

Report Column Definition	5	🔽 <mark>rows</mark>	
Column Data Source		Column Title	Summary Operation
Department Number	▼	Department Number	•
Record Id*	•	Record Id*	•
Current Department	•	Current Department	•
LastName	•	LastName	•
First Name	•	First Name	•

Sorting Definition 2 🔽 ro	ws
Detail Sort Order	
(optional)	
Current Department 💽	
Last Name 🗾	

Grouping Fields (optional)	
Current Department	•
	•

Copy this file from the results groups in the directory to c:\Program Files\Alabel. Click on the file in the directory. Click the history tab Highlight the file by clicking the 1 under version title

Click the copy button

	\$	Coding Conte	nt Search	Retention	Security	Dialog	History			
Box Number 📃	-	Checked Out	Version	File Size	Mod	ified Date	e	Modifie	d By 🛛 🤇	Checkout By
🧐 NM State Records			1	64 KB	2006-01-	04 09:00	:11.677			
🗄 🧐 Chart of Accounts										
🕀 💏 Report										
UserDirectory.csv										
E Barch										
⊡ @ G Update										
I⊞										
SRCA										
Public										
E → Public										
⊕… <u>u</u> RoleManager		View D)elete	Checkin	Checkout	Cop	y (Cancel	Help	
⊨ 2005										

You will see the following dialog.

You might want to highlight the file and then click the Save As button to direct where you want the file stored.

Source	Destination	🛛 🖬 🛛 Save As
IMG000000056_1.csv	c:\temp\UserDirectory.csv	Save All As
,	Submit Help	

Generate user directory with the Alabel program

Start the alabel program from the windows desktop or the run command Pick File menu Convert from CSV to a Data File

Pick the keyname userdirectory

Pick the csv userdirectory.csb you created above

For item index # write out 0, 4, 1, 2, 3 (0 goes in line 1, 4 goes in line 2 and so on) Click the Create the Data File button

🚟 Convert From	n CS¥ to a Data I	ile			
The Keyname:	UserDirectory			•	
The Course File	Choose the	CSV Sour	ce File		
Map CSV Field (Columns to Index N	lumbers:	serbirector	9.059	
Data Column #	Item Index #	-		0.1.0	Francisco - Danta
1	0		🛛 🗹 🖂 Fie	emove Quotes Surround and Strings in the CSV S	ting Data ource File
2	4				00100110
3	1				
4	2				
5	3			Clear the Index Numb	bers
6					
7					
8					
9					
10		-			
	Create the Data Fil	• _	Cancel	Help	

Pick File menu Print a data file from a list to print out the user directory.

Note that you can print to a PDF file to first check your work prior to running the actual print job.

10 Tutorial

This is a tutorial help file for users who are new to the program named **ALABEL**. The program **ALABEL** is a simple program for printing labels on sheets of labels. This tutorial is intended to help new users quickly learn how to use the program to make and save and load and print labels.

This tutorial is in two parts. In the first part we will make a sample label for a folder. In the second part we will make a sample label for a box.

When the **ALABEL** program is first started you may see a screen similar to the following.



What shows in the above screen image is a white label that contains 10 items that represent the eight kinds of objects you can place on a label. There are two horizontal toolbars just below the main menu and below the two horizontal toolbars is a yellow horizontal ruler. The number in the bottom toolbar that is off to the far right indicates the number of currently active objects that are on the current label. $\boxed{10}$ 10. This is the number 10 because there are 10 objects on the above label.

You can also see two yellow rulers, one horizontal and one vertical, that are used to help you size and position elements on a label. The upper-left corner where the two rulers intersect shows the current ruler units

in

The default units are inches, but you can click this area and it will then change to a red

background for centimeters. Both rulers would then be re-drawn in centimeters. You can change the current ruler units at any time to either inches or centimeters by simply clicking on this aqua blue or red area.

Near the top-right of the label is a Barcode object that has the text **Barcode** associated with it. There are two objects that represent a rectangle, and an oval, and there is a line object. The rectangle has a filled-in color that is an aqua blue and the oval has a filled-in color that is green. Near those two objects is a line that is drawn at an angle and is colored black. The rectangle and the line and the oval are what we call geometric objects.

The Lincoln penny, the dollar bill, and the stamp are all examples of what we call Picture Images. Pictures come from disk files that can have either of two file types. Pictures can be what are called bitmap files or JPG files. For example, you might use a company logo in the form of a bitmap, or you might have a picture of an object that is placed inside a box for storage. One special point to note about Picture Images is that you should try to use only 24-bit color Windows bitmaps. These will be files with a .BMP file extension.

You can also use JPEG images but only those that contain a bitmap equivalent 24-bit color image will work. JPEG images must end with a .JPG file extension. Actual Windows *.BMP files and *.JPG files are the only kinds of images that you can rotate at 0 or 90 or 180 or 270 degrees counter-clockwise. You can still load and use any other kind of a Windows *.BMP image file or a JPEG without any rotation, but you can only rotate 24-bit color bitmaps at 90 or 180 or 270 degrees. If you try using a JPG file whose colors don't look correct, just convert the file to a true 24-bit color BMP file and then it should work.

The Rotated Block Text is a special kind of object that combines a painted rectangle background with text that has been rotated. This particular example shows blue text over a pale yellow background. The text has been rotated 90 degrees counterclockwise. In general, rotated block text can be rotated at 0, or 90, or 180, or 270 degrees counterclockwise. The background color can be specified in several ways, and it can even be the same white color as most labels. In that case the text won't appear to have a background around it. In many cases you can think of Rotated Block Text as text with special properties for either color or automatic positioning and alignment. It is very easy to make Rotated Block Text items always appear centered with respect to other objects or with respect to the entire label. The text in the block can also be word wrapped automatically and can be given any combination of horizontal left, center and right or vertical top center or bottom alignment.

The lower-left of the above label contains an object that is called 2-dimensional barcode. Unlike normal 1-dimensional barcode, a 2-D barcode object always appears to consist of little jagged blocks in its middle and it has tall straight vertical bars of different thickness on its left and right sides.

The final object near the upper-left of the label is just a string of characters. We call this object a Text String and in the above figure the related text just shows "Regular Text String". Regular text strings are not as sophisticated as Rotated Block Text objects, but they have their uses. In general, we usually prefer using Rotated Block Text objects as opposed to regular text strings. This is especially true when the text on your label is automatically generated from a database because in this case the length of text strings dynamically changes and in some cases this can affect how that text is aligned with other objects or how it aligns on the label. For now, just remember that Rotated Block Text has many special properties that make it more useful than regular text strings. Regular text strings can be rotated at 0 or 90 or 180 or 270 degrees just like barcodes and rotated block text.

10.1 Creating a Folder Label

To begin the design of a new sample folder label, first click the leftmost button in the upper toolbar. This button is used to clear all the items on the current label and to make an empty blank label.

When you click this button, you will be prompted by a message like the following

Confirm	n 🔀
2	Creating a new label will overwrite any editing changes you have made.
	Do you wish to create new blank label?
	<u>Y</u> es <u>N</u> o

Click the **Yes** button and you should be staring at a blank label. The blue lines that remain on the label are called gridlines that are used to align objects on the label. These gridlines won't actually print when you print a label. They are only used as temporary guides to help you position objects when you make a label design.

	mage	e 20	00	M	aste	er S	hee	t Sp	bec	: 5	x 2																			-
File	Edit	Op	tions	Vie	ew	Help	þ																							
D	2	H	9	Ж	Ē	Ê	5) (ы	175	\$	Ī	imes	s Ne	wRo	omar		-	10	-	I	в.	τ	Ц	Pr	oper	ties		Ф	
\square	1		 I 		\circ	Т		5217 8397			•	Sł	neet	Infor	mati	on		In	activ	/e)	0						
in		0							1					1			2								3					4
n																														
Ĭ		$\left(\right)$																												
_																														
-			<u>.</u>																									 	 	
-			÷																											
			ļ																									 	 	
'			+																										 	
			ļ																									 	 	
-																												 	 	
-			†																											
]																											
2		1	<u>.</u>																											 /

When no object is currently selected some of the buttons and items in the top toolbar will be inactive and grayed out. You will see the number 0 at the far right of the lower toolbar.



This number changes as you add and delete objects from the label.

The first step in creating a new label is to delete all the objects on any existing label. The second step is to select the particular size and kind of the background label. We refer this as selecting a Sheet Specification. You can click the Sheet Information button in the lower toolbar.

Sheet Information

You should then see a dialog box like the following.

📟 Label Sheet Specificat	ions		_ 🗆 ×	
Manufactured Names: Avery 5160	All measurements are in decimal inches accurate to hundredths.	Change the	e Print Order	
Avery 5163 Avery 6466	Individual Label Width = 4.000			
Avery 8662 Business Backs Folder Top	Individual Label Height = 2.000		2	
Folder Vertical Landscape 11x8.5 Large Box	First Column Left Page Margin = 0.150		2	
Master Large Box Master Sheet Spec Master Single Wide	First Row Top Page Margin = 0.500			
Office Z Plain 3-Across	Space Between Columns = 0.200	3	4	
Single Wide Whatever	Space Between Rows = 0.000			
Label Sheet Orientation:	Number of Rows of Labels = 5 🚖	5	6	
Portrait	Number of Columns of Labels = 2	·	\	
Landscape	Sheet Width = 8.500	7	8	
Redraw	Sheet Color Sheet Height = 11.000			
Print a Sheet Template	Load Label Sheet Information		10	
✓ Print Template Label Nur	nbers Save Label Sheet Information	3	10	
Ok	Help	·	·*	
D:\RC0\IMAGE2000\ALabel\E	ELPHI\MasterSheetSpec.txt			

This dialog box is used to define the details of any label sheet that contains any set of labels. For our first example we are going to choose the **Manufactured Name** that is **Avery 5160**. Click on the first entry in the above list box. and note how the sample sheet gets redrawn as:

1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	21
22	23	24
25	26	27
28	29	30

The above sheet numbering scheme shows the default order in which individual labels will get printed. In the above figure the numbers first run left-to-right across a row on the sheet before they go down the sheet. However, if you prefer to first print going down the columns then this numbering scheme can be changed to make a different printing order. You can select either row or column print order at the time you submit a print job. For now, just click the **Ok** button.

You should then see a single blank label that has the size and proportions that correspond to the selected label sheet. The program only shows one typical individual label and in fact this is the reason the program is named ALABEL.



We are going to create a label that will be attached to a file folder. Our label is only going to contain three items. To place the first item on the label, click the Oval Tool

button in the lower toolbar that appears as \bigcirc . This button is used to create an oval object. After you click it, the Oval Tool button appears depressed to indicate you have

selected the oval drawing tool, but no oval object gets created until you left click the mouse somewhere on the label. So left click your mouse anywhere near the upper-left corner in the label.

You should now see an oval object placed on the label. The size and aspect ratio are both chosen at random, but you should see something like the following. The little black handlebars indicate the oval object is selected. You may also note that the Oval Tool button has automatically been turned off, and the Select Tool button is now turned on and

appears depressed \square at the left of the lower toolbar. $\square \square \square \square \square \square$. This is normal as most of the time the Select Tool will be the active tool. The remaining tools on the lower tool bar are usually only temporarily selected, and most get automatically deselected as you perform normal operations.



When any object is selected, you will see two extra yellow areas next to the rulers that shadow the current dimensions and position of that object. In the above figure the ruler indicators show the object is between ½ to ¾ of an inch on the horizontal ruler and is near ¼ of an inch on the vertical ruler. The width of the horizontal ruler indicator matches the current width of the object while the height of the vertical ruler indicator matches the current height of the object. So by reading these indicators you know the starting and ending positions of the object on the label.

Right-click the middle of the oval object with your mouse and you should see a little popup menu appear.

Properties
Bring To Front Send To Back
Delete Selected Object

Choose the **Properties** menu item and you should see a dialog box like the following:

📟 Oval Properties		
Line/Edge Thickness Pixels: 2		
L	(All Units are in Inches)	
Distance From L	abel Left Edge: 0.458	
Distance F	From Label Top: 0.113	
W	idth of the Oval: 0.446	
He	ight of the Oval: 0.255	
F	Fill With Color Fill Color	
🔲 Non-Prin	itable 🦳 Make a True Circle	
Cancel Help		
	Fill Color	

Click the button in this dialog that appears as and you should bring up another dialog box for selecting a color.

Color	? 🔀
Basic colors:	
Custom colors:	Hue: 40 Red: 255 Sat: 240 Green: 255
Define Custom Colors >> OK Cancel	Color/Solid Lum: 120 Blue: 0 Add to Custom Colors

Choose the color yellow near the upper-left corner in this dialog box and then click the **Ok** button.

When you see the next dialog box, turn on the checkbox that says **Fill With Color**. You should then see the following.

📟 Oval Properties	
Line/Edge Thickness Pixels: 2	
	(All Units are in Inches)
Distance From	Label Left Edge: 0.458
Distance	From Label Top: 0.113
~	/idth of the Oval: 0.446
He	eight of the Oval: 0.255
v	Fill With Color Fill Color
🗔 Non-Pri	ntable 🔚 Make a True Circle
Ok	Cancel Help

Click the **Ok** button and the oval on the label should now appear with a filled-in color that is yellow.



The little black handle bars not only indicate this object is currently selected, they are also used to resize and reshape a geometric object. Use your mouse and click on the lower-right black handle bar on the oval and drag that handle bar so that the oval shape becomes more circular. You don't have to make a perfect circle, just eye ball it so it looks close to a circle. Then let up on the mouse.



Finally, click the middle of this object with your left mouse button, but continue to hold the left mouse button down. You should then see the cursor changes to 4 arrows that indicate you may drag this object in any direction, anywhere across the label.



Drag the oval until it is near the upper-left corner of the label and then let go of the mouse. Congratulations! You have created your first label item, you have edited its properties and changed its color and positioned it on the label.



Next we are going to create and edit a 1-D BarCode object. Click on the 1D Barcode Tool in the lower toolbar. In this tool will change to appear depressed which means the 1D Barcode Tool is temporarily selected Image. Now left click once to the right of the oval and you should see a new 1D barcode object automatically gets created on the label. You should see something like the following where the initial placement of the upper left corner of the new barcode object is where you clicked the mouse when the 1D Barcode Tool was selected.



The initial text of the 1D barcode shows the number 123456. We are going to change this. Right-click in the middle of the barcode object and when the popup menu appears select the **Properties** menu item to bring up the following dialog box. You could also just

click the **Properties** button that appears in the upper toolbar.

ID Barcode Properties				
Barcode Font Name:	Barcode Font Point Size:			
Times New Roman	✓ 10	Barcode Text		
Barcode Type:	🗖 Bold 🦵 Italic 🥅 Underli	ne		
C Extended Code 39	Text O Left	ext Position:		
Code 128 (Set B)	S C 90 Center			
C Code 128 (Set C digits only)	1xəl C 180 C Right			
C POSTNET	C 270	ext Position:		
Centering Option: Center On the Label	Barcode Color C Above	e v		
Our State Control Use the Edge Distance	(All Units are in Inches)			
Distance From Label Left Edge: 0.714 XWidth: 0.012				
Distance From Label Top Edge: 0	.208 Y Height: 0.27			
Insert Today's Date Insert the Time				
Barcode Text:				
123456				
Non-Printable				

Select the Barcode Type to be Code 128 (Set B) and then click the mouse in the edit box where **123456** is located and change the text to the letters "xyz123". Since a folder label is relatively small, we should also decrease the **Barcode Font Point Size** from 10 down to 8.

Your dialog box should look like the following.
ID Barcode Properties	
Barcode Font Name: E	Barcode Font Point Size:
Barcode Type: C Code 39 C Extended Code 39 C Code 128 (Set B) C Code 128 (Set C digits only) C POSTNET	Bold Italic Underline Rotation Angle: Horizontal Text Position: 0 Left 90 Center 180 Right 270 Vertical Text Position:
Centering Option: Center On the Label Use the Edge Distance	Above Barcode Color (All Units are in Inches)
Distance From Label Left Edge: 0.714	X Width: 0.012
Distance From Label Top Edge: 0.208	Y Height: 0.27
Insert Today's Date Barcode Text:	Insert the Time
Non-Printable	Cancel Help

Then when you click the \mathbf{Ok} button you should see the following label:



One special note about the handlebars at the four corners of the barcode is that they are hollow white squares. These special handlebars are primarily used to indicate the object is selected. They are not used to resize the object, because objects like barcodes and strings have their size automatically determined in other ways. In fact, the size of 1D barcodes is determined by setting the X Width and the Y Height values in the above dialog box. So to make the barcode larger or smaller you must specifically edit its properties.

You can also see the horizontal ruler indicator is longer and the vertical ruler indicator is shorter and both match the new length and height of the barcode object. Another important point is that this program draws the true barcode on the screen and it uses a small but exact number of screen pixels to draw the narrowest bars. Because of this, the actual length of a barcode on the screen can appear different from how it prints on a label. You will usually see the most accurate representation for the size of any barcode by choosing a Zoom factor of either 175% or 350% only. That is why in the toolbar the

default screen zoom factor appears as 175 . At other times you can decrease or increase this zoom factor, but then you will want to put it back at either 175% or 350% when you inspect your final label design. In any event be careful about placing other objects to the right of barcode objects because the true length of a printed barcode depends on the resolution of your printer. When a barcode object is selected the block outline will show the true size of the barcode when it is printed on a printer. When the zoom factor is other than 175% or 350% then you may notice the outline rectangle can differ from the actual barcode rectangular area. This is normal, but the block outline shows the true extent of the barcode when it gets printed on a printer.

Barcode objects can be rotated at 90, 180, or 270 degrees counterclockwise, just like block text can be rotated. Barcode objects can also be given an automatic centering property that depends on the current rotation angle. When the angle is 0 or 180 and centering is chosen, the barcode object will be centered horizontally on the label. When the angle is 90 or 270 the barcode object runs up and down vertically on the label and in these cases if you choose to center the barcode it will be centered vertically on the label. However, horizontally centered barcodes can be moved vertically anywhere and vertically centered barcodes can be moved horizontally anywhere.

You might also note that when the **Barcode Type** is **Code 128** (**Set C digits only**) then any non-digit numbers in your typed text will automatically be converted to 0's. Also, when you select **Code 39** the barcode text will appear in all upper-case even though you may have typed in some lower-case letters. **Code 39** only allows for upper-case text. **Extended Code 39** barcode allows lower-case letters, but this barcode has the disadvantage that it tends to make long bars. Since labels are relatively small, you should avoid either type of **Code 39** and will probably prefer using **Code 128**. When you use **Code 128** (**Set C digits only**) the text you type may change so as to always make an even number of digits. The program will add a preceding 0 to make an even number of digits in this case. **Code 128** (**Set B**) would be preferred when such a preceding 0 is undesirable. We find **Code 128** (**Set B**) works well for most applications. We only use **Code 39** when an application requires exactly that barcode. The **POSTNET** barcodes are very special, and are normally only used for printing ZIP codes on envelope address labels. **POSTNET** barcodes never print the string of digits that are the ZIP code as text (so the **Print Text Under Barcode** checkbox in the above dialog box is ignored), and the height of **POSTNET** bars, unlike the other barcode types, is fixed and does not change with the font size because essentially there is no font associated with **POSTNET** barcodes.

Finally, click the barcode item with the left mouse button and continue to hold down that button until you drag the barcode item so it appears close to and just to the right of the oval. In the figure below we have positioned the barcode so that its left edge appears at the $\frac{1}{2}$ inch mark on the horizontal ruler and the bottom edge appears at the $\frac{1}{2}$ inch mark on the vertical ruler.



To finish our folder label we are going to add one line of text. Select the Text String tool in the lower toolbar. That same button will then appear depressed T. Now you can click your mouse in the white space below the barcode. You should then see a new text string object get created on the label where you clicked the mouse. The Select Tool will now be active (the Text String Tool is automatically turned off T) with the new text string chosen as the currently selected object.



Grab the new text string item in its middle with the left mouse button and drag or move the string until it appears under the other two items, but near the left edge of the label.

	xyz123	 	
New text stri	ıg	 	

Finally, click the **Properties** button in the upper toolbar and you should see a dialog box similar to the following:

📟 Text S	tring Propert	es _ 🗆 🗙
Font Nam Times Ne	ne: sw Roman IV Italic IV	Font Point Size: 10 Text Color Underline
Text ^{txa} L ^x aL Text	Rotation Angle: © 0 © 90 © 180 © 270 Distance From	Insert Today's Date Insert the Time Centering Option: Center On the Label Use the Edge Distance (All Units are in Inches) Label Left Edge: 0.123
Text Mes: This is a I	Distance sage: folder label 'rintable	From Label Top: 0.558

Change the text message to "This is a folder label" and turn on the Bold, Italic and Underline checkboxes. Then click the **Ok** button. Now the label should appear as:

	xyz123		
This is a folda	e lab al		

Text strings can also be given an automatic centering property that depends on the current rotation angle. When the angle is 0 or 180 and centering is chosen, the text string will be centered horizontally on the label. When the angle is 90 or 270 the text string runs up and down vertically on the label and in these cases if you choose to center the text string it will be centered vertically on the label. However, horizontally centered strings can be moved vertically anywhere and vertically centered strings can be moved horizontally anywhere.

If you left-click the mouse in any white space area away from any item then no label item will appear selected. In fact, clicking a white area is the standard way of making no selection. Clicking a white area of the label will automatically turn on the Select Tool

in the lower toolbar. Otherwise clicking any object with the left mouse button will select that object for further operations.

10.2 Toolbar Tools

Properties

You may also note that there is a button in the upper toolbar that appears as An alternative to right-clicking an item to bring up the Properties menu item is to just click this button. However, this button will become inactive and will be grayed-out unless or until you select an object.

There are several other items in the upper toolbar that will change from active to inactive states depending on the nature of the last item you select. For example, font properties are associated with regular text strings and barcodes and rotated block text and font properties include the following controls in the upper toolbar.



These can be used to change the font name, the font point size, and the bold and italic and underline font attributes of regular text strings, and rotated block text. But these controls become inactive whenever you select a geometric object or a picture image. Also, the bold, italic and underline attributes do not apply to barcode objects, but you can change the font name and font point size of barcode objects. The color control in appears in the upper toolbar as and this can be used to change the color of any item except a picture image. In fact, left-clicking this button changes the main color of an object, while right-clicking it changes the border color of geometric objects like ovals and rectangles and it also changes the background block color of rotated block text. You can even change the color of barcode objects although almost all barcodes have the default color of black.

The control that appears in the upper toolbar as is used to set the line thickness for simple lines as well as the border lines of ovals and rectangles.

The control that appears in the upper toolbar as \bigcirc can be used to rotate either geometric objects like lines, ovals, and rectangles, or text strings or rotated block text and even barcodes and picture images. Each click of this button rotates all selected objects 90 degrees counter-clockwise using their individual body centers. Clicking this button 4 times returns all objects to their original orientations. For example the following shows the four possible orientations of a barcode object with the text of each barcode example showing the number of degrees of counterclockwise rotation.







180 Degrees

Yes, if you think about it, barcode at 180 degrees doesn't make a whole lot of sense, but most automatic readers can read barcodes backwards or forwards. Sometimes it is useful to print barcodes vertically at either 90 or 270 degrees. Regular text strings can also be rotated just like the above barcode examples.

If a control in a toolbar appears inactive and grayed-out when you select an object it is because that control does not apply to that object. Only the active controls remain active for each different type of object.

The three buttons that appear as are cut, copy and paste buttons that are private to this program only. In other words, they do not work with the Windows clipboard, but instead work with a clipboard that is private to this program. You can cut copy and paste any number of objects as long as they are objects you place on a label using this program.

The two buttons that appear as are the Redo and Undo buttons respectively. The ALabel program provides one level of Undo and one level of Redo. Only one of these buttons is active at a time. After pressing either the Undo or the Redo button, the other button becomes active. These two functions are also the first two menu items under the Edit menu, and under that menu you can see additional information about exactly what editing change will be undone.

10.3 Using the Snap to Grid

Inactive Another button in the lower toolbar helps control the Snap-To Grid. call this button the Snap-To Grid button. The default status caption on this button shows

the word Inactive. However, we must distinguish two options associated with this button. The word **Inactive** will change to **Active** whenever the Snap-To-Action is active. But the Snap-To Action is independent of whether the Snap-To grid is drawn or not. If you leftclick this button, the current label will be drawn showing the Snap-To Grid. When the Snap-To Grid is drawn you will see either lines or little dots drawn all over the label. Lines are the default, but the next figure shows the dots.

We



Note that the wording on the Snap-To button still shows the word **Inactive**. That is because the **Active-Inactive** caption of this button has nothing to do with whether the grid lines or the grid dots are drawn or not.

If you left-click this same button again, the grid lines or grid dots will disappear, but note that the wording on the Snap-To button still continues to show **Inactive**. Each time you left-click this grid button the grid lines or dots are either drawn or they disappear.

To turn the Snap-To Action **Active** you need to right-click this button. Now the button caption shows the word **Active**, even though the grid lines or dots are not currently being drawn. Active. Thus you need to understand that the words **Active** or **Inactive** do NOT apply to drawing the Snap-To grid, they only apply to turn the Snap-To Action on or off. The Snap-To Action can be active even if the grid lines or dots are NOT drawn.

If you hold down the **CTRL** key on your keyboard while you left-click the grid button you will bring up the following dialog box that controls all the Snap-To grid options.

📟 The Snap-To Grid Options	- 🗆 ×
(All Units are in Inches) Horizontal Spacing: 0.125 Vertical Spacing: 0.125 ✓ Draw the Snap-To Grid ✓ Activate the Snap-To Action	Set To Match Ruler Gradations Set 0.1 Inches Set 0.25 Inches Set 0.1 Centimeters Set 0.25 Centimeters
Lines Dots	Help

You can see two independent check boxes. One controls whether or not you draw the Snap-To Grid line or dots and the other controls whether the Snap-To Action is Active or Inactive. Left or right-clicking the grid button in the toolbar toggles these two options on or off without you having to bring up this dialog box by going through the Options menu. Note that you also have the option of drawing grid lines or grid dots. The default is to draw grid lines.

The other point to note about this dialog box is that you can set almost any size for the grid spacing, and you can make the horizontal distance between the grid markers different from the vertical distance between the markers. If a spacing value you enter is not a legal decimal or if it is zero or negative then the program will automatically set the spacing to 0.25 inches. Also, spacing values must be between 0.02 inches and 1.0 inches. Anything less than 0.02 inches will be reset to 0.02 inches and anything over 1.0 inches will be reset to 1.0 inches.

There are four buttons that automatically set both grid spacing values. Matching the ruler gradations means setting either 0.125 inches or 0.2 centimeters, depending on the current rulers measurement. We had inches selected when the above dialog picture was taken. If we had been showing centimeters in the rulers then all the units would be measured in centimeters. As with all dialog boxes, you never need to convert between inches or centimeters. Just make the rulers use the units you want and all dialog boxes will display and use your desired units.

When the Snap-To Action is Active, and you drag or re-position an object on the label, the upper-left corner of the object will automatically snap-to the nearest grid marker. The

Snap-To action doesn't happen until you let go of the object. Neither the width, nor the height of an object are changed by the Snap-To action. It is only the position of the upper-left corner of an object that will be forced to the nearest grid line or grid dot position, whether the grid markers (lines or dots) are currently being displayed or not.

10.4 Saving a Folder Label

We are now done creating our first sample folder label. Before printing it, lets save our work in a file. Select the menu item **File | Save a Template...**

📟 Image 2000 - Avery 5160 : 10 x 3
File Edit Options View Help
New Blank Label
Open a Template
Save a Template
Open a Sheet Specification
Save a Sheet Specification
Setup An Automatic Print Scheme
Open a Data File
Printer Setup
Print Individual Labels
Print Full Sheets of Labels
Print a Set of Notebook Tabs
Print an Envelope
Print a Data File
Print A Range of Serial Numbers
Print Scanner Control Sheets
Exit

Next you will see a dialog box like the following:

🚟 Template Save Option											
Items Template File Option: Save the Keyname Con't Save The Keyname	The Print Job Keyname:										
Saving the Keyname allows the corresponding SheetSpec File to automatically load whenever the Template is loaded. Not saving the Keyname means the Template will be independent from any Sheet Specification file.											
🔲 Create Sheet Specificati	on File Using the Keyname										
0	k										

Keynames are not explained in this tutorial, but they are explained in another help file that discusses automatic printing. Usually we recommend that you do save a Keyname with your Items Template file.

For this tutorial you can just click the OK button to ignore the above dialog box.

You should then see a standard dialog box for saving a file. Give the filename as **SampleFolderItemsTemplate.txt**. Generally speaking we name our template files as text files and we use **ItemsTemplate.txt** as the last part of the filename. Click the **Ok** button and the program will save your work. Whenever you do save a Keyname, all you would enter for the Keyname is **SampleFolder**, and the program will automatically save two files with the names **SampleFolderItemsTemplate.txt** and **SampleFolderSheetSpec.txt**.

10.5 Printing a Folder Label

To initiate the printing process, you can select the menu item under File that says **Print Individual Labels...**



or you can just press **CTRL+P** using your keyboard. You should then see the following dialog box.

B Printing Instructions	
Label Printing Order: Print Left-Right Across the Columns Print Top-Bottom Down the Rows Number of Labels To Print:	First Page Starting Label Row Column 1 • 1 •
Ok	Help

Select the number of labels you want to print. Usually this number may just be 1, but you can print 500 or more labels at once if you need that many.

The reason this dialog appears before printing is so you can set the **Label Printing Order** and you can tell the program what label position to start printing at. When you print only one label these controls allow you to specify exactly which label it will be on the label sheet. The **First Page Starting Label** title has **Row** and **Column** numbers under it to identify the position of the first label to be printed.

Fir	st Page S	itarting L	abel.
R	ow	Col	umn
1	\$	1	\$

If you are printing from a label roll using a special label printer as opposed to printing from a full sheet of individual labels then these controls are not considered significant since each label is then considered to lie on an entire sheet that only contains one label. In this special circumstance, your label sheet specifications properties should define the current sheet as containing only one row and one column which means it defines only one label. It may seem odd to consider a roll of labels in this manner, but this terminology is consistent for those who print from full sheets of labels as opposed to printing from a continuous roll of individual labels.

Since we are just practicing for this tutorial example, it doesn't really matter what we select here. Click the **Ok** button and then you will see one more dialog box like the following:

Print		? 🛛
Printer		
Name:	Panasonic KX-P7305 PCL6	Properties
Status:	Ready	
Type:	Panasonic KX-P7305 PCL6	
Where:	LPT1:	
Comment:		
Print range		Copies
All		Number of copies: 1
C Pages	from: to:	
C Select	ion	1 ¹ 2 ² 3 ³ Collate
		OK Cancel

This dialog box allows you to select the printer when you have more than one printer. Although this also has a **Copies** control, that control is not used by the **ALABEL** program.

For this tutorial you can click the **Cancel** button because we don't really need to print anything now. Otherwise, when you really print a label, you would click the **Ok** button and then the program will finally print the label.

10.6 Creating a Box Label

In the final part of this tutorial we are going to create a sample box label. A typical box label is larger than a folder label and it can contain more information.

To begin, first click the button in the lower toolbar that will clear all items from the

current label. \Box . When prompted you can click the **Yes** button to continue. You should now be looking at a blank label.

A typical box label is larger than a folder label so we are going to select a larger label than what we currently have. Choose the menu item **Options** | **Label Sheet Specifications...** and when the dialog box appears, choose the **Manufactured Name** as **Avery 5163**.

Label Sheet Specificat	ions		_ 🗆
Manufactured Names:	All measurements are in decimal inches accurate to hundredths.	Change th	e Print Order
Avery 5163 Avery 6466	Individual Label Width = 4.000	·	
Avery 8662 Business Backs Folder Top	Individual Label Height = 2.000	1	2
Folder Vertical Landscape 11x8.5	First Column Left Page Margin = 0.150	1	2
Master Large Box Master Sheet Spec	First Row Top Page Margin = 0.500		·
Master Single Wide Office Z Plain 3-Across	Space Between Columns = 0.200	3	4
Portrait 8.5x11 Single Wide	Space Between Rows = 0.000	\	
Whatever	Number of Rows of Labels = 5	5	6
Portrait	Number of Columns of Labels = 2		
C Landscape	Sheet Width = 8.500	_	
Redraw	Sheet Color Sheet Height = 11.000	7	8
Print a Sheet Template	E Load Label Sheet Information		
Print Template Label Nur	mbers Save Label Sheet Information	9	10
0		·	· · · · · · · · · · · · · · · · · · ·
NRCONMAGE2000VALabelVE	DELPHIVAvery5163SheetSpec.txt		

Then click the **Ok** button.

Now you should see a larger blank label.



Next we are going to quickly add three text strings. Perform the steps described in the next paragraph three times in a row.

Click on the Text String Tool button in the lower toolbar. **T** That same button will then appear depressed **T**. Now you can click your mouse in the white space on the label to create a new text string that is positioned where you click the mouse. You have to re-

click the Text String Tool button each time you want to create a new text string. Do this three times to create three text strings that should look like the following: Only the last text string that was created will appear selected.

$\left(\right)$	 															 	 		 	 	 		\mathbb{Z}
	 				- 1	Ne	w	ter	xt :	str	in	g				 	 			 			
]	Ne	w	te	xt	stı	rin	g	 	 	 	 	 	 		
							_							_									
]	Ne	w	te	xt	str	in	g				 	 		 		
																							\mathcal{I}

Next, click each text string in its middle to select it and while continuing to hold down the left mouse button drag the strings on the label so they have the approximate positions as shown in the next figure. The placement of the text strings does not have to be at all exact.



Then starting with the topmost text string, right-click each text string and select the **Properties** menu item from the popup menu that appears and change the text content of each of the strings so they look like the following:



You should see a small window in the lower-right of the program window that has the title **Align Objects**.

IIII A	×			
ĻĽ	ţĹ ⁺Ĺ	[́∎]	гŢ	Ļ
]	ţŢţ	[¶] ∏	L t⊥	ļ

This window and the ten buttons it contains is called the Alignment Palette. If you don't see the Alignment Palette then choose the menu item **Edit | Show the Alignment Palette**. You should see a little toolbar palette appear near the lower-right of the program window. This toolbar has ten buttons on it that allow you to automatically align and position objects on the label.

We are going to perform a specific action to select the three text strings. First, to unselect all three text strings, click in any white space area of the label. None of the text strings should appear selected. While holding down the shift key on your keyboard, first leftclick the topmost text string. It will grow handle bars to indicate it is selected. Keep holding down the shift key on your keyboard and then left-click the middle text string to select it, and finally left-click the bottom-most text string to select it. Now that all three text strings have been selected you can let up on the shift key on the keyboard and you can let up on the mouse. Your label should look like the following:



The yellow ruler indicators are for only one particular selected object when you have more than one object selected. In fact, they are usually for the last selected object.

The little white handle bars are used to indicate that you cannot resize these objects by grabbing them. The only way you can resize a text string is to change its font point size.

Now we are going to demonstrate a couple of features of the Alignment Palette tools. Without holding down or clicking the mouse, just slowly move your mouse across each of the 10 buttons on the Alignment Palette. You should see little popup tool tips that indicate what each button does. While looking at the text strings click the button that appears as:



Clicking this alignment button should cause all three objects to become aligned by the left edge of the top text string, that was the first item we selected in this selection group. You should now see the three objects appear as:



Next, press the alignment button that appears as



Now you should see the objects are aligned by the right edge of the first text string.

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Next, click the alignment button that appears as

This button is used to align the horizontal centers of objects. You should see all three strings are now centered horizontally with the horizontal center of the first text string.



When you hold down the shift key on your keyboard and you select multiple objects, the program remembers the first and last objects you selected. Then when you click buttons on the Alignment Palette the program will use either the first or the last, or both the first and last selections to help it perform its operations.

For the left and right and center alignments that we just performed, the program only used the first object to determine the relative alignment positions of the other objects to that first object.

Note that these three objects are not uniformly spaced vertically between each other. We can easily fix that. Click the button that appears as



This button is used to uniformly space objects in the vertical sense. In this case, the program used the first and last selections to determine the top and bottom alignment objects and it uniformly spaced the middle object between the first and last objects. Now the three objects should appear both vertically and horizontally aligned.



Now be careful to click in the center of any object and continue to hold down the left mouse button. With all three objects selected you can now move all three objects at once, and they will maintain their relative positions to one another. Try moving all three objects down near the lower-right corner of the label and then let up on the left mouse button. The three objects should remain selected and should appear as:



Next, click the alignment button that appears as

LT L

You should then see all three objects maintain their relative positions to one another but the entire group should now be centered in the horizontal position of the entire label.



However, the objects are not centered vertically on the label. But we can accomplish that by clicking the alignment button that appears as



Now the objects should also be centered vertically on the label.



To complete our box label design we are going to create a barcode and we need to move the three text strings out of the way. So click the left edge alignment button

□_

and after the objects align, move them as a group near the left edge of the label so they appear approximately as shown below.



Then left click the 1D Barcode Tool . This button will <u>change</u> to appear depressed

which means the 1D Barcode Tool is temporarily selected . Now left click once in the white space under the last string. When you create any object on the label, that object becomes the newly selected object and any previously selected objects will become unselected.

Right-click the new barcode object and when the popup menu appears select **Properties** and when the dialog box appears, change the font point size to 8 and change the barcode text to read like a serial number as shown below.

🕮 1D Barcode Properties		
Barcode Font Name:	Barcode Font Point Size:	
Times New Roman	💌 🛛 🕏 🔽 Print th	e Barcode Text
Barcode Type: C Code 39	🗖 Bold 🥅 Italic 🥅 Unde	erline
C Extended Code 39	Text O	Text Position:
Code 128 (Set B)	TX C 90 Center	
C Code 128 (Set C digits only)	1xəl C 180 C Right	
C POSTNET	C 270	I Text Position:
Centering Option:	Barcode Color C Ab	ow
Use the Edge Distance	(All Units are in Inches)	
Distance From Label Left Edge: 🛛	.183 X Width: 0.	012
Distance From Label Top Edge: 1	.064 Y Height: 0.	27
Insert Today's I	Date Insert the Time	
Barcode Text: 0-818-573		_
Non-Printable	Cancel Help	

Click the **Ok** button and then grab the barcode object and move it under the text strings and move it near the left edge of the label. The final box label should appear as:



10.7Using the Non-Printable Feature

You may have noticed in all of the above object properties dialog boxes that there is a checkbox to make any object unprintable. Why would anyone design a label and put an unprintable object on it? The main reason is to allow drawing items for cropping marks or other indicators that may help you align objects on a label without having to print those special marks. Usually only some lines or some rectangles are used as special non-printable alignment-type objects.

Another example occurs when printing envelopes. In that case the items template for a standard envelope shows a rectangular outline of the envelope, but of course that outline should not be printed when all you want to print are the return and regular addresses. So you have the option of making any object on a label unprintable, even though you may only find a practical use for this with lines or geometric objects. The feature is also sometimes used to just temporarily turn off an object but still allow you to see where that object would appear if it were printed.

10.8 Program Precautions

We caution you not to place label objects too close to one another nor too close to a label border. When the program prints a label it determines the exact font size for your printer and this may cause a slight resize from the screen font you see. In fact, the actual screen font is normally just over twice as large as the printer font. When the screen font size is doubled from the printer font, the nearest font size is only guaranteed to be accurate to within plus or minus one point size.

This means the exact printed size of text strings and barcodes could slightly expand. So be sure to leave room for a little expansion to the right of text and especially barcode. In fact, we usually only place objects near the left border of labels so there is sufficient room on the right to allow for longer length barcodes. In general, barcodes expand and

appear longer when printed due to the difference in resolution between your screen and your printer. So always leave some white space to the right of text and barcodes.

Since all the **ALABEL** program does is edit one label at a time, it does not warn you to save your template objects in a file when you close the program. Thus you will lose your work unless you decide to save it. However, the program also automatically expands the **File** menu whenever you open or save a file. This means when you need to re-open a file all you have to do is look for the same recently used filename at the bottom of the **File** menu. The program remembers the last 9 files you worked with.

A final aspect of the program to know is that a label's design is independent of the label sheet that it gets printed on. Thus, with the above box label still active, if you were to

open the label sheet specifications dialog box by clicking the Sheet Information button in the toolbar and switch to a smaller label, say the default Avery 5160 label, then you might see something like the following



Due to the smaller label size, the barcode object appears outside the label borders. There is nothing wrong here, because as soon as you select the barcode object and try to move it, the program will automatically force the barcode to stay within the borders of the currently selected label. You may have already noticed that in general you cannot drag any label item outside of the label's borders.

So while it is possible to switch to another label sheet while working on a current label design, you should normally choose the correct label size before you begin the design of a new label. However, if several different sized labels all contain the same design elements, this program does allow you to switch label sizes and continue to use common elements. This feature is useful for example if you had an address label design that you wanted to use on a small label for a regular sized envelope and you wanted to use the same design for a large box label that would be attached to a box. Thus a deliberate design decision for this program was to make sheet specifications distinct from template

designs. That's why you need to know a little about both sheet specifications and item templates to make full and effective use of this program.

This concludes the **ALABEL** program tutorial. There are three other help files you can access from the program. One help file discusses label sheets and their format and numbering schemes in more detail. Another help file is concerned with Printing. The third help file is the standard help file for **ALABEL**.

11 Color

The following section came from <u>http://cloford.com/resources/colours/500col.htm</u> but in case the web site disappears you have it here.

This page lists over 500 colours by colour name, Hex value, RGB value and Microsoft Access code number.

You cannot specify these colours in HTML and CSS by their colour name but you can use their RGB hexadecimal value, eg:

```
<font color="#800080">
```

and in CSS you can also use their RGB decimal values, eg:

P { rgb(128,0,128); }

For details of colour names you can use in your HTML and CSS code, see the section on <u>named colours</u>. (Colours marked with an asterisk* are included in the VGA colour set).

Colour Name	Col	Hex	R	G	В
indian red		#B0171F	176	23	31
crimson		#DC143C	220	20	60
lightpink		#FFB6C1	255	182	193
lightpink 1		#FFAEB9	255	174	185
lightpink 2		#EEA2AD	238	162	173
lightpink 3		#CD8C95	205	140	149
lightpink 4		#8B5F65	139	95	101
pink		#FFC0CB	255	192	203
pink 1		#FFB5C5	255	181	197
pink 2		#EEA9B8	238	169	184
pink 3		#CD919E	205	145	158
pink 4		#8B636C	139	99	108
palevioletred		#DB7093	219	112	147
palevioletred 1		#FF82AB	255	130	171

palevioletred 2	#EE799F	238 121 159
palevioletred 3	#CD6889	205 104 137
palevioletred 4	#8B475D	139 71 93
lavenderblush 1 (lavenderblush)	#FFF0F5	255 240 245
lavenderblush 2	#EEE0E5	238 224 229
lavenderblush 3	#CDC1C5	205 193 197
lavenderblush 4	#8B8386	139 131 134
violetred 1	#FF3E96	255 62 150
violetred 2	#EE3A8C	238 58 140
violetred 3	#CD3278	205 50 120
violetred 4	#8B2252	139 34 82
hotpink	#FF69B4	255 105 180
hotpink 1	#FF6EB4	255 110 180
hotpink 2	#EE6AA7	238 106 167
hotpink 3	#CD6090	205 96 144
hotpink 4	#8B3A62	139 58 98
raspberry	#872657	135 38 87
deeppink 1 (deeppink)	#FF1493	255 20 147
deeppink 2	#EE1289	238 18 137
deeppink 3	#CD1076	205 16 118
deeppink 4	#8B0A50	139 10 80
maroon 1	#FF34B3	255 52 179
maroon 2	#EE30A7	238 48 167
maroon 3	#CD2990	205 41 144
maroon 4	#8B1C62	139 28 98
mediumvioletred	#C71585	199 21 133
violetred	#D02090	208 32 144
orchid	#DA70D6	218 112 214
orchid 1	#FF83FA	255 131 250
orchid 2	#EE7AE9	238 122 233
orchid 3	#CD69C9	205 105 201
orchid 4	#8B4789	139 71 137
thistle	#D8BFD8	216 191 216
thistle 1	#FFE1FF	255 225 255
thistle 2	#EED2EE	238 210 238
thistle 3	#CDB5CD	205 181 205
thistle 4	#8B7B8B	139 123 139
plum 1	#FFBBFF	255 187 255

plum 2	#EEAEEE	238	174	238
plum 3	#CD96CD	205	150	205
plum 4	#8B668B	139	102	139
plum	#DDA0DD	221	160	221
violet	#EE82EE	238	130	238
magenta (fuchsia*)	#FF00FF	255	0	255
magenta 2	#EE00EE	238	0	238
magenta 3	#CD00CD	205	0	205
magenta 4 (darkmagenta)	#8B008B	139	0	139
purple*	#800080	128	0	128
mediumorchid	#BA55D3	186	85	211
mediumorchid 1	 #E066FF	224	102	255
mediumorchid 2	#D15FEE	209	95	238
mediumorchid 3	#B452CD	180	82	205
mediumorchid 4	#7A378B	122	55	139
darkviolet	#9400D3	148	0	211
darkorchid	#9932CC	153	50	204
darkorchid 1	#BF3EFF	191	62	255
darkorchid 2	#B23AEE	178	58	238
darkorchid 3	#9A32CD	154	50	205
darkorchid 4	#68228B	104	34	139
indigo	#4B0082	75	0	130
blueviolet	#8A2BE2	138	43	226
purple 1	#9B30FF	155	48	255
purple 2	#912CEE	145	44	238
purple 3	#7D26CD	125	38	205
purple 4	#551A8B	85	26	139
mediumpurple	#9370DB	147	112	219
mediumpurple 1	#AB82FF	171	130	255
mediumpurple 2	#9F79EE	159	121	238
mediumpurple 3	#8968CD	137	104	205
mediumpurple 4	#5D478B	93	71	139
darkslateblue	#483D8B	72	61	139
lightslateblue	#8470FF	132	112	255
mediumslateblue	#7B68EE	123	104	238
slateblue	#6A5ACD	106	90	205
slateblue 1	#836FFF	131	111	255
slateblue 2	#7A67EE	122	103	238

slateblue 3	#6959CD	105	89	205
slateblue 4	#473C8B	71	60	139
ghostwhite	#F8F8FF	248	248	255
lavender	#E6E6FA	230	230	250
blue*	#0000FF	0	0	255
blue 2	#0000EE	0	0	238
blue 3 (mediumblue)	#0000CD	0	0	205
blue 4 (darkblue)	#00008B	0	0	139
navy*	#000080	0	0	128
midnightblue	#191970	25	25	112
cobalt	#3D59AB	61	89	171
royalblue	#4169E1	65	105	225
royalblue 1	#4876FF	72	118	255
royalblue 2	#436EEE	67	110	238
royalblue 3	#3A5FCD	58	95	205
royalblue 4	#27408B	39	64	139
cornflowerblue	#6495ED	100	149	237
lightsteelblue	#B0C4DE	176	196	222
lightsteelblue 1	#CAE1FF	202	225	255
lightsteelblue 2	#BCD2EE	188	210	238
lightsteelblue 3	#A2B5CD	162	181	205
lightsteelblue 4	#6E7B8B	110	123	139
lightslategray	#778899	119	136	153
slategray	#708090	112	128	144
slategray 1	#C6E2FF	198	226	255
slategray 2	#B9D3EE	185	211	238
slategray 3	#9FB6CD	159	182	205
slategray 4	#6C7B8B	108	123	139
dodgerblue 1 (dodgerblue)	#1E90FF	30	144	255
dodgerblue 2	#1C86EE	28	134	238
dodgerblue 3	#1874CD	24	116	205
dodgerblue 4	#104E8B	16	78	139
aliceblue	#F0F8FF	240	248	255
steelblue	#4682B4	70	130	180
steelblue 1	#63B8FF	99	184	255
steelblue 2	#5CACEE	92	172	238
steelblue 3	#4F94CD	79	148	205
steelblue 4	#36648B	54	100	139

lightskyblue	#87CEFA	135	206	250	
lightskyblue 1	#B0E2FF	176	226	255	
lightskyblue 2	#A4D3EE	164	211	238	
lightskyblue 3	#8DB6CD	141	182	205	
lightskyblue 4	#607B8B	96	123	139	
skyblue 1	#87CEFF	135	206	255	
skyblue 2	#7EC0EE	126	192	238	
skyblue 3	#6CA6CD	108	166	205	
skyblue 4	#4A708B	74	112	139	
skyblue	#87CEEB	135	206	235	
deepskyblue 1 (deepskyblue)	#00BFFF	0	191	255	
deepskyblue 2	#00B2EE	0	178	238	
deepskyblue 3	#009ACD	0	154	205	
deepskyblue 4	#00688B	0	104	139	
peacock	#33A1C9	51	161	201	
lightblue	#ADD8E6	173	216	230	
lightblue 1	#BFEFFF	191	239	255	
lightblue 2	#B2DFEE	178	223	238	
lightblue 3	#9AC0CD	154	192	205	
lightblue 4	#68838B	104	131	139	
powderblue	#B0E0E6	176	224	230	
cadetblue 1	#98F5FF	152	245	255	
cadetblue 2	#8EE5EE	142	229	238	
cadetblue 3	#7AC5CD	122	197	205	
cadetblue 4	#53868B	83	134	139	
turquoise 1	#00F5FF	0	245	255	
turquoise 2	#00E5EE	0	229	238	
turquoise 3	#00C5CD	0	197	205	
turquoise 4	#00868B	0	134	139	
cadetblue	#5F9EA0	95	158	160	
darkturquoise	#00CED1	0	206	209	
azure 1 (azure)	#F0FFFF	240	255	255	
azure 2	#E0EEEE	224	238	238	
azure 3	#C1CDCD	193	205	205	
azure 4	#838B8B	131	139	139	
lightcyan 1 (lightcyan)	#E0FFFF	224	255	255	
lightcyan 2	#D1EEEE	209	238	238	
lightcyan 3	#B4CDCD	180	205	205	

lightcyan 4	#7A8B8B	122	139	139
paleturquoise 1	#BBFFFF	187	255	255
paleturquoise 2 (paleturquoise)	#AEEEEE	174	238	238
paleturquoise 3	#96CDCD	150	205	205
paleturquoise 4	#668B8B	102	139	139
darkslategray	#2F4F4F	47	79	79
darkslategray 1	#97FFFF	151	255	255
darkslategray 2	#8DEEEE	141	238	238
darkslategray 3	#79CDCD	121	205	205
darkslategray 4	#528B8B	82	139	139
cyan / aqua*	#00FFFF	0	255	255
cyan 2	#00EEEE	0	238	238
cyan 3	#00CDCD	0	205	205
cyan 4 (darkcyan)	#008B8B	0	139	139
teal*	#008080	0	128	128
mediumturquoise	#48D1CC	72	209	204
lightseagreen	#20B2AA	32	178	170
manganeseblue	#03A89E	3	168	158
turquoise	#40E0D0	64	224	208
coldgrey	#808A87	128	138	135
turquoiseblue	#00C78C	0	199	140
aquamarine 1 (aquamarine)	#7FFFD4	127	255	212
aquamarine 2	#76EEC6	118	238	198
aquamarine 3 (mediumaquamarine)	#66CDAA	102	205	170
aquamarine 4	#458B74	69	139	116
mediumspringgreen	#00FA9A	0	250	154
mintcream	#F5FFFA	245	255	250
springgreen	#00FF7F	0	255	127
springgreen 1	#00EE76	0	238	118
springgreen 2	#00CD66	0	205	102
springgreen 3	#008B45	0	139	69
mediumseagreen	#3CB371	60	179	113
seagreen 1	#54FF9F	84	255	159
seagreen 2	#4EEE94	78	238	148
seagreen 3	#43CD80	67	205	128
seagreen 4 (seagreen)	#2E8B57	46	139	87

emeraldgreen	#00C957	0	201	87
mint	#BDFCC9	189	252	201
cobaltgreen	#3D9140	61	145	64
honeydew 1 (honeydew)	#F0FFF0	240	255	240
honeydew 2	#E0EEE0	224	238	224
honeydew 3	#C1CDC1	193	205	193
honeydew 4	#838B83	131	139	131
darkseagreen	#8FBC8F	143	188	143
darkseagreen 1	#C1FFC1	193	255	193
darkseagreen 2	#B4EEB4	180	238	180
darkseagreen 3	#9BCD9B	155	205	155
darkseagreen 4	#698B69	105	139	105
palegreen	#98FB98	152	251	152
palegreen 1	#9AFF9A	154	255	154
palegreen 2 (lightgreen)	#90EE90	144	238	144
palegreen 3	#7CCD7C	124	205	124
palegreen 4	#548B54	84	139	84
limegreen	#32CD32	50	205	50
forestgreen	#228B22	34	139	34
green 1 (lime*)	#00FF00	0	255	0
green 2	#00EE00	0	238	0
green 3	#00CD00	0	205	0
green 4	#008B00	0	139	0
green*	#008000	0	128	0
darkgreen	#006400	0	100	0
sapgreen	#308014	48	128	20
lawngreen	#7CFC00	124	252	0
chartreuse 1 (chartreuse)	#7FFF00	127	255	0
chartreuse 2	#76EE00	118	238	0
chartreuse 3	#66CD00	102	205	0
chartreuse 4	#458B00	69	139	0
greenyellow	#ADFF2F	173	255	47
darkolivegreen 1	#CAFF70	202	255	112
darkolivegreen 2	#BCEE68	188	238	104
darkolivegreen 3	#A2CD5A	162	205	90
darkolivegreen 4	#6E8B3D	110	139	61
darkolivegreen	#556B2F	85	107	47

olivedrab	#6B8E23	107	142	35
olivedrab 1	#C0FF3E	192	255	62
olivedrab 2	#B3EE3A	179	238	58
olivedrab 3 (yellowgreen)	#9ACD32	154	205	50
olivedrab 4	#698B22	105	139	34
ivory 1 (ivory)	#FFFFF0	255	255	240
ivory 2	#EEEEE0	238	238	224
ivory 3	#CDCDC1	205	205	193
ivory 4	#8B8B83	139	139	131
beige	#F5F5DC	245	245	220
lightyellow 1 (lightyellow)	#FFFFE0	255	255	224
lightyellow 2	#EEEED1	238	238	209
lightyellow 3	#CDCDB4	205	205	180
lightyellow 4	#8B8B7A	139	139	122
lightgoldenrodyellow	#FAFAD2	250	250	210
yellow 1 (yellow*)	#FFFF00	255	255	0
yellow 2	#EEEE00	238	238	0
yellow 3	#CDCD00	205	205	0
yellow 4	#8B8B00	139	139	0
warmgrey	#808069	128	128	105
olive*	#808000	128	128	0
darkkhaki	#BDB76B	189	183	107
khaki 1	#FFF68F	255	246	143
khaki 2	#EEE685	238	230	133
khaki 3	#CDC673	205	198	115
khaki 4	#8B864E	139	134	78
khaki	#F0E68C	240	230	140
palegoldenrod	#EEE8AA	238	232	170
lemonchiffon 1 (lemonchiffon)	#FFFACD	255	250	205
lemonchiffon 2	#EEE9BF	238	233	191
lemonchiffon 3	#CDC9A5	205	201	165
lemonchiffon 4	#8B8970	139	137	112
lightgoldenrod 1	#FFEC8B	255	236	139
lightgoldenrod 2	#EEDC82	238	220	130
lightgoldenrod 3	#CDBE70	205	190	112
lightgoldenrod 4	#8B814C	139	129	76
banana	#E3CF57	227	207	87

gold 1 (gold)	#FFD700	255	215	0
gold 2	#EEC900	238	201	0
gold 3	#CDAD00	205	173	0
gold 4	#8B7500	139	117	0
cornsilk 1 (cornsilk)	#FFF8DC	255	248	220
cornsilk 2	#EEE8CD	238	232	205
cornsilk 3	#CDC8B1	205	200	177
cornsilk 4	#8B8878	139	136	120
goldenrod	#DAA520	218	165	32
goldenrod 1	#FFC125	255	193	37
goldenrod 2	#EEB422	238	180	34
goldenrod 3	#CD9B1D	205	155	29
goldenrod 4	#8B6914	139	105	20
darkgoldenrod	#B8860B	184	134	11
darkgoldenrod 1	#FFB90F	255	185	15
darkgoldenrod 2	#EEAD0E	238	173	14
darkgoldenrod 3	#CD950C	205	149	12
darkgoldenrod 4	#8B6508	139	101	8
orange 1 (orange)	#FFA500	255	165	0
orange 2	#EE9A00	238	154	0
orange 3	#CD8500	205	133	0
orange 4	#8B5A00	139	90	0
floralwhite	#FFFAF0	255	250	240
oldlace	#FDF5E6	253	245	230
wheat	#F5DEB3	245	222	179
wheat 1	#FFE7BA	255	231	186
wheat 2	#EED8AE	238	216	174
wheat 3	#CDBA96	205	186	150
wheat 4	#8B7E66	139	126	102
moccasin	#FFE4B5	255	228	181
papayawhip	#FFEFD5	255	239	213
blanchedalmond	#FFEBCD	255	235	205
navajowhite 1 (navajowhite)	#FFDEAD	255	222	173
navajowhite 2	#EECFA1	238	207	161
navajowhite 3	#CDB38B	205	179	139
navajowhite 4	#8B795E	139	121	94
eggshell	#FCE6C9	252	230	201
tan	#D2B48C	210	180	140

brick	#9C661F	156	102	31
cadmiumyellow	#FF9912	255	153	18
antiquewhite	#FAEBD7	250	235	215
antiquewhite 1	#FFEFDB	255	239	219
antiquewhite 2	#EEDFCC	238	223	204
antiquewhite 3	#CDC0B0	205	192	176
antiquewhite 4	#8B8378	139	131	120
burlywood	#DEB887	222	184	135
burlywood 1	#FFD39B	255	211	155
burlywood 2	#EEC591	238	197	145
burlywood 3	#CDAA7D	205	170	125
burlywood 4	#8B7355	139	115	85
bisque 1 (bisque)	#FFE4C4	255	228	196
bisque 2	#EED5B7	238	213	183
bisque 3	#CDB79E	205	183	158
bisque 4	#8B7D6B	139	125	107
melon	#E3A869	227	168	105
carrot	#ED9121	237	145	33
darkorange	#FF8C00	255	140	0
darkorange 1	#FF7F00	255	127	0
darkorange 2	#EE7600	238	118	0
darkorange 3	#CD6600	205	102	0
darkorange 4	#8B4500	139	69	0
orange	#FF8000	255	128	0
tan 1	#FFA54F	255	165	79
tan 2	#EE9A49	238	154	73
tan 3 (peru)	#CD853F	205	133	63
tan 4	#8B5A2B	139	90	43
linen	#FAF0E6	250	240	230
peachpuff 1 (peachpuff)	#FFDAB9	255	218	185
peachpuff 2	#EECBAD	238	203	173
peachpuff 3	#CDAF95	205	175	149
peachpuff 4	#8B7765	139	119	101
seashell 1 (seashell)	#FFF5EE	255	245	238
seashell 2	#EEE5DE	238	229	222
seashell 3	#CDC5BF	205	197	191
seashell 4	#8B8682	139	134	130
sandybrown	#F4A460	244	164	96

rawsienna	#C76114	199	97	20
chocolate	#D2691E	210	105	30
chocolate 1	#FF7F24	255	127	36
chocolate 2	#EE7621	238	118	33
chocolate 3	#CD661D	205	102	29
chocolate 4 (saddlebrown)	#8B4513	139	69	19
ivoryblack	#292421	41	36	33
flesh	#FF7D40	255	125	64
cadmiumorange	#FF6103	255	97	3
burntsienna	#8A360F	138	54	15
sienna	#A0522D	160	82	45
sienna 1	#FF8247	255	130	71
sienna 2	#EE7942	238	121	66
sienna 3	#CD6839	205	104	57
sienna 4	#8B4726	139	71	38
lightsalmon 1 (lightsalmon)	#FFA07A	255	160	122
lightsalmon 2	#EE9572	238	149	114
lightsalmon 3	#CD8162	205	129	98
lightsalmon 4	#8B5742	139	87	66
coral	#FF7F50	255	127	80
orangered 1 (orangered)	#FF4500	255	69	0
orangered 2	#EE4000	238	64	0
orangered 3	#CD3700	205	55	0
orangered 4	#8B2500	139	37	0
sepia	#5E2612	94	38	18
darksalmon	#E9967A	233	150	122
salmon 1	#FF8C69	255	140	105
salmon 2	#EE8262	238	130	98
salmon 3	#CD7054	205	112	84
salmon 4	#8B4C39	139	76	57
coral 1	#FF7256	255	114	86
coral 2	#EE6A50	238	106	80
coral 3	#CD5B45	205	91	69
coral 4	#8B3E2F	139	62	47
burntumber	#8A3324	138	51	36
tomato 1 (tomato)	#FF6347	255	99	71
tomato 2	#EE5C42	238	92	66
tomato 3	#CD4F39	205	79	57
-------------------------	---------	-----	-----	-----
tomato 4	#8B3626	139	54	38
salmon	#FA8072	250	128	114
mistyrose 1 (mistyrose)	#FFE4E1	255	228	225
misturose 2	#EED5D2	228	213	210
mistyrose 2	#CD8785	205	102	101
mistyrose 4	#887D78	130	125	123
snow 1 (snow)	#EEEAEA	255	250	250
snow 2	#FFF9F9	238	233	233
snow 3	#CDC9C9	205	200	200
snow 4	#8B8989	139	137	137
rosvbrown	#BC8F8F	188	143	143
rosybrown 1	#EEC1C1	255	193	193
rosybrown 2	#FFB4B4	238	180	180
rosybrown 3	#CD9B9B	205	155	155
rosybrown 4	#8B6969	139	105	105
lightcoral	#F08080	240	128	128
indianred	#CD5C5C	205	92	92
indianred 1	#FF6A6A	255	106	106
indianred 2	#EE6363	238	99	99
indianred 4	#8B3A3A	139	58	58
indianred 3	#CD5555	205	85	85
brown	#A52A2A	165	42	42
brown 1	#FF4040	255	64	64
brown 2	#EE3B3B	238	59	59
brown 3	#CD3333	205	51	51
brown 4	#8B2323	139	35	35
firebrick	#B22222	178	34	34
firebrick 1	#FF3030	255	48	48
firebrick 2	#EE2C2C	238	44	44
firebrick 3	#CD2626	205	38	38
firebrick 4	#8B1A1A	139	26	26
red 1 (red*)	#FF0000	255	0	0
red 2	#EE0000	238	0	0
red 3	#CD0000	205	0	0
red 4 (darkred)	#8B0000	139	0	0
maroon*	#800000	128	0	0
sgi beet	#8E388E	142	56	142

sgi slateblue	#7171C6	113	113	198	
sgi lightblue	#7D9EC0	125	158	192	
sgi teal	#388E8E	56	142	142	
sgi chartreuse	#71C671	113	198	113	
sgi olivedrab	#8E8E38	142	142	56	
sgi brightgray	#C5C1AA	197	193	170	
sgi salmon	#C67171	198	113	113	
sgi darkgray	#555555	85	85	85	
sgi gray 12	#1E1E1E	30	30	30	
sgi gray 16	#282828	40	40	40	
sgi gray 32	#515151	81	81	81	
sgi gray 36	#5B5B5B	91	91	91	
sgi gray 52	#848484	132	132	132	
sgi gray 56	#8E8E8E	142	142	142	
sgi lightgray	#AAAAAA	170	170	170	
sgi gray 72	#B7B7B7	183	183	183	
sgi gray 76	#C1C1C1	193	193	193	
sgi gray 92	#EAEAEA	234	234	234	
sgi gray 96	#F4F4F4	244	244	244	
white*	#FFFFFF	255	255	255	
white smoke (gray 96)	#F5F5F5	245	245	245	
gainsboro	#DCDCDC	220	220	220	
lightgrey	#D3D3D3	211	211	211	
silver*	#C0C0C0	192	192	192	
darkgray	#A9A9A9	169	169	169	
gray*	#808080	128	128	128	
dimgray (gray 42)	#696969	105	105	105	
black*	#000000	0	0	0	
gray 99	#FCFCFC	252	252	252	
gray 98	#FAFAFA	250	250	250	
gray 97	#F7F7F7	247	247	247	
white smoke (gray 96)	#F5F5F5	245	245	245	
gray 95	#F2F2F2	242	242	242	
gray 94	#F0F0F0	240	240	240	
gray 93	#EDEDED	237	237	237	
gray 92	#EBEBEB	235	235	235	
gray 91	#E8E8E8	232	232	232	
gray 90	#E5E5E5	229	229	229	

gray 89	#E3E3E3	227	227	227
gray 88	#E0E0E0	224	224	224
gray 87	#DEDEDE	222	222	222
gray 86	#DBDBDB	219	219	219
gray 85	#D9D9D9	217	217	217
gray 84	#D6D6D6	214	214	214
gray 83	#D4D4D4	212	212	212
gray 82	#D1D1D1	209	209	209
gray 81	#CFCFCF	207	207	207
gray 80	#CCCCCC	204	204	204
gray 79	#C9C9C9	201	201	201
gray 78	#C7C7C7	199	199	199
gray 77	#C4C4C4	196	196	196
gray 76	#C2C2C2	194	194	194
gray 75	#BFBFBF	191	191	191
gray 74	#BDBDBD	189	189	189
gray 73	#BABABA	186	186	186
gray 72	#B8B8B8	184	184	184
gray 71	#B5B5B5	181	181	181
gray 70	#B3B3B3	179	179	179
gray 69	#B0B0B0	176	176	176
gray 68	#ADADAD	173	173	173
gray 67	#ABABAB	171	171	171
gray 66	#A8A8A8	168	168	168
gray 65	#A6A6A6	166	166	166
gray 64	#A3A3A3	163	163	163
gray 63	#A1A1A1	161	161	161
gray 62	#9E9E9E	158	158	158
gray 61	#9C9C9C	156	156	156
gray 60	#999999	153	153	153
gray 59	#969696	150	150	150
gray 58	#949494	148	148	148
gray 57	#919191	145	145	145
gray 56	#8F8F8F	143	143	143
gray 55	#8C8C8C	140	140	140
gray 54	#8A8A8A	138	138	138
gray 53	#878787	135	135	135
gray 52	#858585	133	133	133
gray 51	#828282	130	130	130

gray 50	#7F7F7F	127	127	127
gray 49	#7D7D7D	125	125	125
gray 48	#7A7A7A	122	122	122
gray 47	#787878	120	120	120
gray 46	#757575	117	117	117
gray 45	#737373	115	115	115
gray 44	#707070	112	112	112
gray 43	#6E6E6E	110	110	110
gray 42	#6B6B6B	107	107	107
dimgray (gray 42)	#696969	105	105	105
gray 40	#666666	102	102	102
gray 39	#636363	99	99	99
gray 38	#616161	97	97	97
gray 37	#5E5E5E	94	94	94
gray 36	#5C5C5C	92	92	92
gray 35	#595959	89	89	89
gray 34	#575757	87	87	87
gray 33	#545454	84	84	84
gray 32	#525252	82	82	82
gray 31	#4F4F4F	79	79	79
gray 30	#4D4D4D	77	77	77
gray 29	#4A4A4A	74	74	74
gray 28	#474747	71	71	71
gray 27	#454545	69	69	69
gray 26	#424242	66	66	66
gray 25	#404040	64	64	64
gray 24	#3D3D3D	61	61	61
gray 23	#3B3B3B	59	59	59
gray 22	#383838	56	56	56
gray 21	#363636	54	54	54
gray 20	#333333	51	51	51
gray 19	#303030	48	48	48
gray 18	#2E2E2E	46	46	46
gray 17	#2B2B2B	43	43	43
gray 16	#292929	41	41	41
gray 15	#262626	38	38	38
gray 14	#242424	36	36	36
gray 13	#212121	33	33	33
gray 12	#1F1F1F	31	31	31

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gray 11	#1C1C1C	28	28	28
gray 10	#1A1A1A	26	26	26
gray 9	#171717	23	23	23
gray 8	#141414	20	20	20
gray 7	#121212	18	18	18
gray 6	#0F0F0F	15	15	15
gray 5	#0D0D0D	13	13	13
gray 4	#0A0A0A	10	10	10
gray 3	#080808	8	8	8
gray 2	#050505	5	5	5
gray 1	#030303	3	3	3

12 Database

While many times you can use a static template to print a label you may want to print labels connected to a database which is a list of records containing one or more fields per record. The label program has two different database operations. The mailing list and categories deal with all your address labels. You edit the mailing list database and your changes automatically are reflected in all the category tables. The second operation deals with General database tables you create for any labels where you want to have them connected to a database. For example maybe each year you have to create a new set of customer folders.

Once you have created a database and done the data entry then you can easily create a batch of labels. There are many operations you can perform with databases but in a nutshell you create the database, do your data entry and create a linkage between the label template and the database fields.

The databases you create consist of a single table exactly like a spread sheet where the columns are fields. You can name the databases anything you like. You can go back and delete or rename databases. Always backup your database before deleting databases.

Once you have created a database you have to enter or import data into the database. If you have many records in your database you may use the sort or filter commands to only view a subset of the total records. You can go back at any time and modify a database by adding or removing records. This operation should only be done after you do a database backup operation as you will lose data when you remove records.

After you have entered the data you need to create a linkage between the database and a template by specifying which fields you want to include and where they go on the template.

12.1 What is a database

This section contains some basic database terminology and discusses some basic database concepts. You can find a wealth of information about databases on the Internet or at your local bookstore.

Data in any modern relational database is kept in different lists that are called TABLES. It is probably best to think of a TABLE as something like a telephone book in which the information it contains is organized into columns and rows. One column may contain the name, another column may contain the address, another column may contain the ZIP Code and yet another column may contain the telephone number. All the information in a given column must be the same type of information and must be consistent throughout the entire TABLE.

The columns in a TABLE are called FIELDS and the individual rows that hold the actual data are called RECORDS. Each RECORD has as many FIELDS as there are columns in the TABLE. Unlike a real telephone book that consists of just a few columns, a database table may have many more columns. A large TABLE may have over 100 columns, but most tables probably have fewer than a dozen columns.

The number of rows or RECORDS in a TABLE can be in the thousands or millions. Each RECORD holds all the basic information for the entity that the TABLE represents. The entity represented by a telephone book is simply a person. In every database each TABLE represents just one entity. Most databases have multiple TABLES and the importance is the many kinds of relationships that exist between the TABLES. Each entity is represented by a TABLE, and vice versa, each TABLE represents just one entity.

The information in a telephone book is organized or printed or sorted in only one way. In a computerized database, although the information in a table is stored in the order in which it is entered, a table can be sorted on any one column or on any combination of columns. In fact, a given table may be viewed simultaneously by different users in many different orders. The order in which you read the columns has nothing to do with the order in which you view a table. Nor is the ordering of the rows in a table significant.

The capability to sort the information by any column or combination of columns is one aspect that makes electronic databases powerful and useful. Even more significant is the ability to link one table to another.

Another significant modern database concept is that information should be stored in only one place in any database. Storing duplicate information is not allowed because having duplicates causes real headaches when it comes to updating and managing the information. If information were stored in multiple places, each place would have to be located and updated anytime that information changed in any one of those places. Even worse, if a human were required to keep track of the changes they would soon have inconsistent information because eventually they would fail to make all the updates uniform. By requiring that each piece of information be stored in only one place we not only simplify data management, but we also guarantee more consistency in the data. In any database the KEY FIELDS for a table must be unique between the records. Or another way of saying the same thing, each record in a table can be uniquely identified by its key field values. In a telephone book there would be two KEY FIELDS that would be the name and address. Using a name alone would not be sufficient to make a key field in a telephone book because there would likely be several people with the name John Smith. But if we include the address and the name together then that should single out which particular John Smith we want.

KEY FIELDS are important in a database for several reasons. The first reason is that they provide a natural sorting order for the data. A second reason is that key field values are used to quickly locate information. If you have a table with 16,000 records and you are looking for a particular record, you don't have to scan down through all 16,000 records until you find the one you are looking for.

You can simply start in the middle, (assuming the table is sorted) and ask if the record you are looking for is before or after the middle record you are looking at. When you get the answer to that question you can automatically eliminate 8,000 records to search and continue looking in either the first half or the last half of the table. Again you could pick the middle record and ask if it is before or after the one you are trying to find. After you get the answer to this second question you can eliminate another quarter of the table to search. So by asking just two questions you can eliminate 12,000 (= 8,000 + 4,000) of the 16,000 records.

This kind of searching is called a binary search in computer terms. The technique depends on having the data sorted so you can quickly ask and answer the before and after type of question. It can be proven mathematically that any record in a table with 16,000 records can be found by asking at most only 14 before/after type questions. If it takes less than a tenth of a second to answer each before/after type of question, we can understand how a given record among 16,000 records can be located in less than two seconds.

12.2 Navigator

In each dialog that contains a database grid you will see a special toolbar that looks similar to the following:



This toolbar is called a database navigator and its purpose is to help you navigate and manipulate various tables that are in a database. In fact, there is one such toolbar for each table in the database. In some cases not all of the buttons will appear or be active. When present however, the buttons perform the following functions.

Button	Name	Description
M	First	This button will take you to the very first record in any table. If you are already viewing the first record in the table then this button becomes grayed-out and is then inactive. This button is called the First Record button.

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		This button will move you backwards (up) in the corresponding table by one record.
	Previous	When you are on the very first record and can no longer move backward then this button
		becomes grayed-out and is then inactive. This button is called the Prior Record button.
		This button will move you forwards (down) in the corresponding table by one record.
	Next	When you are on the very last record and can no longer move forward then this button
		becomes grayed-out and is then inactive. This button is called the Next Record button.
		This button will take you to the very last record in the corresponding table. When you
►I	Last	are already at the very last record then this button becomes grayed-out and is then
10000000		inactive. This button is called the Last Record button.
		This button is used to add a new record to the corresponding table. After pressing this
	Add	button you will want to enter all the needed information for the record that you are
		adding to the table. After editing the new data fields you should press the Post Edit
		button described below to make your editing changes be permanently recorded in the
		corresponding table. This button is called the Insert Record button.
		This button is used to delete the currently selected record in a table. When you press this
	Delete	button you will be asked to confirm that you really want to permanently erase the entire
		record from the corresponding table. This button is called the Delete Record button. For
		some tables, you may also generate another error message informing you that you cannot
		delete the record because there are other detail records that depend on this record. If this
		happens, the database is just telling you it cannot delete the record without destroying
		other related database information and it will refuse to do so.
		This button is called the Edit Record button, but it is not really needed.
	Edit	To edit any field for the currently selected table, just click the mouse
		inside any edit box and you can start typing new information in the
		corresponding field.
		This button is called the Post Edit button and it is the most important button in the
	Post	navigator tool. When you edit any information in any field edit box, that information is
×		NOT stored back in the database until you press this Post Edit button to post the results.
		The act of posting a record means to store the information you see on the screen back in
		the corresponding table. Before you edit any field information this button will appear
		grayed-out and is then inactive. But after typing a new character in any field this button
		becomes active to remind you that you should post your results after you finish editing
		the information. You can edit the information in several fields and need only press this
		button when you are finished with the last field. You do not need to press this button
		after each field.
		This button is called the Cancel Edit button. Its purpose is to allow you to recover
	Cancel	information you have typed over when you decide to cancel your editing. You must
×		press this button before you press the Post Edit button. Otherwise, after posting your
		edits, this button is grayed-out and thus inactive. You will probably find that you rarely
		need to cancel editing.
		This button is called the Refresh button. Its purpose is to cause the entire grid of data to
~	Refresh	get refreshed or regenerated. You may rarely need to use this button.
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12.3 Backup (Export)

Databases should be saved on a regular basis using the backup utility provided with the database. In the following example you can change the directory and file name for your system.

From a dos cmd prompt

C:\a0>exp PostMaster/PostageStamp@XE file=c:\a0\t2.dmp

12.4 Restore (Import)

In case there is a problem with the databases such as accidentally deleting all the records you can restore the database using the restore utility provided with the database. For the Oracle Express edition you need to drop the PostMaster user and then import the database. Note that you have to login as system to drop the PostMaster user. In the following example please use the directory path and file name you used to do the export.

Login as system/admin From oracle sql console run the following commands one at a time. drop user postmaster cascade create user PostMaster identified by PostageStamp default tablespace USERS temporary tablespace temp; grant all privileges to PostMaster; grant unlimited tablespace to PostMaster;

From a dos cmd prompt C:\a0>imp system/admin@XE fromuser=postmaster touser=postmaster file=t2.dmp

12.5 Mailing List Master

The Mailing List is the central repository for all your address information. You manage all your address information from this menu command. You can add and delete address information (records) as time progresses using the database controls at bottom of the following figure (see the database primer).

You can enter the addresses using the form below and you can also import a comma separated value file if you already had the information in a spread sheet or another database application.

Tible: First	Name: Midd	e: Last Name: Office of Admissions	Yale Law School	P.O. Box 208329	Address 2:	New Haven	CT	21P Code: 06520-8329	USA	Tag	3
1.1		Office of Admissions	NY Univ School of I	P. O. Box 908		New York	NY	10276-0908	USA	T	
		Office of Admissions	Columbia Law Scho	435 West 116th Street, # 4	1	New York	NY	10027-7297	USA	T	
		Juris Doctor Admissions	Georgetown Univ. L	600 New Jersey Avenue, N		Washington	DC	20001-2075	USA	T	
		Office of Adminissions	UCLA School of Lar	71 Dodd Hall	Box 951445	Los Angeles	CA	90095-1445	USA	T	
		Admissions	USC Law	Univ. of Southern California	(Los Angeles	CA	90089-0074	USA	T	8
		Admissions Office	George Washington	700 20th Street, N.W.		Washington	DC	20052	USA	T	
		Office of Admissions	Loyola Law School	919 Albany Street		Los Angeles	CA	90015	USA	T	
											-

You can sort the addresses by clicking on any of the yellow column titles or you can use the Sorting menu command for more complex sort operations. Once you finish sorting the addresses you can use the small letter buttons (A-Z in the lower left of the above figure) to position the current selection cursor.

12.6 Mailing List Sub Tables

The main menu of the ALabel program contains an item named Database. There are two special submenu items under Database that are named Master Mailing List Data and Categories (Mailing SubLists).

The Master Mailing List should be thought of as a master contact list. This is a database table that contains a list of persons/companies that can be used to print either address labels or envelopes. This table is named the Master Mailing List because it is the only table that can be edited to change a person's name or detail address information.

Categories are the same as mailing sublists. Categories exist because there may be times when you wish to work with the same group of persons or companies, but these may be categorized as being special subgroups that are extracted from the Master Mailing List.

As an example of needing or using a special mailing sublist, suppose your company has clients in both the USA and in other countries. Suppose further that you wish to make a different but special mailing to all of your foreign clients. If you make such a mailing often, you would find it best to create a Category that you would name ForeignClients. In that Category you would select from the Master Mailing List only those clients with foreign addresses. Your ForeignClients category would be created based on the Country field NOT being USA. You could also make another Category named DomesticClients where everyone in that list would be extracted from the Master Mailing List where their Country is USA.

In yet another circumstance, suppose you have a large family and extended family and assume that once a year your family has a large family reunion and you are in charge of mailing out invitations for the family reunion. Now it might be useful to create a special mailing Category that might be called FamilyReunion. The persons in your FamilyReunion list might be chosen on the basis of their last names. Most such lists would contain perhaps a dozen or more different last names, with each distinct last name being associated with many persons with that last name.

You can create as many mailing Categories as you wish, and you can give the Categories that you create any names that you wish. The only requirement is that Category names need to be distinct from each other and Category names cannot contain spaces within the name. We suggest you write your Category names using what is called CamelCase as in the examples of EuropeanClients and DomesticClients and FamilyReunion.

A technical point to understand about Categories is that it is not a good idea to have the same data in several lists, where the data items can be changed within each list. Suppose a person changes their street address because they move. Further, suppose that same

person appears in five distinct Categories that you have created. You don't want to have to search for that person in five Categories and change their address five times. It is for this reason that the Master Mailing List exists. The Master Mailing List is the only list in which you edit the actual detail address and name and other information.

A second technical point is that when you add a person to any Category, the detail information for that person is not really contained in the Category. Only a reference to that person in the Master Mailing List is stored in any Category. This means that if you change a person's address in the Master Mailing List, that one change will automatically appear in all Categories that the person belongs to. This happens automatically even if the person belongs to ten different Categories. You should never want or need to change an address or any detail information by editing within a Category. You can only edit actual information within the Master Mailing List. You can add or delete a whole person or persons within any Category, but that is the only kind of editing allowed within a Category.

Both Categories and the Master Mailing List can be sorted in many different ways and the list entries can be filtered and tagged. Sorting, filtering, and tagging are distinct activities that exist for reasons that are explained in another help topic.

12.7 General Tables

With the General Tables command you get the ability to create your own tables and then create a mapping to a label template. The real nice part about the General Tables is that you can map any field to any field(s) on a template no matter where the field is. This may not sound like much but I think it is one of the most important parts of the program. Let us take some

12.8 Filtering and Sorting

When working with both the Master Mailing List and any mailing list Category, you can perform special operations that allow you to see and work with the data in meaningful ways.

The first of these ways is called sorting. There is a Sorting menu available when you have the Master Mailing List open.

📟 Mailing	List Da	atabase		
File Edit C	Options	Sorting	Tagging	
List View R	lecord V	Sort b	y Last Name	
Title:	First I	Sort b	y Company	ame:
R TI Al	ustum homas I	Sort b Sort b Sort b Sort b	by City by State by ZIP Code by Country ort (Natural Order)	nente
B	rnold & J obert ernard	 All So All So 	rts are Ascending rts are Descending	
	harles	Multip	le Columns Sorting	

Using the Sorting menu items you can easily sort by Last Name, or by Company name, or by City, or State, or ZIP Code or Country. You can choose to make the sort order either Ascending or Descending.

A special sort function is to choose the last menu item Multiple Columns Sorting. When you make this menu choice you will bring up the following dialog.

📟 Multiple Column S	orting
Select Columns fror Right list in the desi You do not ha	n the Left list and move them into the red Sort Order, from Top to Bottom. ve to use all of the Column Items.
Column Item:	Sorting Order:
Last Name Company Name City State ZIP Code Country	> < < All
Perform the Sort	Cancel Help

Using the above dialog, you can choose to sort on more than one column by moving the Column Items from the list on the left to the list on the right. You can thus select which columns are involved and you can choose the order involving multiple columns.

For example, suppose you select the columns ZIP Code and Last Name in the order shown below.

📟 Multiple Column S	orting							
Select Columns from the Left list and move them into the Right list in the desired Sort Order, from Top to Bottom. You do not have to use all of the Column Items.								
Column Item:	Sorting Order:							
Company Name City State Country	> ZIP Code Last Name < < All							
Perform the Sort	Cancel Help							

In the above dialog the data would first be sorted by ZIP Codes. Next, the data would be sorted by Last Name within all sets of ZIP Codes that are all the same ZIP Code.

Note that the default sort order is No Sort (Natural Order). When No Sort is selected, you can click on the control in the lower left to choose the first letter of the Last Name. This will cause the data to be sorted by Last Name and the cursor will move to the first entry in the list that begins with that letter.

AB	С	D	E	F	G	н	T	J	К	L	м
NO	Р	Q	R	S	T	U	۷	W	X	Y	Ζ
Dou or C	uble C Compa	Click a any o	a Coli r City	umn or S	Head tate (ding t or Co	o So untry	rt by	Last	Nam	e

In practice, we rarely pull down the Sorting menu to perform a sort. The reason is that you can double click any one of the yellow column headers

	Last Name:	Company:		City:	State:		Country:	[
--	------------	----------	--	-------	--------	--	----------	---

to cause sorting to take place on the column whose header you double click. This type of quick sorting only works for the Last Name, Company, City, State and Country columns. You can also double click the ZIP Code column to cause sorting by ZIP Code. However, the columns shown above will not only sort on the column you double click, after that you can click one of the alphabetic letters to cause the program to find the entry that begins with the letter that you click.

For example, if you were to double click on the yellow City column header, the program would automatically sort the data by City. But more than that is true. If you then clicked

the alphabetic letter [5] the program would automatically move the database cursor to the first city whose name begins with the letter S. This might be San Francisco if you had used that city name. As long as the City sort is selected, you can click any alphabetic letter to move the database cursor to the first city name that starts with the alphabetic letter that you clicked.

What works for Cities would also work for Countries or States or Companies. Thus the alphabetic letters actually have multiple uses. The alphabetic letters can be used to quickly find entries after you sort on one of the name columns. You can sort by ZIP Code but of course ZIP Codes only contain numbers so the alphabetic letters don't work with ZIP Codes.

If you click an alphabetic letter and the database cursor does not move, it may just be that you don't have any entry that begins with the letter that you clicked. In this case the database cursor will just remain on the currently selected row.

The purpose of Tagging is to select certain entries for further operations. The last column in the database is the Tag column. When an entry is tagged the Tag column will show the single letter T. When an entry is NOT tagged then nothing shows in the Tag column except a blank space that you really can't see.

The buttons that appear in the lower right corner are associated with Tagging.

Reverse the Current Tag				
Filter	r Tagging		Tagged C	ount

The easiest way to tag a single entry is to simply move the database cursor to select the row you want to tag by clicking anywhere on that row and then click the button to Reverse the Current Tag. If the tag entry was blank before you clicked the Reverse button, then the tag will change to the letter T. If the tag column was already a T and then you click the Reverse button, the program will drop the T letter and make the tag blank.

When you click the Reverse the Current Tag button the program not only reverses the tag for that row, it will move the database cursor down to the next row. So if you want tag a series of consecutive rows you can easily do so by continuing to click the Reverse the Current Tag button. In fact, if you are on the last entry in the entire table then the program will move the cursor up to the first row where you may continue to tag entries.

We say an entry is tagged when the Tag column has the letter T. Otherwise the entry is not tagged. At any time you can click the button with the caption Tagged Count to see how many entries are currently tagged. When you do this you will see a message like the following:



Tags have no inherit meaning. Tagged entries are used to perform a subsequent operation such as printing labels only for the tagged entries or using only the tagged entries to create a Category or to delete only the tagged entries. Thus you can think of tagging as meaning only that the tagged rows have been selected for some future operation.

There is a Tagging menu item that appears as follows:

Tagging	
Revers	se the Selected Entry Tag
Revers	se All Tags
Tag Al	I Entries
Untag	All Entries
Tag By	/ Filtering
Get th	e Tagged Count

When you have a large list then it is convenient to use these menu items to quickly tag all entries, or tag no entries or to reverse all the tags.

Finally, you can use a menu item or use the ______ button to bring up a dialog box that appears similar to:

📟 Filter Tagging		
Use a % character for a wildcar A % symbol, if used,	rd character. Otherwise, if no % is used, an e , should only appear as the first or last charac	xact match will be assumed. ster in any filter.
Last Name Filter:	Company Filter:	City Filter:
Apply the Last Name Filter	Apply the Company Name Filter	Apply the City Filter
State Filter:	ZIP Code Filter:	Country Filter:
Apply the State Filter	Apply the ZIP Code Filter	Apply the Country Filter
	All Filters Are Case Sensitive	
Perform t	he Tagging Cancel Hel	q

Using the above dialog you can perform sophisticated tagging that involves multiple columns of data.

As a simple example, let's say you want to tag all persons whose last name begins with the letter J. To do that you would select the following associated with the Last Name Filter.

Last Name Filter:	
J%	
✓ Apply the Last Name	Filter

When using Filters, you can apply the % symbol as a wild card character that should only appear at the start or end of a data item. The % symbol gets interpreted differently depending on whether it appears before a string or after a string.

In the above edit box the interpretation of \mathbf{J} % will match any Last Name that begins with the letter \mathbf{J} .

When the % symbol appears at the start of a string as in the case of %S shown below as

City Filter:	
%S	
Apply the City Filter	

the interpretation means the program will match any City name that has the letter S anywhere in the city name.

Taken together the two filters

Last Name Filter:		City Filter:
J%		%S
✓ Apply the Last Name Filter	and	Apply the City Filter

would tag all the entries whose last name begins with the letter J and that contain an S character anywhere in the City name.

You don't have to use the special symbol % as a wildcard. When no wildcard % character is used in any filter then the program will search for an exact match only for that filter. For example, the two filters that appear as:

Last Name Filter:		City Filter:
Kennedy		San%
🔽 Apply the Last Name Filter	and	Apply the City Filter

would only find those entries that have exactly the last name Kennedy that would appear in any city that starts with the name San. In this case the cities might include San Francisco, San Pedro, or Santa Rosa or Santa Monica.

Also be aware that the control that appears as:

	All	Filters	Are	Case	Sensitive	
--	-----	---------	-----	------	-----------	--

can be checked or not and this can have an effect on what gets tagged or not. Probably most searches or tagging associated with names would leave this checkbox unchecked that is its default.

As yet another example of filter tagging, the following filter

ZIP Code Filter:	
90405%	
Apply the ZIP Code Filter	

would tag all entries that begin with 90405 in their ZIP code.

Using the above dialog box it is easy to select data for tagging. You should note that there is a checkbox for using or not using each filter. If you don't check any filter item to be used and you try to perform a filtering operation then you may generate the following error message:



When this occurs, just go back and reopen the Filter Tagging dialog and check those filters that you want to apply.

In another Help topic we mentioned creating a Category named ForeignClients. To demonstrate how filter tagging can help you create that Category we would first select the Database menu and choose Master Mailing List Data. Once the data list appears we

would click the	Filter Tagging	button and setup the si	ngle filter:
		Country Filter:	
		USA	

🗸 🗛	pply	the	Country	Filter
-----	------	-----	---------	--------

After performing this filter we should have a Master Mailing list that has tagged only those entries whose County is the USA because we did not use any wildcard in the above filter. This means we should now have tagged all and only those entries whose Country is exactly the USA. Next, we would select the Tagging menu item that says Reverse All Tags. After this, our Master Mailing list should have tagged all the non-USA entries and we are assuming those are all the ForeignClients.

Next, we would close the Master Mailing List table. Again we would select the Database menu and this time we would select Categories (Mailing SubLists).

This would bring up a dialog box that would look similar to:

📟 Mailing List Categories	
Category Name: FirstCategory	
	Use the Selected Category
	Create A New Category
	Rename the Selected Category
K < F F - C	1 of 1
Close	Help

📟 Create A New Catetory
Enter the New Category Name: ForeignClients
Creation Option: Include the Entire Master Mailing List Include only Tagged Master Mailing List Entries Start With An Empty Category Table
Create The Category Cancel Help

Type in the New Category Name as ForeignClients and be sure to select the radio button that says Include only Tagged Master Mailing List Entries. When you click the button

Create The Category you should then see a new Category table that shows all your foreign clients. Whenever you create a new Category, the program will remove any blank

characters in the Category name. Thus you should not expect to use spaces in Category names.

Under the Options menu of the Mailing List window is a menu item



that says Filtering Resets All Tags.

The meaning of this Option has to do with how tagging works when you perform two or more filter operations in a row. When this option is checked, which is its default, then whenever you perform Filter Tagging the program will first turn off all tags for the entire list, and then it will apply the current filter tag operation. When this option is NOT checked, it means that when you perform more than one filter operation in succession then each next filter operation will be additive in that it will add to the entries that are already tagged.

13 Summary

This document has shown how the label software can generate a wide variety of labels used in many different ways. In the end the label helps people quickly provide information about the object and maybe where the object is going next. Index

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