
NETWORK SOFTWARE DOCUMENTATION



5760-005N Rev Q

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Section 1: Overview

This document covers the normal operation of the Ink Jet Network Software, and assumes the reader has a working knowledge of the ink jet controller user interface. All examples shown assume that the software was installed to **c:\Program Files\InkJet**. The Network Software communicates with the database via an ODBC (Open Database Connectivity).

Who should use this software?

Consider using the Ink Jet Network Software if:

- You have a large number of print messages (greater than 100).
- You have multiple ink jet controllers across several packaging lines.
- You currently use, or plan to use, a database to manage your print data.

With the Ink Jet Network Software you can:

- Monitor and control multiple ink jet controllers across an Ethernet network.
- Manage and store a large number of print messages.
- Print data retrieved from a database, including:
 - Bar codes
 - Expiration dates
 - Text
 - Logos
- Edit, add and delete database records

The Ink Jet Network Software does **not** do database management. Ink Jet Network Software cannot be used to create or modify a database or data table. To manage your database use Microsoft® Access or a database management program that can read Access files.

System Requirements:

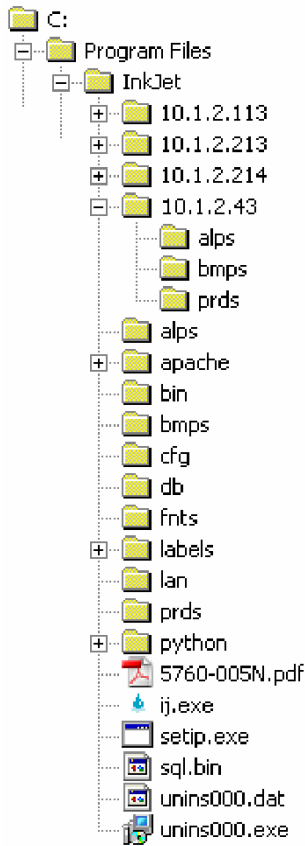
Operating system: Windows 2000, XP, Windows Vista

Hard disk: 10 MB of free space

Software Installation

Put the program CD in your CD-ROM drive. An installation wizard should automatically start, giving step by step instructions for installing the software. If the installation wizard does not start, open your CD-ROM drive and double-click the **full.exe** icon to start it.

File Structure:



When installed in the default location, the Network Software and its associated files and folders are put in:
c:\Program Files\InkJet (see illustration at left).

File Storage:

Folder	Files
alps	Label applicator data files
bmps	Logo files
prds	Print message files
fnts	Print fonts
cfg	Network Software configuration files
lan	System language files (English, Spanish, etc.)
db	Print database files
10.1.2.113	The folder name is the IP address of a corresponding ink jet controller. These folders store the print message, logo, label applicator, and system configuration files for the individual controllers on the network. They are created as controllers are added to the network.
10.1.2.213	
10.1.2.214	
10.1.2.43	
etc.	5760-005N.pdf is the PDF file for this manual. ij.exe is the Network Software program.

File Storage Options

Print message, logo, and label applicator files can be stored in common folders accessible by all ink jet controllers on the network, or in the individual controller folders accessible only by a folder's corresponding controller. Where the files are stored is determined by the **Common Folders** option on the **Controller** menu.

Save and Delete Operations:

Files saved or deleted at the PC using Network Software are saved or deleted on the controller and in the controller's corresponding folder on the PC. Files saved or deleted at the controller are saved or deleted at the controller only; the PC files are not affected.

Outline of the IJ3000 Software Setup

Set up each controller.

- Complete the physical installation of the IJ3000 controllers, print heads, IDS3000 and/or the CIDS3000 ink systems per the **System Operations Manual** (5760-107 or 5760-111).
- Perform the system setup (print heads, encoder, task options, and serial ports) for each controller per the **IJ3000 Controller Manual** (5760-121). The Task Options for task two should be set such that the "Group task 2 with task 1" option is activated (this applies only if there are two interface cards in the IJ3000 controller). Do not enable or set any system passwords at this time. If passwords are to be used, they should be set through the Network Software after the installation of all controllers and the Network Software is complete.
- Complete the Network Setup per the **IJ3000 Controller Manual** (5760-121).
 - Set the IP address for each controller. The address should be unique, and something other than the default address of 10.1.2.3.
 - Set the network message list URL to: **http://X.X.X.X/cgi-bin/getprd.py?key=** where **X.X.X.X** is the IP address of the host PC. (URL stands for Uniform Resource Locator, a standard way of locating objects on the internet. It's an abbreviated way of saying "internet address".)

A filter can be used to limit the print messages, or keys, shown on a controller to those meant just for that controller. To apply a filter, change the URL to:

http://X.X.X.X/cgi-bin/getprd.py?filter=ZZZ&key=

where **ZZZ** is the first three letters (or four Zs for four letters, five Zs for five letters, etc.) of the template names meant for a particular controller. This assumes that all templates meant for that particular controller begin with the same three (or four or five, etc.) letters. For example, the templates for "packaging line 60" might all begin with "PKR60".

A large number of keys can slow the response to a controller's request for a list of print messages. To decrease the response times, add a "split" argument to the URL:

http://X.X.X.X/cgi-bin/getprd.py?split=25&key=

In the URL above, the split argument divides the message list into groups of 25 messages. Use the "previous" and "next" items added to the beginning and end of each group, respectively, to go from group to group.

When using **Common Folders**, the URL will be

http://X.X.X.X/cgi-bin/getprd.py?static=1&key=

- If using an older 5760-900 CPU Board, use:
http://X.X.X.X/cgi-bin/getprd.py?cpu=900&key=
- If using a label printer, set the Automatic Label Printer URL to:
http://X.X.X.X/cgi-bin/getalp.py?key=

Or, if using Common Folders, to:

http://X.X.X.X/cgi-bin/alp.py?static=1&key=

Set the IP address of the host PC.

Install the Ink Jet Network Software on the host PC.

Set up Ink Jet Network Software.

- Add Lines (applicable only if there is more than one controller on a production line).
- Add IJ3000 Controllers.
- Set the password for each controller and enable password protection, if applicable.



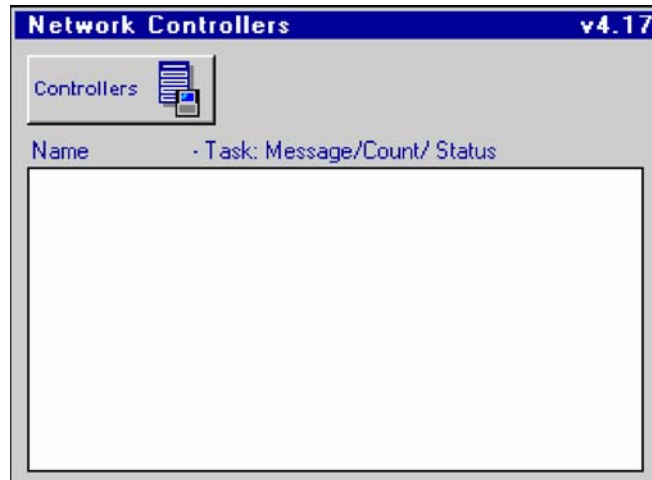
NOTE: Controller passwords should be set, and password protection should be enabled, from the PC through the Network Software. Password operations should never be done at the controller when using Network Software:

- Passwords set at the controller are not transmitted to the Network Software. Without the password, the Network Software cannot access the controller.
 - When password protection is enabled at the controller, the Network Software is not made aware of it, it does not send the password when attempting to access the controller, and access is denied.
-
- Set up message templates.
 - Create a new template.
 - Create keys for the template.
 - Edit the template.
 - Repeat as necessary.

Section 2: Menu Options

Main Screen

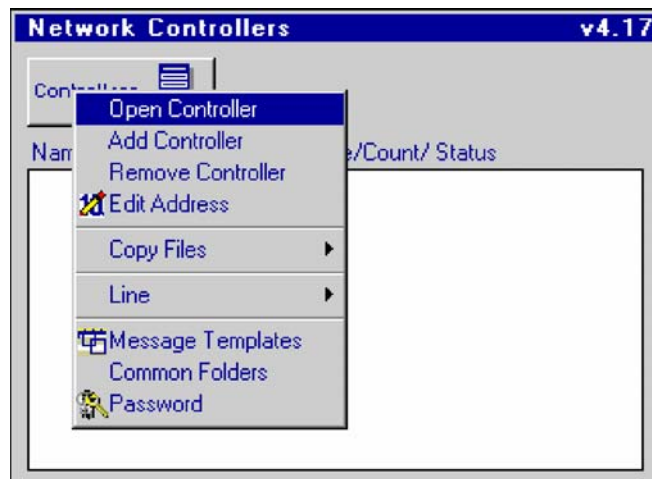
This is the Network Software's main screen. The Name or IP Address and a status summary of all ink jet controllers on the network are listed in the large window.



Main Menu

Click the **Controllers** button to display the main menu. From the main menu, the user can:

- Open (gain access) to a controller.
- Add/remove controllers to/ from the network.
- Edit a controller's Name or IP Address.
- Copy files to/from a controller. (Used to synchronize files between the PC and controller; this does not copy individual files.)
- Add/remove a Line. (Used when there are multiple ink jet controllers on a production line.)
- Create new, and edit existing, Message Templates and Key Data.
- Set print message storage location.
- Enable/disable password protection; set the password. (Used for controlling access to the Networking Software. Controller access is covered elsewhere.)
- Use the **Esc** key to exit main menu.



Menu - Open Controller

To open (gain access to) a controller on the network, select the controller, open the **Controllers** menu, and click **Open Controller**. After a brief delay, the Home Screen of the controller being accessed is displayed. (Keyboard shortcut: Select the controller and press **Enter**.)



NOTE: When controller settings are changed, or print messages created or edited at the physical controller, the Network Software needs to be synchronized with the controller. To do this, open the **Controllers** menu and select **Copy Files, Controller to PC**. (See “*Menu - Copy Files, Controller to PC*” on page 9 for more information.)

Using screens identical to those on the controller, the Home Screen grants access to all of the controller's controls and functions, with a few exceptions:

On the Home Screen

- Task **print/pause** button(s): The icon displayed on the button changes as print is paused or resumed at the controller, but the button does nothing when clicked. Print cannot be paused or resumed from the PC.
- Printing a message: Loading a message to print loads the message on the open controller only. This matters only if the controller is part of a "Line" grouping.
- Print Menu: There is no **Purge** button. Print heads cannot be purged from the PC.
- Print count values cannot be adjusted.
- With the exception of "data" type variable fields, variable fields cannot be edited. (For a complete description of all variable field types, see Adding a Variable Field in Section 6 of the Controller Operations Manual, part number 5760-121.)

On the Edit Screen

- Message Menu: There is no **Test Print** button.
- A print message that is created or edited on the PC and saved is saved on the PC's hard drive, and also on the controller itself. A message created or edited on the controller and saved is saved on the controller only.

Other

- Setting or changing the controller's IP address cannot be done from the Network Screen (opened from the **Control Panels** menu). (See “**Error! Reference source not found.**” on page **Error! Bookmark not defined.** or “*Menu - Edit Address*” on page 9 for instructions on setting or changing a controller's IP address.)
- The **Restore default configuration**, **Test touch screen**, and **Calibrate touch screen** utilities are not available on the Utilities Screen (opened from the Control Panels menu).

To close (halt access to) the controller and return to the Network Software's main screen, press the **Escape** key from the controller's Home Screen.

For complete information on operating a controller, see the **Controller Operations Manual** (part number 5760-121).

Menu - Add Controller

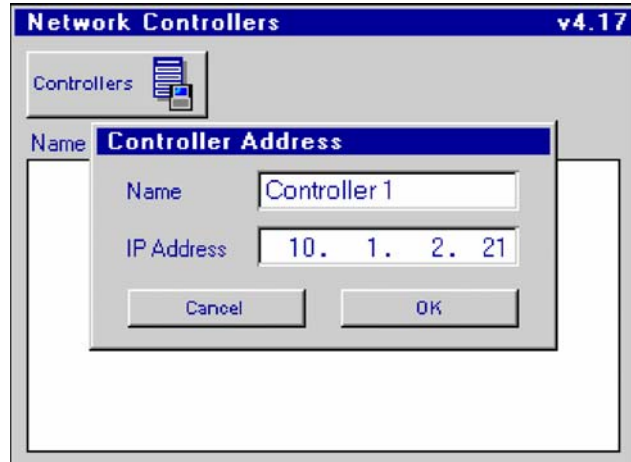
To add an ink jet controller to the network, click **Add Controller**. When prompted, enter a name for the controller and the controller's IP address, and click **OK**. The new controller is added to the bottom of the controller list. Using a controller name is optional. If the **Name** box is left blank, the controller's IP address is used as its name.

The controller list shows the controller's **Name**, its **Task** numbers, the name of the **Message** currently being printed on each task, the overall product **Count** for each task, and the current printing **Status**: Printing, Paused, or Stopped.



NOTE: The controller needs to initially be in "open access" (set at the controller) to be added to the networking software. If a controller's access needs to be restricted after it is added to the network, it should be done from within the networking software.

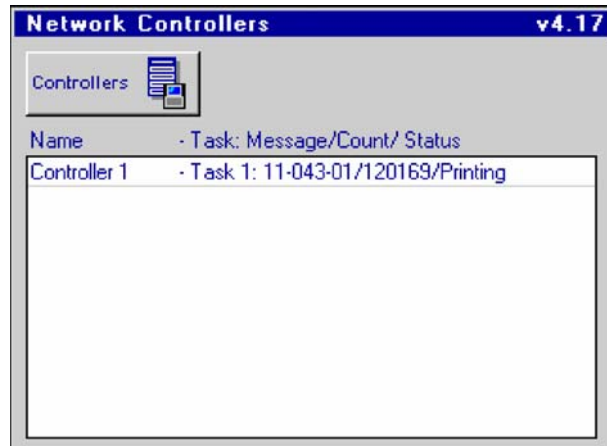
Open the controller, and when the Home Screen is displayed, select **Show Menu\Control Panel\User Access**.



When a controller is added to the network, the Network Software creates a new folder on the PC's hard drive at:

c:\Program Files\InkJet\x.x.x.x

where x.x.x.x is the controller's IP address. The controller's configuration (.cfg) files are copied into the folder, as are the print message (.prd), logo (.bmp) and label (.alp) files. If **Common Folders** is selected, the print message, log and label files are stored in common folders accessible to all controllers on the network instead of the individual controller's folder. (See "Menu - Common Folders" on page 12.)



Menu - Remove Controller

To remove a controller from the network, select the controller, open the **Controllers** menu and click **Remove Controller**. When removing a controller, a dialog box gives the option of deleting the controller's corresponding folder, and all of the data it contains, from the PC's hard drive. When asked, click **Yes** to delete the folder, or **No** to retain it. Any controller files that may be in the common folders are not deleted.

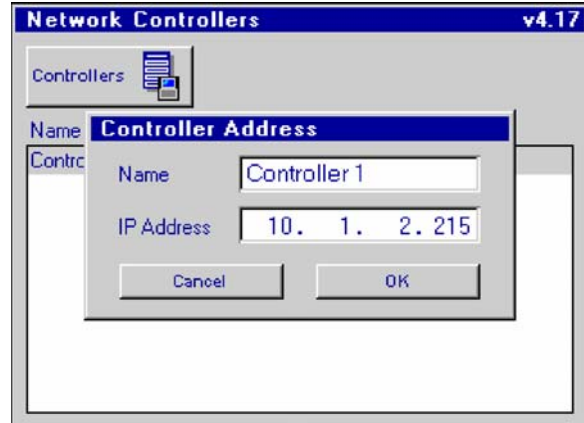
Menu - Edit Address

To change a controller's name or IP address, select the controller, open the **Controllers** menu, and click **Edit Address**. A **Controller Address** dialog box is displayed.

Change the controller's name and/or IP address as desired and click **OK**.

If the **Name** box is left blank, the controller's IP address is used as its name.

Controller name changes take effect almost instantly. IP address changes take about 15 seconds, as the controller must reboot for the change to take effect. (Reboot takes place automatically.)



Menu - Copy Files, Controller to PC

To back up a controller's print message (.prd), logo (.bmp), label (.alp) and system configuration (.cfg) files to the PC, select the controller, open the **Controllers** menu, and click **Copy Files, Controller to PC**. Configuration files are always stored in the controller's corresponding folder on the hard drive (c:\Program Files\InkJet\x.x.x.x, where x.x.x.x is the controller's IP address). Where the controller's print message, logo, and label files are stored is determined by the **Common Folders** menu item (see "Menu - Common Folders" on page 12). When **Common Folders** is checked, the files are stored in the common folders; when not checked, they are stored in the controller's folder.

As the Network Software has no knowledge of changes made at the controller, use **Copy Files, Controller to PC** to synchronize the controller and PC after print messages are created or edited, or any system settings are changed at the controller.



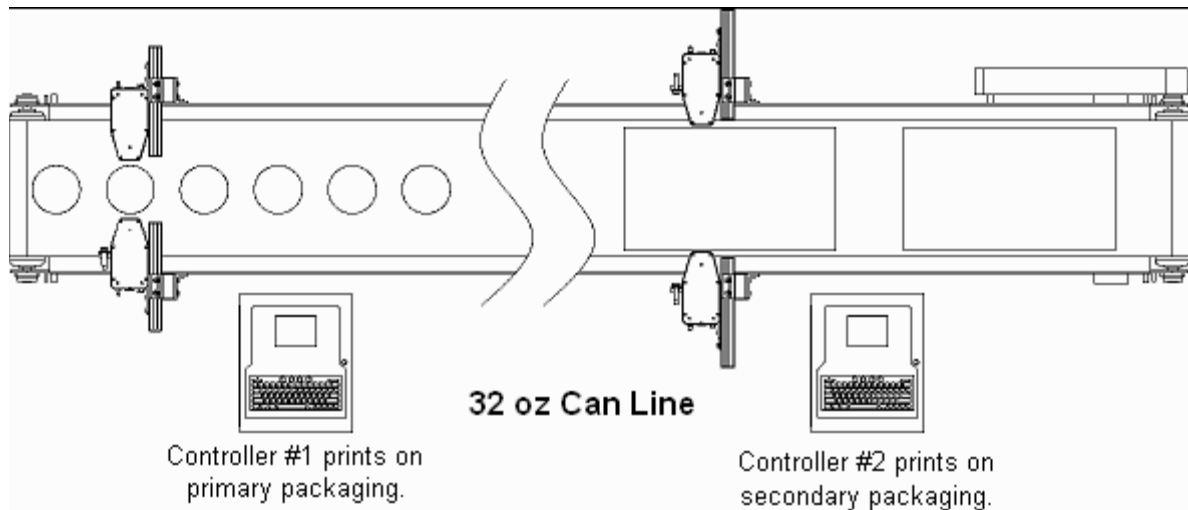
NOTE: Print messages deleted at the controller are not deleted from the PC, even when the PC and controller are synchronized. The corresponding PC files will have to be deleted at the PC by opening the controller in the Network Software, clicking the **Messages** button on the Home Screen and deleting the message from the Messages Dialog.

Menu - Copy Files, PC to Controller

To restore previously backed up print message, logo, label and system configuration files to a controller, select the controller, open the **Controllers** menu and click **Copy Files, PC to Controller**. The configuration files are uploaded from the controller's folder on the hard drive (c:\Program Files\InkJet\x.x.x.x, where x.x.x.x is the controller's IP address); the **Common Folders** menu item (see below) determines the source of the print message, logo, and files that are uploaded. When **Common Folders** is checked, the files are uploaded from the common folders; when not checked, they are uploaded from the controller's folder.

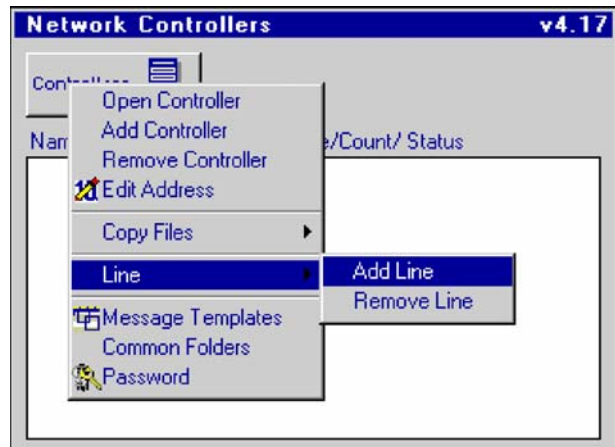
Menu - Line, Add Line

The Network Software has a feature whereby multiple controllers on a single production line can be grouped together. Grouping controllers in a "line" simplifies product changeover by making it possible to load all the print messages associated with a product into their respective controllers in a single operation, and from any of the controllers on that line. Possible applications include four-sided coding (printing is done on two sides of a carton by one controller, the carton is turned, and a second controller prints on the other two sides), and printing on the primary and secondary packaging of a product. An example of a "line" is illustrated below.



NOTE: When using Lines, add the lines to the network first, and then add the controllers. Controllers already on the network cannot be added to newly added lines.

To create a new line grouping, click **Line, Add Line**. When prompted, enter a name for the line (for example, "32 oz Cans") and click **OK**.

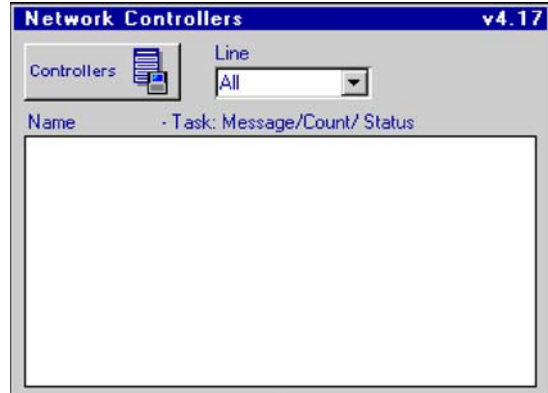


When the first line is created, a **Combo Box** control appears at the top center of the Network Controllers window. Open the combo box and you will see two items: "All" (the current selection) and the name of the line just created. Click on the name of the line just created.

Add controllers to the line as described in “ **Error! Reference source not found.**” on page **Error! Bookmark not defined.**

As additional lines are created, their names are added to the bottom of the combo box list.

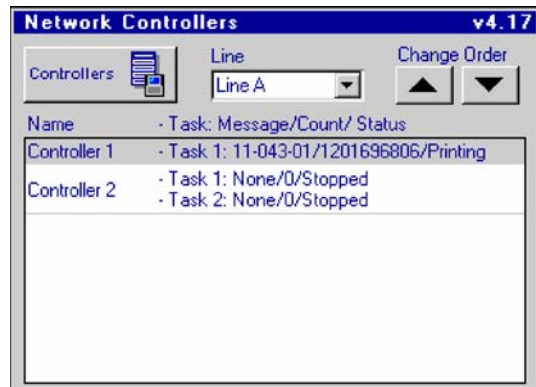
Use the combo box to select which controllers are displayed on the controller list. Select an individual line to display the controllers on that line; select "All" to display all controllers across all lines, including those not associated with any line.



NOTE: When controllers are added to the network, they are added to the line whose name is displayed in the **Line** combo box. A controller that is not a part of any line should be added to "All".

When an individual line is selected, **Up/ Down Arrow** buttons appear in the upper right corner of the Network Controllers window. Use these buttons to change the order in which the controllers on the selected line are listed:

- Select a controller.
- Click the **Up Arrow** button to move the selected controller up one position on the list.
- Click the **Down Arrow** button to move the selected controller down one position on the list.



NOTE: The controller order may be changed at any time prior to templates being created. Once templates are created, the order should be considered locked, as the controller order determines the controller-template relationship.

Menu - Line, Remove Line

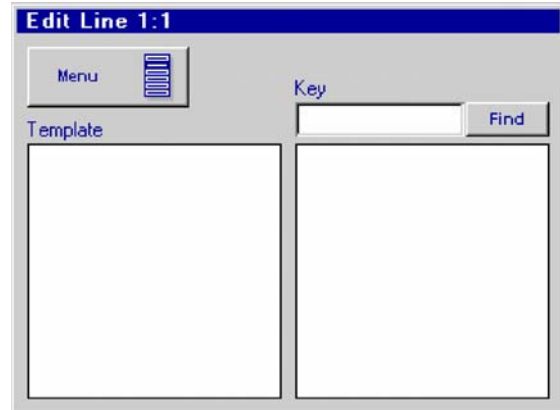
To remove a line, select the line, open the **Controllers** menu and click **Line, Remove Line**. When the last line is removed, the **Line** combo box disappears.

Controllers should be removed from a line before the line is removed. Any controllers remaining on a line when the line is removed are moved to "All", but the operation of these controllers through the Network Software is not guaranteed.

Menu - Message Templates

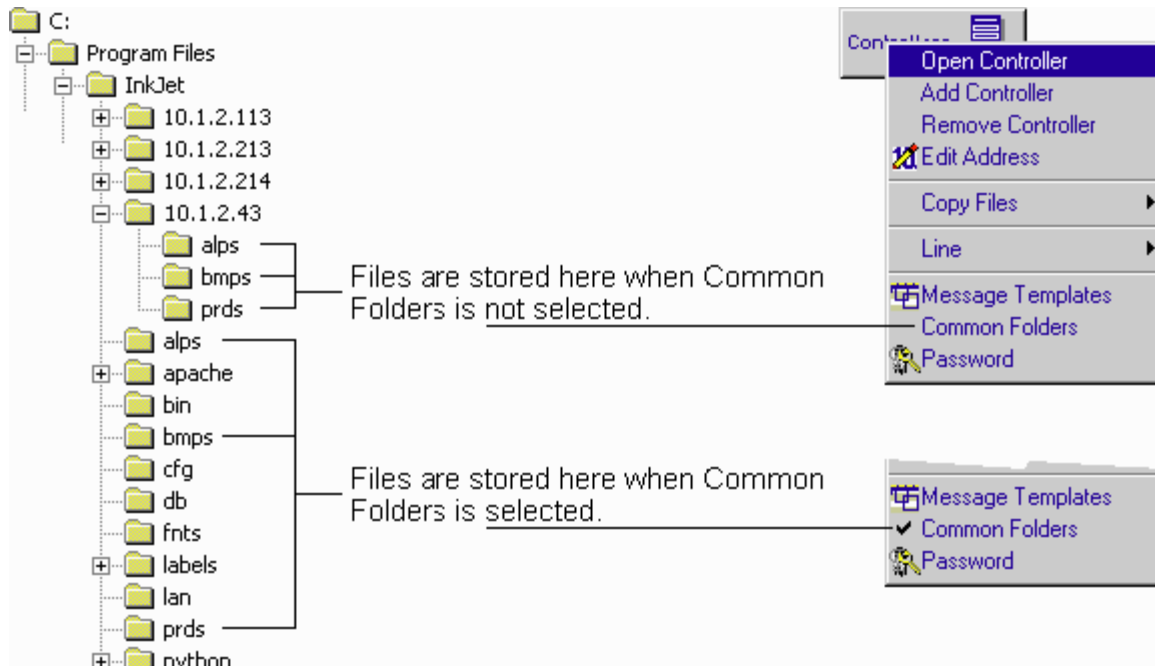
To create new, or edit existing, templates and keys, select the target controller, open the **Controllers** menu, and click **Message Templates**. The Message Template Screen is displayed.

See **Section 3: Message Templates** for a complete description of templates and keys.



Menu - Common Folders

Common Folders determines where the network controller's print message (.prd), logo (.bmp) and label applicator (.alp) files are stored. When **Common Folders** is selected, the files are stored in common folders accessible by all controllers on the network. When not selected, the files from each controller are stored in their corresponding folder, and accessible only by that controller.



Clicking on **Common Folders** toggles it between selected and not selected. A checkmark to left indicates that **Common Folders** is selected.

Menu - Password

To restrict access to the Network Software and its functions, the **Controllers** menu may be password protected; that is, a password must be entered to open the menu. This password is separate from those that may be used to protect the individual controllers on the network.

To password protect the **Controllers** menu, open the menu and click **Password**. When the User Access dialog box is displayed, click the **Restricted access** radio button.

Click the **Change Password** button to change the password. The factory set default password is **Manager**. Passwords are case sensitive ("Manager" and "manager" are different passwords).



When all changes are made, click the **OK** button.

Section 3: Message Templates

(See “*Error! Reference source not found.*” on page *Error! Bookmark not defined.* for the flow diagram.)

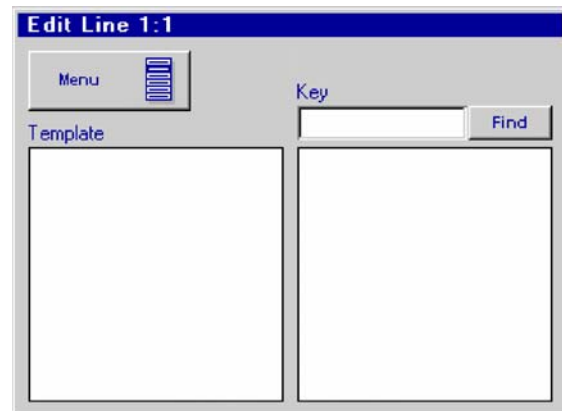
Overview

For the following discussion, a Template refers to a print message that can retrieve data from a database to supply the text for a variable field, or the data for a bar code or label applicator field, or the file name for a logo, contained within that template.

A key - a name or number, often a UPC - identifies the record in the database from which data is retrieved for printing on a specific product. While many keys may use a single template, a single key may be assigned to only one template, and no two keys may be identical, no matter which template they are assigned to. Key length is governed by the database; the default maximum length is 11 characters.

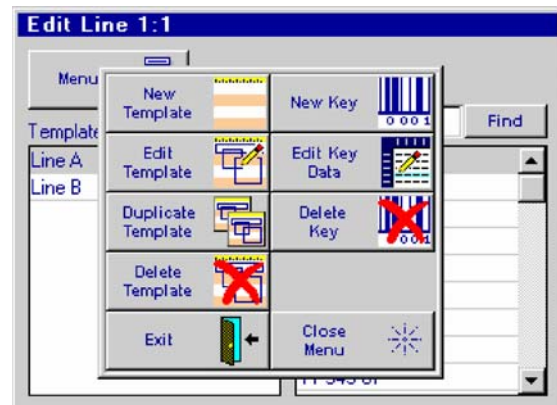
Message Template Screen

To create new, or edit existing, templates and keys, select the target controller, open the **Controllers** menu, and click **Message Templates**. The Message Template Screen is displayed.



The Message Template Screen contains:

1. A **Menu** which has buttons for all template and key functions
2. A **Template** window which lists all current templates
3. A **Key** window which lists all of the keys that use the currently selected template
4. A **Find** box and button for quickly locating a particular key.



Creating a New Template

1. To create a new template, open the menu and click on the **New Template** button. When prompted, enter a name for the template and click **OK**. A blank template is created and its name is added to the template list in alphabetical order.
2. A key needs to be created before print fields can be added to the new template. Select the template just created from the template list, open the menu, and click on the **New Key** button. The New Key dialog box is displayed.



Click the **Key–Data** box and type in the key. The key is a name or number (often a UPC) used to uniquely identify the data (Manufacturer, Company, Description, Bar Code, etc.) in the rest of the key's data boxes, and to call up the data for printing later. The key field cannot be left blank.

If known, enter the Manufacturer, Company, Bar Code, etc., data as needed by the template. For example, if the template is to have a variable field for printing a company name, type that name in the **Company–Data** box. If there is a bar code field, enter the bar code data in the **Bar Code–Data** box. Information that is not known may be entered later by editing the key. (Keyboard shortcut: to edit, select the key and press F2.)

 A dialog box titled "New Key" with a blue header bar. It contains a table with two columns: "Field name" and "Data". The rows are: Key, Manufacturer, Company, Description, Distributed By, Bar Code, Exp Date Offset, and Size. There are scroll arrows on the right side of the table. At the bottom are three buttons: "Change Template", "Cancel", and "OK".

A special note about logos: The data stored in the database for printing logos are not the logos themselves, but the logo file names. To print a logo from the database, the following two requirements must be met:

- The logo file name entered into the key must include the dot-bmp extension, and "bmp" must be in lower case letters. Example: **Mylogo.bmp**
- A copy of the logo's .bmp file must be stored on the controller from which it will print, and also in the **bmeps** folder for that controller on the host PC; or if **Common Folders** is selected, in the common **bmeps** folder. If the logo file is not on the controller, it will not print; if it is not on the PC, it won't be displayed on the template Edit Screen if it's added to a template.

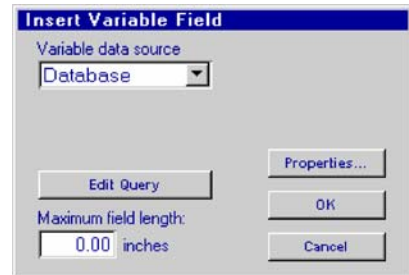
When finished entering all data, click the **OK** button. The key is added to the key list in alphabetical order.

3. Select the key just created, open the menu again, and click on the **Edit Template** button. (Keyboard shortcut: Select the key and press Enter.) The Edit Screen is displayed, with the key shown in the header in place of the message name. Insert text, date and time codes, and counts into the template as you would a regular print message. Variable, Bar Code, Date Code, Logo and Label Applicator Data fields are treated a little differently, as noted below.

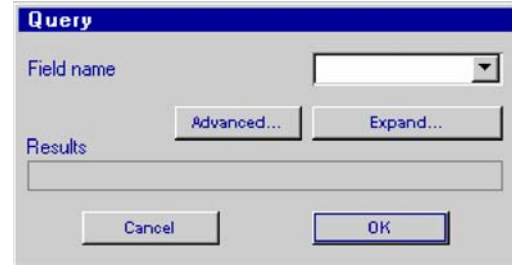


Variable Fields

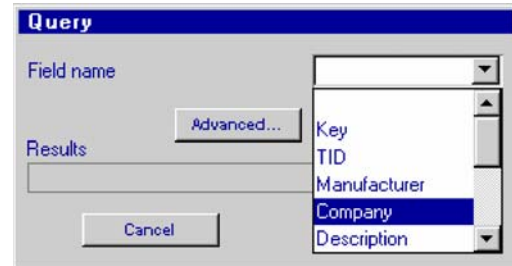
The Variable Field dialog has an additional choice for the source of the variable data: **Database**. When **Database** is selected, the **Field Name** box is replaced with an **Edit Query** button.



Click the **Edit Query** button to display the Query dialog.

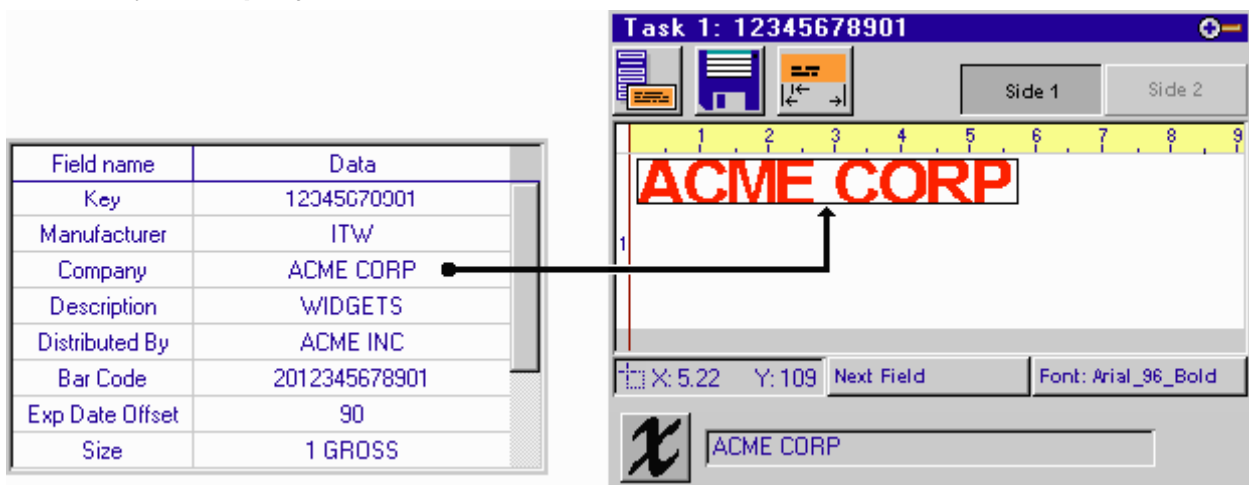


The data to be printed in the variable field is selected from the list in the **Field Name** combo box. For example, if the company name is to be printed, open the combo box, select **Company**, and click **OK**.



NOTE: The **Advanced...** button is intended for users who understand databases and want to construct their own queries. If in doubt, it is best to use the existing default settings.

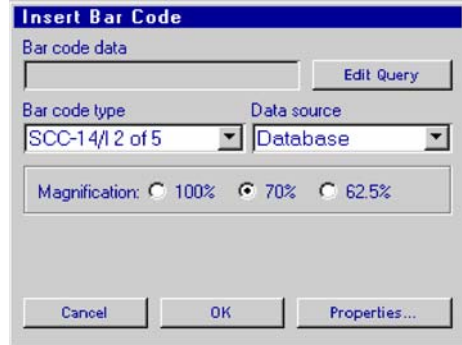
When the variable field is added to the template, it shows the company name retrieved from the key's **Company-Data** box.



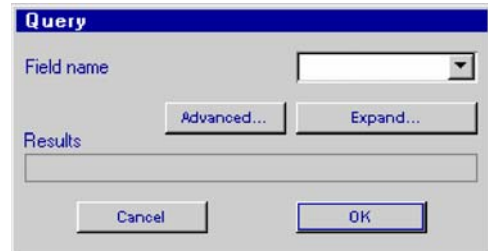


Bar Code Fields

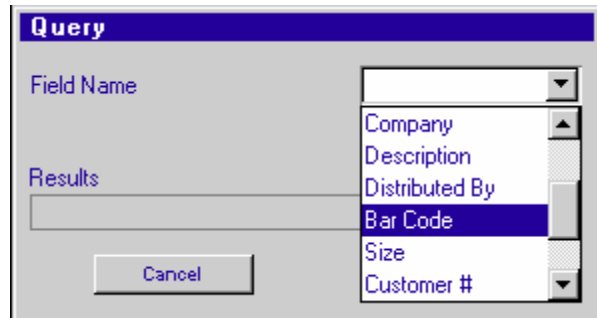
The Bar Code dialog has an additional option: **Database**. Select **Database** from the **Data source** combo box and an **Edit Query** button appears in the upper right hand corner of the dialog.



Click the **Edit Query** button to display the Query dialog.

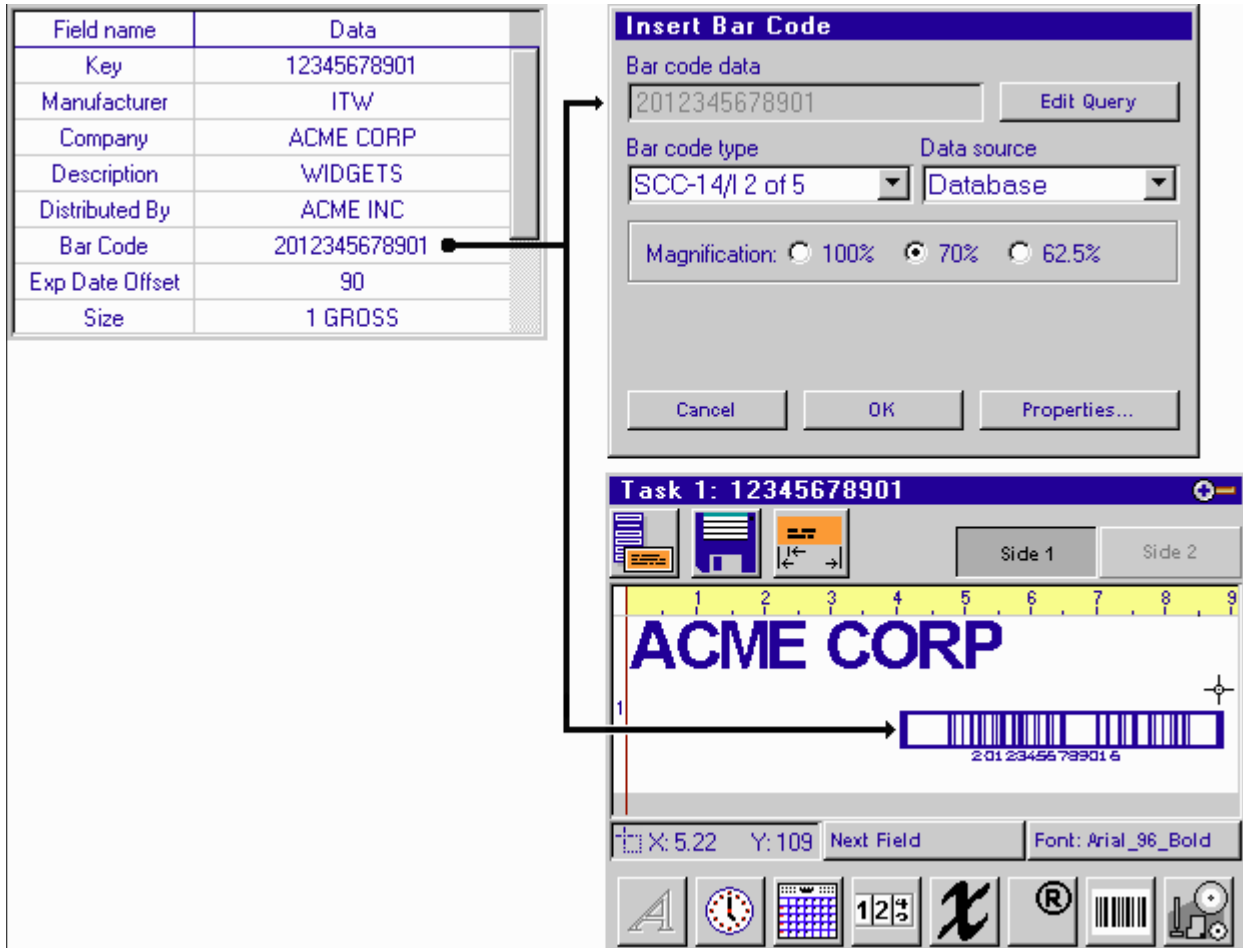


The bar code data to be printed is selected from the **Field Name** combo box. For example, open the combo box, select **Bar Code**, and click **OK**.



NOTE: The **Advanced...** button is intended for users who understand databases and want to construct their own queries. If in doubt, it is best to use the existing default settings.

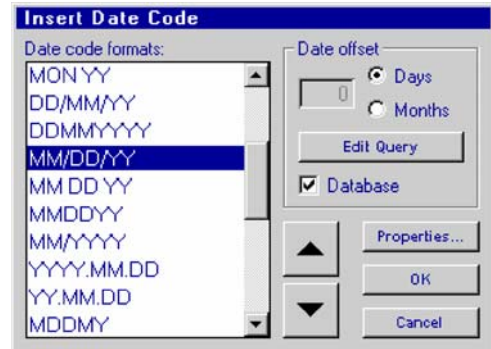
The data from the key's **Bar Code** box is inserted into the **Bar Code Data** box on the Bar Code dialog (to the left of the Edit Query button), and displayed on the Edit Screen when the bar code field is added to the template.



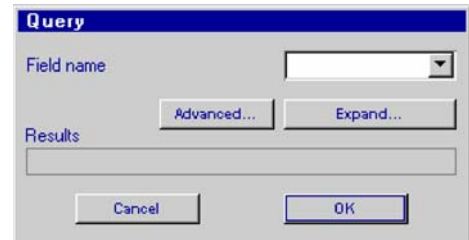


Date Code Fields

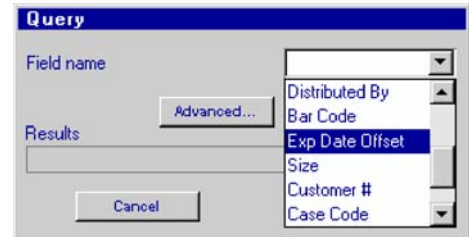
The **Date offset** box at the upper right corner of the Date Code dialog has a **Database** checkbox. When **Database** is checked, the **Edit Query** button becomes active and the offset value box becomes inactive.



Click the **Edit Query** button to display the Query dialog.



The date to be printed is calculated using the offset selected from the **Field name** combo box. For example, open the combo box, select **Exp Date Offset**, and click **OK**.



NOTE: The **Advanced...** button is intended for users who understand databases and want to construct their own queries. If in doubt, it is best to use the existing default settings

The data from the key's Exp Date Offset box is inserted into the offset value box on the Date Code dialog, and the date is displayed on the Edit Screen when the date code field is added to the template.

Field name	Data
Key	12345678901
Manufacturer	ITW
Company	ACME CORP
Description	WIDGETS
Distributed By	ACME INC
Bar Code	2012345678901
Exp Date Offset	90
Size	1 GROSS

Insert Date Code

Date code formats:

- MONYY
- DD/MMYY
- DDMMYYYY
- MM/DD/YY**
- MM DD YY
- MMDDYY
- MM/YYYY
- YYYY.MM.DD
- YY.MM.DD
- MDDMY

Date offset: 90

Days
 Months

Edit Query

Database

Properties...

OK

Cancel

Task 1: 12345678901

Side 1 | Side 2

1 2 3 4 5 6 7 8 9

ACME CORP 07/23/07

Barcode: 201 23456 78901 6

X: 5.22 Y: 109 Next Field Font: Arial_63

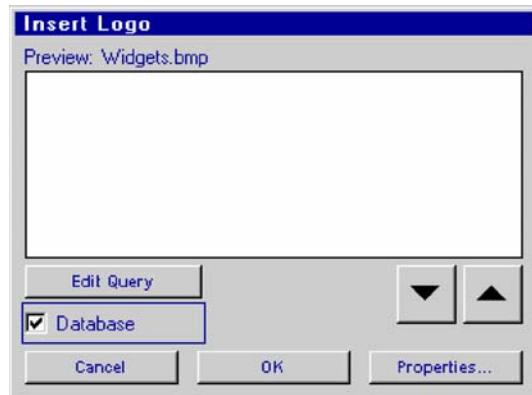
⌂ ⌚ 📅 12:35 ✂️ ® 📄 🗑️

Logo Fields

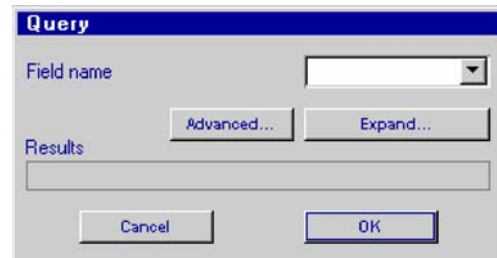
A special note about logos: The data stored in the database for printing logos are not the logos themselves, but the logo file names. To print a logo from the database, the following two requirements must be met:

- The logo file name entered into the key is case sensitive, it must include the dot-bmp extension, and "bmp" must be in lower case letters. Example: **Mylogo.bmp**
- A copy of the logo's .bmp file must be stored on the controller from which it will print, and also in the **bmpps** folder for that controller on the host PC; or if **Common Folders** is selected, in the common **bmpps** folder. If the logo file is not on the controller, it will not print; if it is not on the PC, it won't be displayed on the template Edit Screen if it's added to a template.

The Insert Logo dialog has a **Database** checkbox just above the **Cancel** button. When **Database** is checked, the **Select Logo...** button becomes an **Edit Query** button.



Click the **Edit Query** button to display the Query dialog.



The logo to be printed is selected from the **Field Name** combo box. For example, open the combo box, select **Product Logo**, and click **OK**.





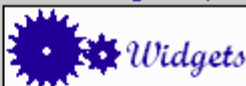
NOTE: The **Advanced...** button on the Query dialog is intended for users who understand databases and want to construct their own queries. If in doubt, it is best to use the existing default settings.

Using the file name taken from the key's **Product Logo** box, the logo is looked up and inserted into the preview window on the Insert Logo dialog, and displayed on the Edit Screen when the logo field is added to the template.

Field name	Data
Manufacturer	ITW
Company	ACME CORP
Description	WIDGETS
Distributed By	ACME INC
Bar Code	2012345678901
Exp Date Offset	90
Size	1 GROSS
Product Logo	Widgets.bmp

Insert Logo

Preview: Widgets.bmp




Edit Query

Database


Cancel OK Properties...

Task 1: New

Side 1 Side 2



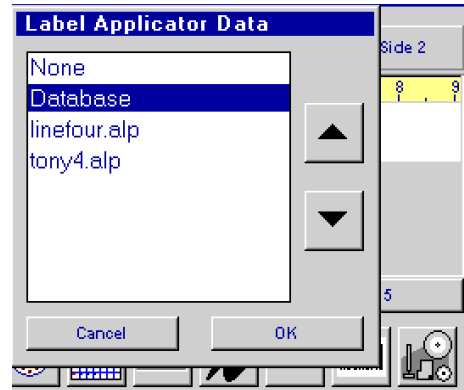
X: 5.22 Y: 109 Next Field Font: Arial_30



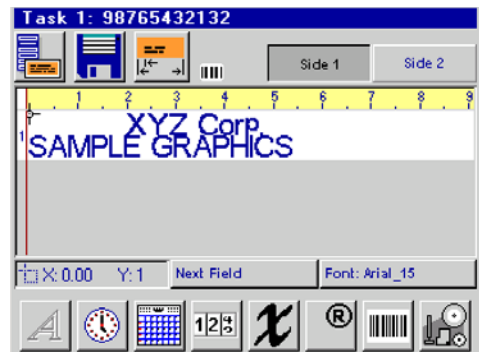


Label Applicator Data Fields

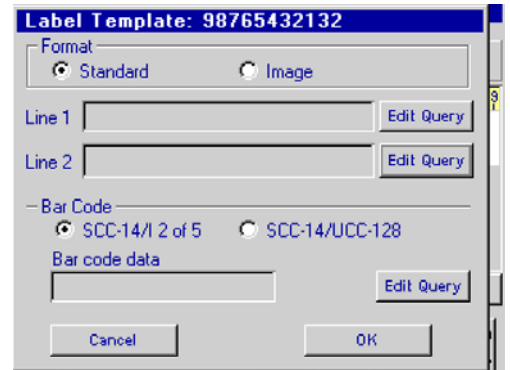
If applicable, the Label Applicator Data fields also have a database option. If chosen, the controller will use the Automatic Label Printer URL and the key value as a request back to the PC for the appropriate data.



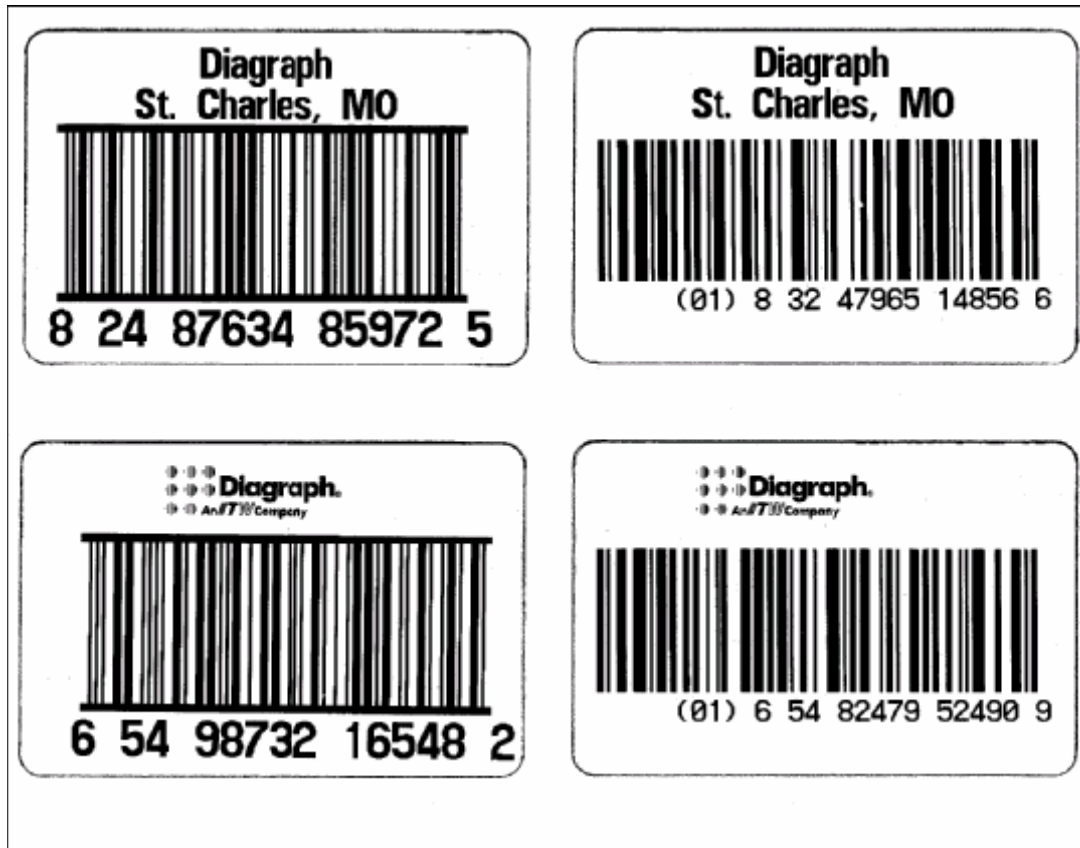
The template for the Label Applicator can be edited by clicking the Label Applicator identifier, or by pressing the F7 key.



Use the **Edit Query** button to populate the data that is to go onto the label from the database. If using an Image, the query should have a relative path to the BMP file. For example: `bmps\sample.bmp` corresponds to `c:\Program Files\InkJet\labels\ bmps\sample.bmp`.



Label Samples:



4. Save the template and exit the Edit Screen.



NOTE: Label size is fixed at 1.5" x 2.5" and contents can only consist of Line 1 + Line 2 + barcode, or Logo + barcode.



NOTE: A label's speed, darkness and rotation can be changed by editing the label template's .xbl file. For example, to change a label's speed setting, find its .xbl file in **c:\Program Files\InkJet\labels\x-#.xbl** (where **x** is the name of the template and **#** is the task number); open it in a text editor such as Notepad, locate the "spd='xx'" parameter, and change 'xx' as per 5760-113, Section 4: Product Documents, ALP Fields/Templates.

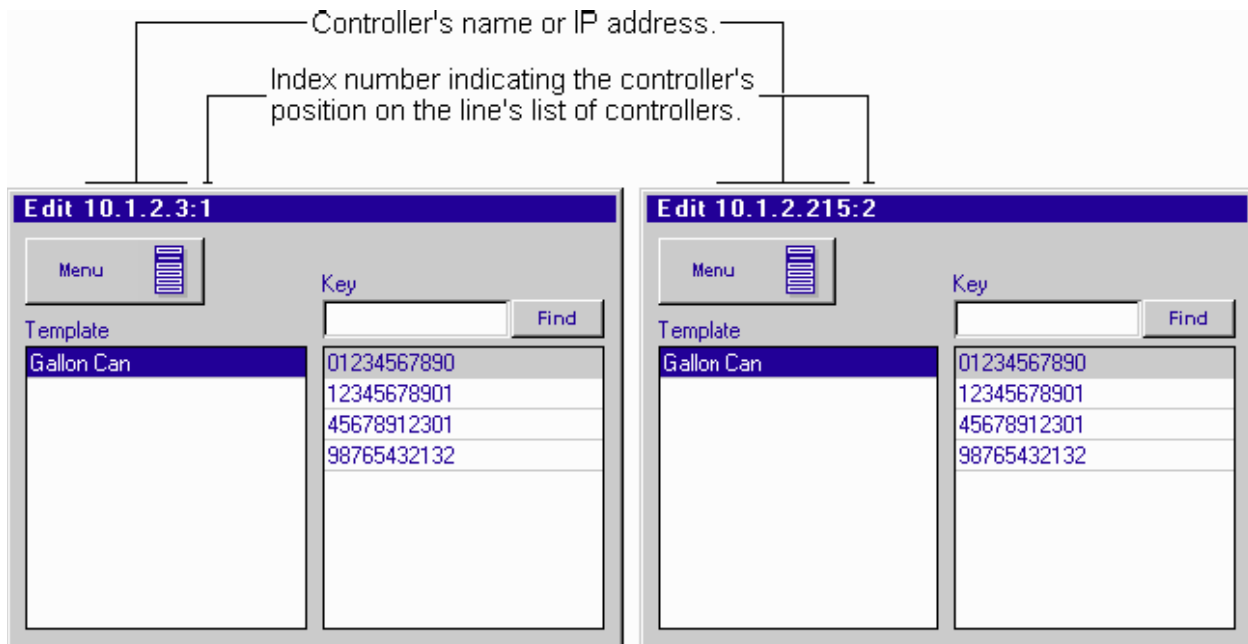
Templates for "Lines"

A template created for a controller that is part of a line grouping has a section for each controller on the line. For example, assume **Template A** is created for **Controller 1** using **Key 0511**. Also assume **Controller 1** is part of a 3-controller line grouping which includes **Controller 2** and **Controller 3**. In such a case, **Template A** is a 3-part template with sections for **Controller 1**, **Controller 2**, and **Controller 3**. To complete the creation of **Template A**, the **Template A:Key 0511** combination also has to be edited for **Controller 2** and **Controller 3**.

To do this:

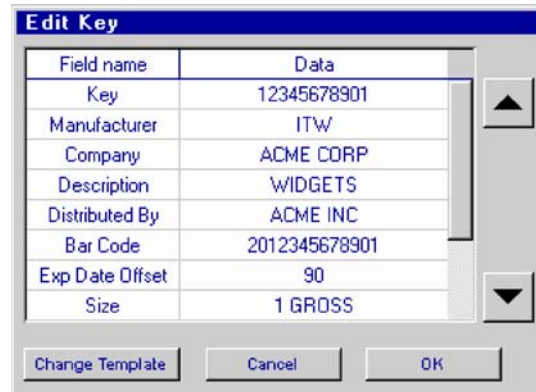
1. After creating **Template A** for **Controller 1**, return to the Network Controllers Screen.
2. Select **Controller 2** from the controller list.
3. Open the **Controllers** menu and click the **Message Templates** button.
4. On the Template Screen, select **Template A** and **Key 0511**.
5. Open the menu and click the **Edit Template** button.
6. Create the template for **Controller 2**, save it, and exit the Edit Screen.
7. Repeat steps 1 – 6 for **Controller 3**.

Hint: An index number on the Template Screen title bar indicates which controller on the line the templates are for. See below.



Edit Key Data

To edit the data in an existing key, select the template the key uses, select the key, open the menu, and click the **Edit Key Data** button. (Keyboard shortcut: select the key and press F2.) Make changes as desired and click **OK**.



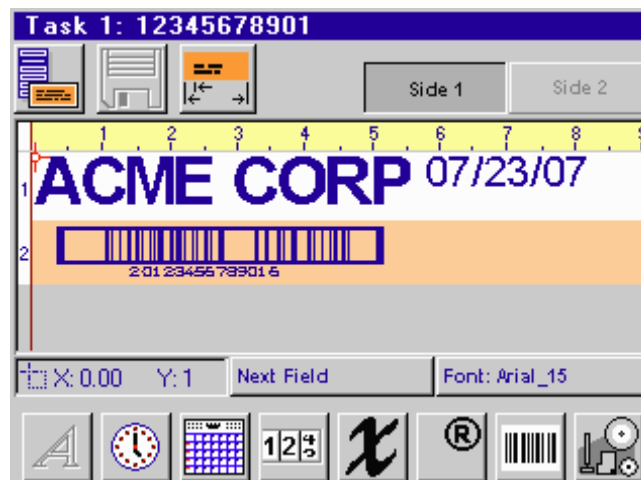
Delete Key

To delete a key, select a template, select a key, open the menu and click the **Delete Key** button. When prompted to verify that the key is to be deleted, click **Yes** to delete the key, or **No** to leave it intact.



Edit Template

To edit an existing template, select the template and select a key. (The key supplies reference data for any variable fields or bar codes in the template. The actual key data cannot be changed while editing a template.) Open the menu and click the **Edit Template** button. The template can be edited in the same manner as a print message.



Duplicate Template

To make a copy of a template, select the template, open the menu, and click the **Duplicate Template** button. When prompted, enter a name for the duplicate template and click **OK**.



Delete Template

When a template is deleted, all of its keys become of no use - they are associated with that template only - and are also deleted.

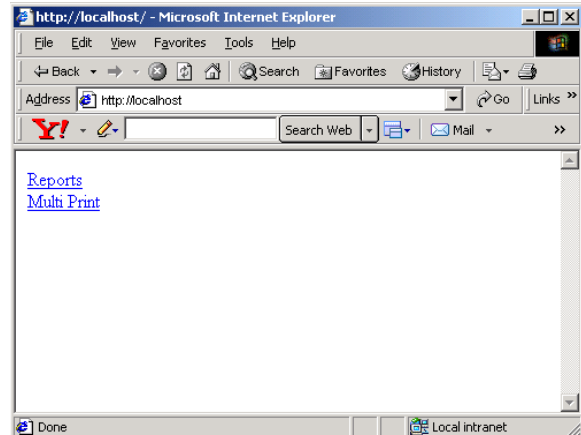


To delete a template, select the template, open the menu, and click the **Delete Template** button. When prompted to delete the template's keys, click **Cancel** to abort the deletion and return to the Template Screen, or **OK** to delete the keys and continue. When prompted to delete the Template, click **Yes** to delete it or **No** to leave it intact. In either case, the keys will have been deleted.

Section 4: Reports and Data Records

Reports

Reports can be accessed by opening a web browser (i.e. Microsoft® Internet Explorer or Firefox), going to **http://x.x.x.x**, where x.x.x.x is the IP address of the controller, and clicking on **Reports**.



This will initially show an empty list. After print requests have been received by the PC, it will show a table like the one below. Each row in the table represents a request that was sent to the PC from a controller for a product to be printed. The record is not completed until the next item is selected for print. (Note: The controller needs to be in Network mode.)

Referer	Interface	Start	End	Name	Count
10.1.2.7	0	27/Jan/2004:10:37:16	27/Jan/2004:10:37:42	12345678901	7
10.1.2.7	0	27/Jan/2004:10:37:42	27/Jan/2004:10:38:57	1234567	0
10.1.2.7	0	27/Jan/2004:10:38:57	27/Jan/2004:10:39:11	12345678901	3
10.1.2.7	0	27/Jan/2004:10:39:11		1234567	0

[CSV](#)

The **Referer** and **Interface** columns show which controller and task number the request originated from. The **Start** column shows when the item was originally requested for print, and **End** is when the following item was selected for print. **Name** is the name of the message that was printed. **Count** is the product count difference reported at the beginning and end for that interface.

Click "**csv**" for a comma-separated value text file containing the contents of the report described above. The file can be downloaded to the PC and manipulated to suit the user's needs. To download, click "**csv**". When the file is displayed, right-click the page to display the shortcut menu, and select **View Source**. The file will open in a Notepad window.

Click "**prd**" for a report on all print messages in the common folder:

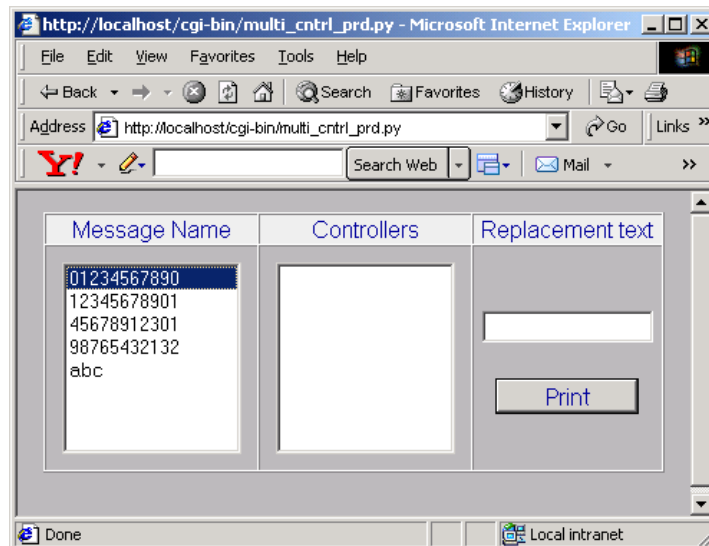
c:\Program Files\InkJet\prds

The following information is reported for each message: the message name, the date and time the message was last modified, and the contents of the message.

File Name	Last Modified Date	Contents
sample 1.prd	Tue Aug 02 12:40:41 2005	<product len='7200' charwidth='3' name='sample 1'> <text indent='72' startDot='3' cspc='6' fnt='Arial_15.pfnt'> >abc </text> <date fmt='5' offset='0' indent='306' startDot='4' cspc='6' fnt='Arial_15.pfnt' txt='08/'> <count cnt='001' start='1' stop='999' inc='1' zeros='1' pallet='0' psize='50' picnt='001'> <barcode nbars='5' str='123456789012' type='1' bleed='5' human='1' fnt='Small_5.pfnt' hg> </product>
sample 2.prd	Tue Aug 02 12:41:02 2005	<product len='7200' charwidth='3' name='sample 2'> <barcode nbars='5' str='456123789108' type='1' bleed='5' human='1' fnt='Small_5.pfnt' hg> <count cnt='0115' start='115' stop='9999' inc='1' zeros='1' pallet='0' psize='50' picnt='> </product>
test message.prd	Tue Aug 02 12:39:08 2005	<product len='7200' charwidth='3' name='test message'> <text indent='0' startDot='0' cspc='6' fnt='Arial_15.pfnt'> >Test Message </text> <date fmt='5' offset='0' indent='168' startDot='17' cspc='6' fnt='Arial_15.pfnt' txt='08'> </product>

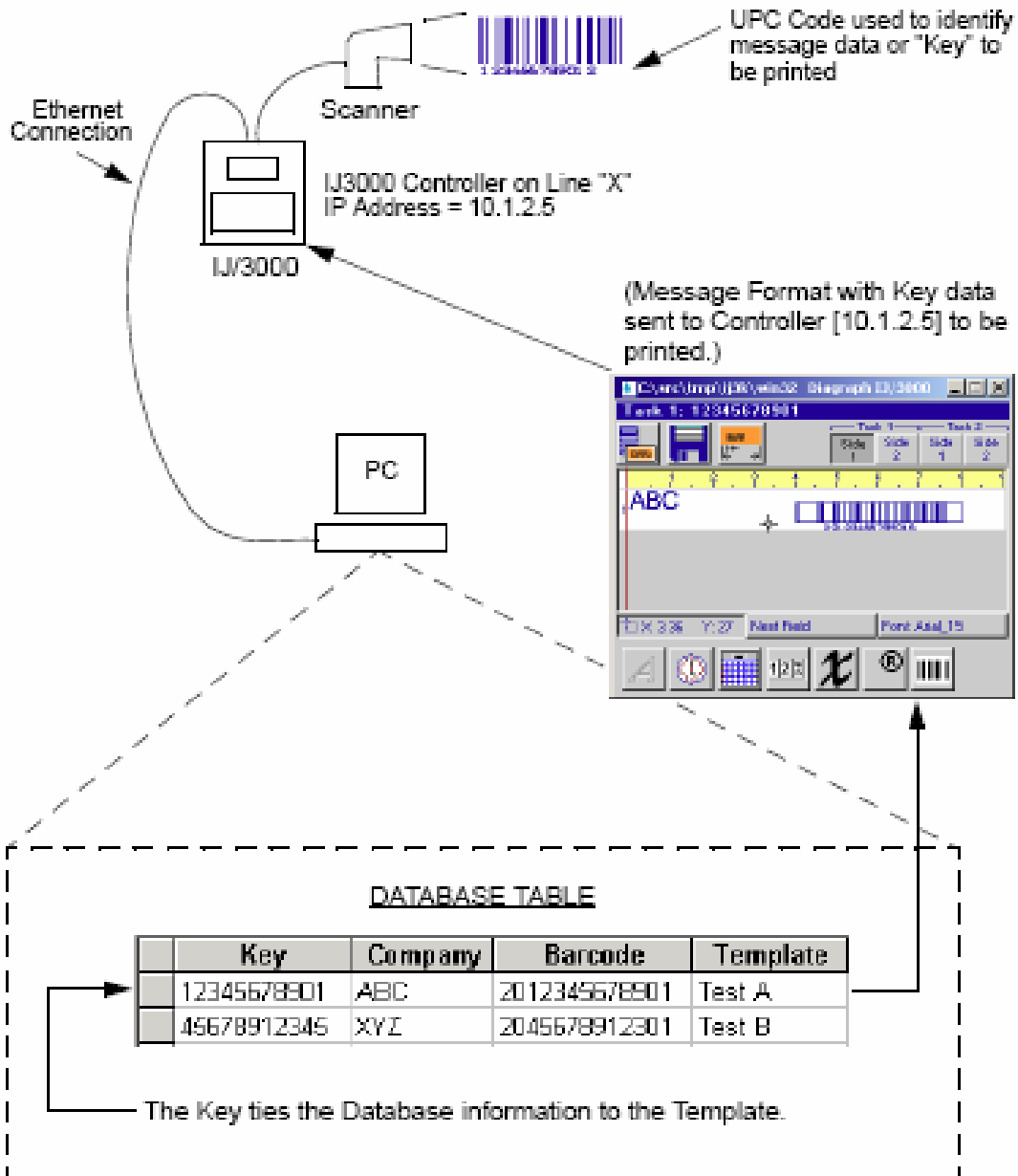
Multi Print

Multi Print will print the message from the database to more than one controller. The text entry box will replace the text within the first bar code in the message before sending the message to the controller.

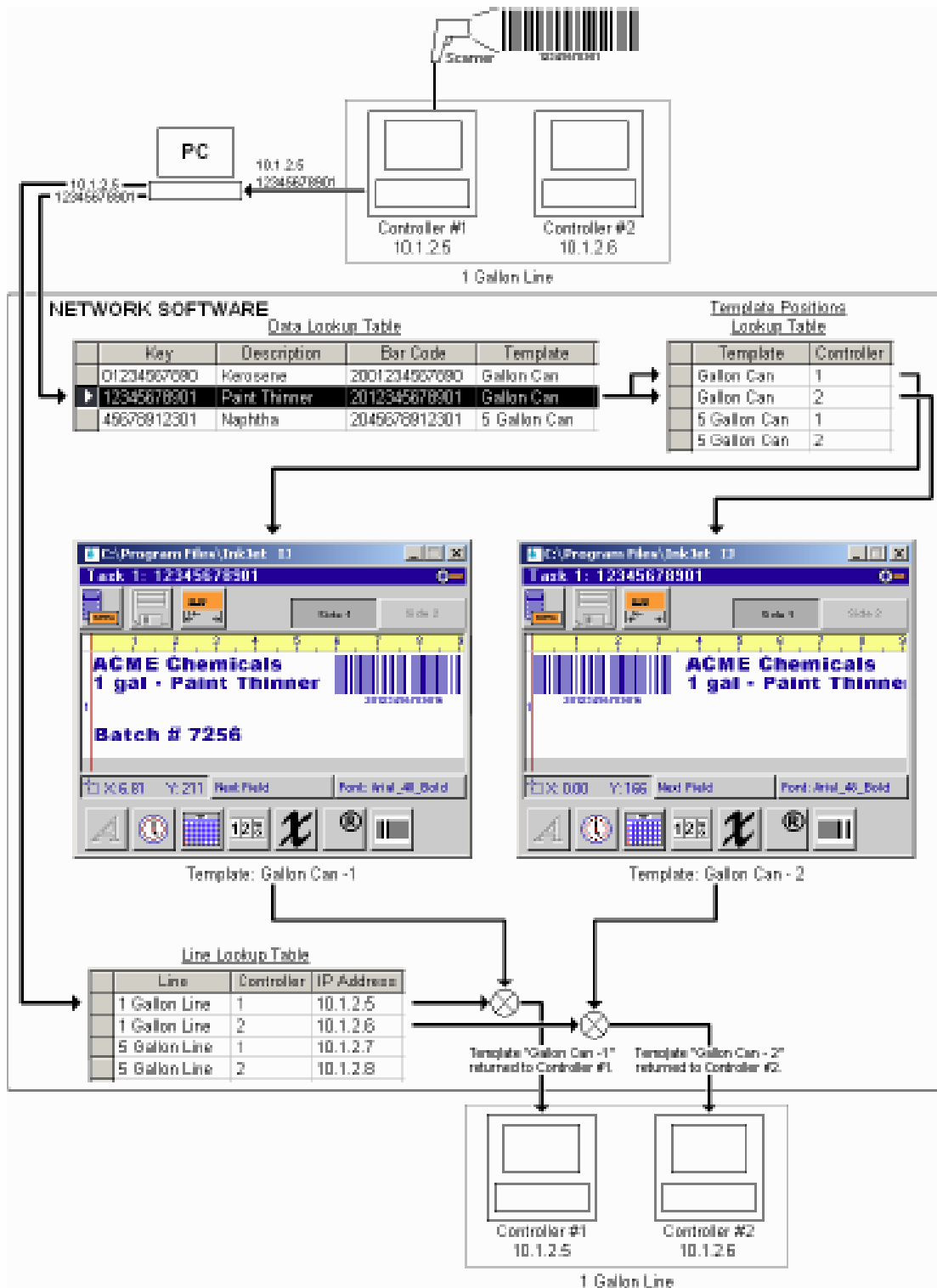


Appendix A: Database Flow Diagrams

Single Controller Per Line:



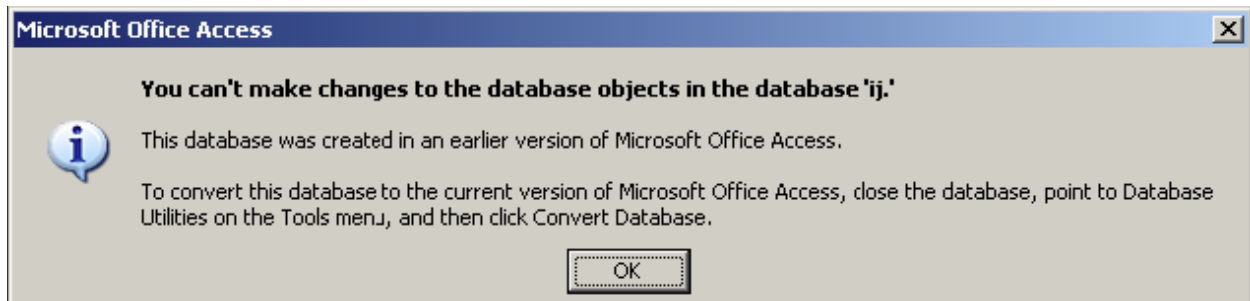
Multiple Controllers Per Line:



Appendix B: Database Conversion

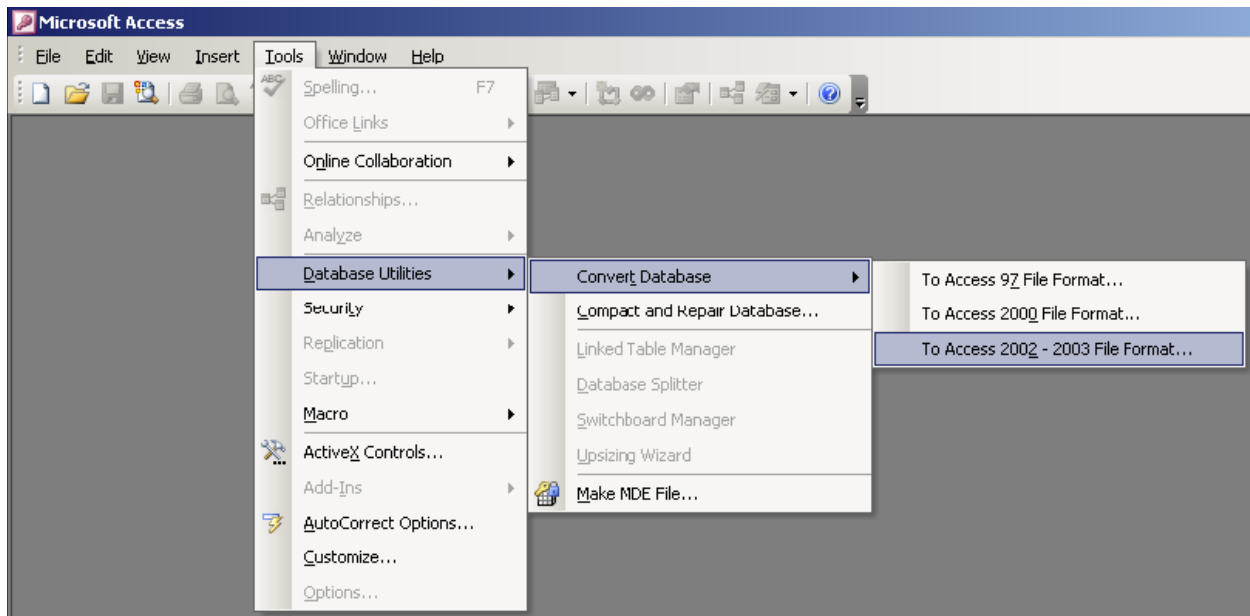
Use this procedure to import and modify an external database for use with the Ink Jet Network Software. To link an external database, rather than import it, see your local database administrator.

1. Open the default database found in **c:\Program Files\InkJet\db\ij.mdb**. The database was created using Access 97; when opened with a more recent version of Access, the following dialog box is displayed:

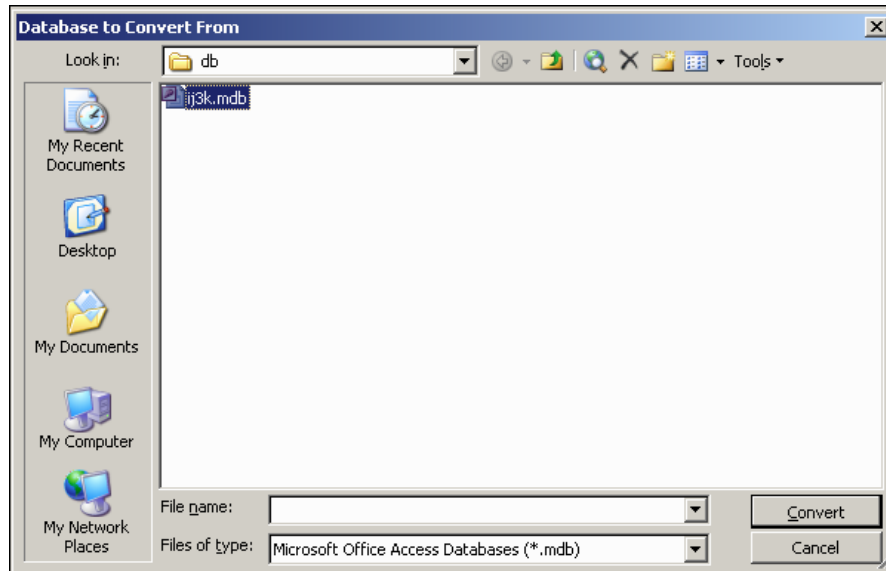


To convert the database, if needed:

- Close the database.
- From the **Tools** menu, select **Database Utilities**, then **Convert Database**, then the desired file format.



- When the **Database to Convert From** dialog opens, navigate to **c:\Program Files\InkJet\db**, select **ij.mdb**, and click **Convert**.

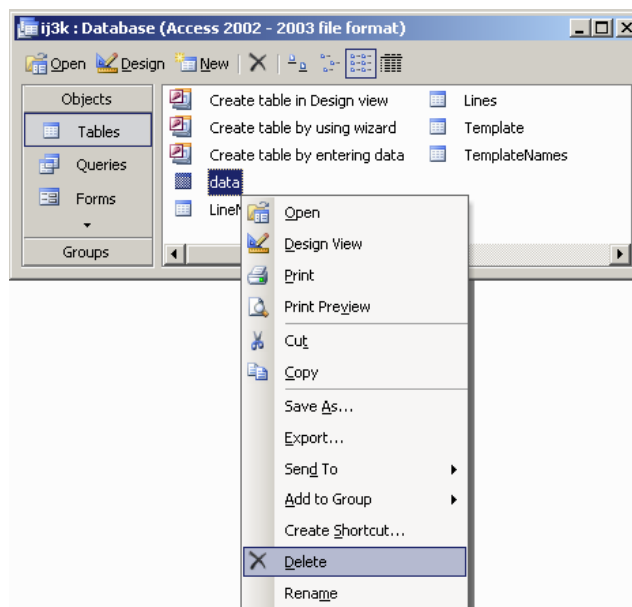


- When the **Convert Database Info** dialog is displayed, accept the default name offered for the converted database (usually **db1.mdb**) and click **Save**.



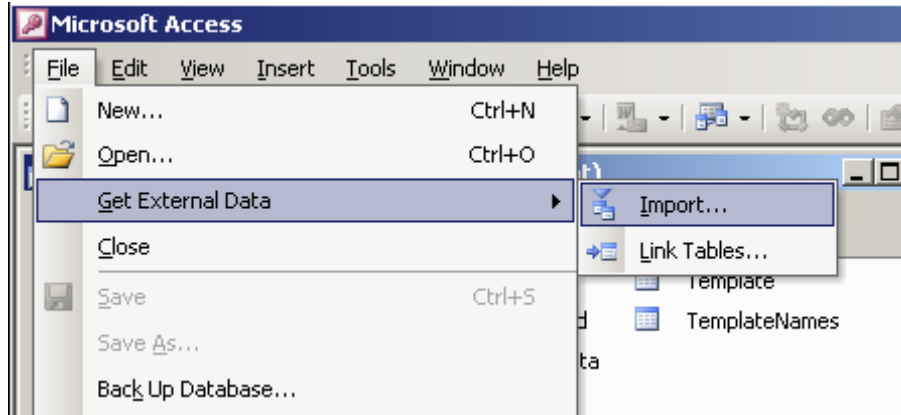
- On the **Access toolbar**, click the **Open** icon. When the **Open** dialog is displayed:
 - Right-click the **ij.mdb** file and select **Delete** from the shortcut menu. When asked to verify that **ij.mdb** is to be sent to the recycle bin, click **Yes**.
 - Right-click the **db1.mdb** file and select **Rename** from the shortcut menu. Change the name of **db1.mdb** to **ij.mdb**.
 - Click the **Open** button.

2. Delete the existing **data** table: Right-click the **data** table and select **Delete** from the shortcut menu.



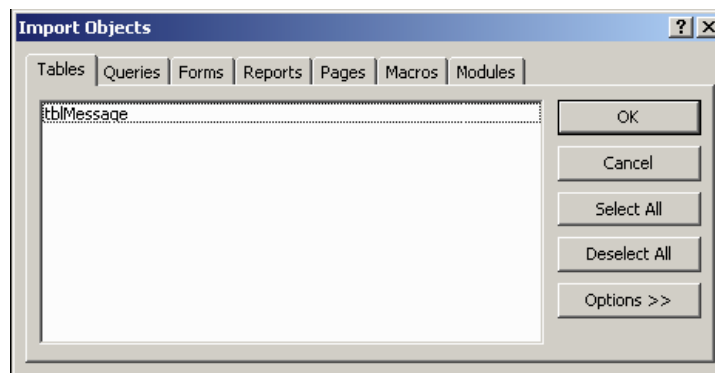
When asked to verify that **data** is to be deleted, click **Yes**. When asked if the relationships the table data has with other tables should be deleted, click **Yes**.

3. Import external data, naming it **data**: From the Access **File** menu, select **Get External Data**, then **Import...**

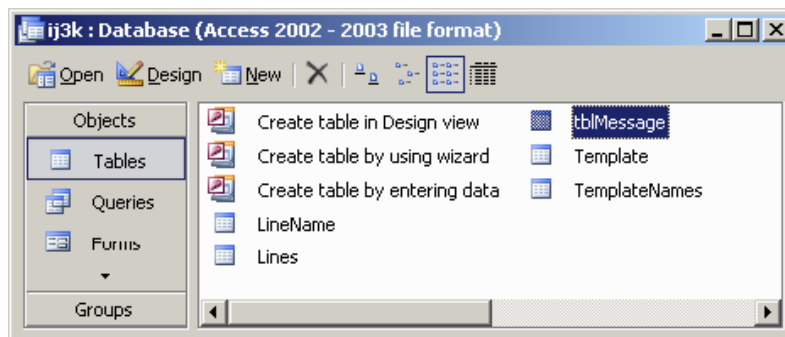


When the **Import** dialog is displayed, navigate to the file being imported. If the file is not an Access file type, select the proper file type from the **Files of type** list at the bottom of the dialog box. Click the **Import** button.

If the data being imported is from a database file, an **Import Objects** dialog appears.

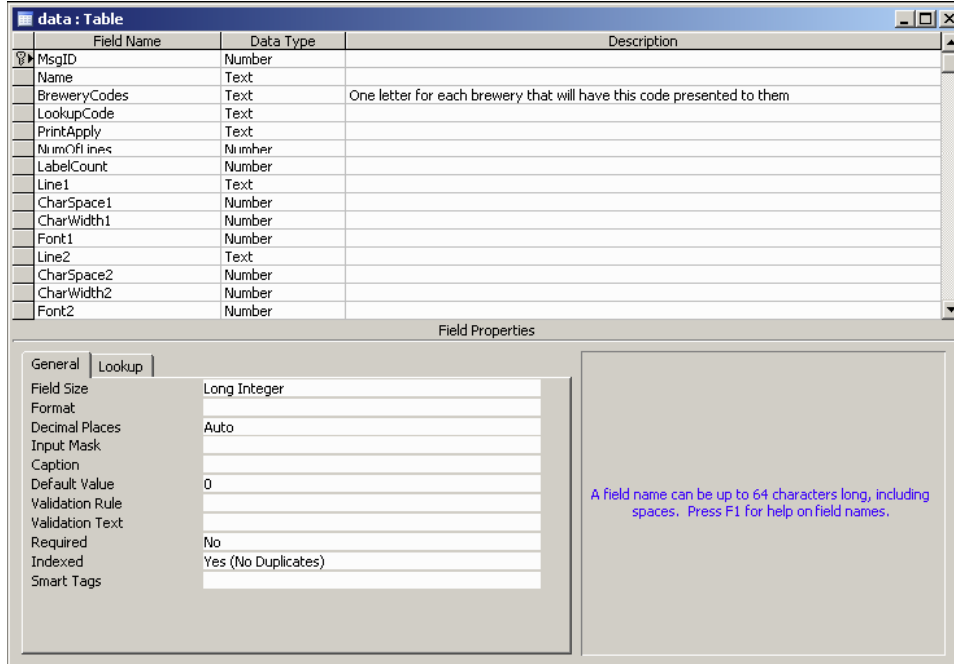


From the **Tables** tab, click on the data table to be imported (even if there is only one) and click the **OK** button. The table is added to the ij3k database.

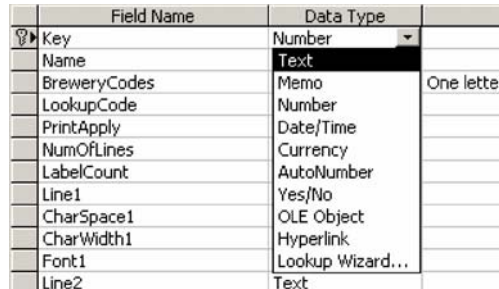


Right-click on the data table just imported, select **Rename** from the shortcut menu, and change the name of the table to **data**.

- Rename your lookup field to **Key**: Right-click the data table and select **Design View** from the shortcut menu. The table opens in a design view window:



In this example, the lookup field is MsgID. Double-click on the MsgID cell and type in **Key**. Click on the **Key** field's **Data Type** cell; an arrow appears. Click the arrow to display the data type list and select **Text** from the list.



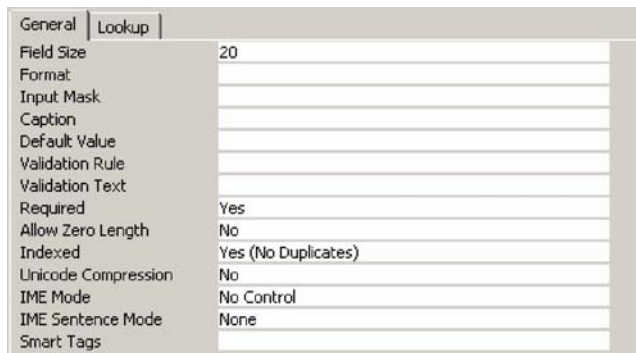
Click on and set each **Key** field property as follows:

Field Size: To suit

Required: Yes

Allow Zero Length: No

Indexed: Yes (No Duplicates)



5. Add a **TID** field: Right-click anywhere on the second row of the data table (in this example, the **Name** field) and select **Insert Rows** from the shortcut menu. Click on the **Field Name** cell of the new row and type in **TID**. Set the row's **Data Type** to **Number**.

data : Table		
	Field Name	Data Type
🔑	Key	Text
▶	TID	Number
	Name	Text
	BreweryCodes	Text

One letter for each brewery that will

Data table after TID field inserted

Set the **TID** field properties as follows:

Field Size: Long Integer

Default Value: 0

Required: No

Indexed: Yes (Duplicates OK)

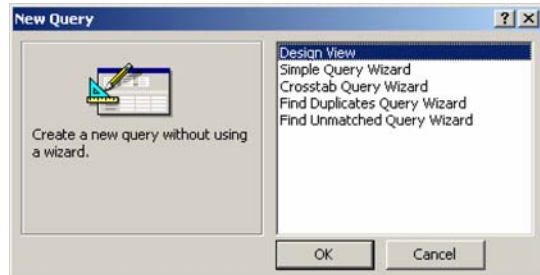
Save, and then close the data table.



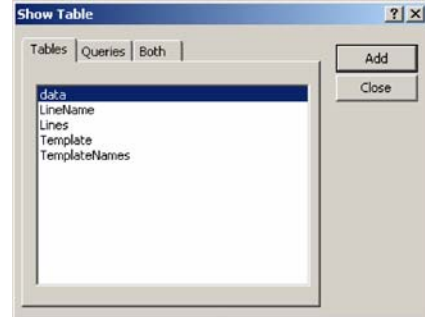
6. **NOTE:** In this step, all of the keys in the database are assigned to message template #1. In the sample database installed with the software, it is the template named **Sample IV**. When running the network software, select **Sample IV** to see the keys in the converted database.

Select the **Queries** object and then click **New**.

When the **New Query** dialog appears, select **Design View** and click the **OK** button. The **New Query** dialog disappears and **Select Query** and **Show Table** windows are displayed.



On the **Show Table** window, select **data** from the **Tables** tab, click **Add**, and then click **Close**.

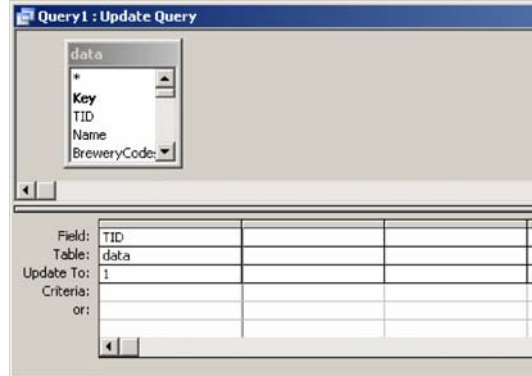


In the **Update Query** window, open the **Field** list box and select **TID**.

In the **Update To** cell enter a **1**.

On the menu bar, open the **Query** menu and select **Run**. When prompted to verify the update, click **Yes**.

Close the **Update Query** window. When prompted to save the changes, click **No**.



- Designate the key fields: Select the **Tables** object, right-click on the **data** table, and select **Design View** from the shortcut menu. Select both the **Key** and **TID** rows by clicking the button to the left of the **Key** row, press and hold the **shift** key, and click the button to the left of the **TID** row.

data : Table			
	Field Name	Data Type	
<input checked="" type="checkbox"/>	Key	Text	
<input checked="" type="checkbox"/>	TID	Number	
<input type="checkbox"/>	Name	Text	
<input type="checkbox"/>	BreweryCodes	Text	One letter for each brew
<input type="checkbox"/>	LookupCode	Text	



On the Access toolbar click the **Primary Key** icon.

- Change the data type of all fields except the TID field to **Text**. Fields must be of data type **Text** to be visible when creating or editing Key data.



- Click the **Save** icon on the Access toolbar to save the changes. If a dialog is displayed warning of a Null error or a duplicate error, there are one or more blank **Key** fields, or **Key** fields with duplicate data. Close the data table; when prompted to save the changes click **No**. Double-click the **data** table to open it in Datasheet View. Delete or edit records with duplicate **Key** information or blank **Key** fields, close the data table, and then repeat the procedure from step 6.

Delete any unneeded fields: Fields containing message formatting information such as fonts, character width, character spacing, print lines or print head numbers may be deleted. Except for expiration date offsets (90 days, 6 months, etc.), fields containing auto codes or auto code formatting may also be deleted. This information is all specified in message templates.



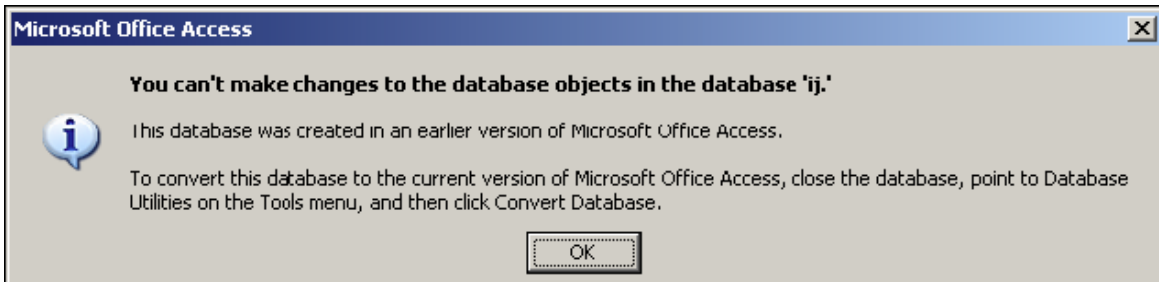
Click the **Save** icon on the Access toolbar to save the changes and close the data table.

Database conversion is complete; close Access

Appendix C: Modifying the Sample Database

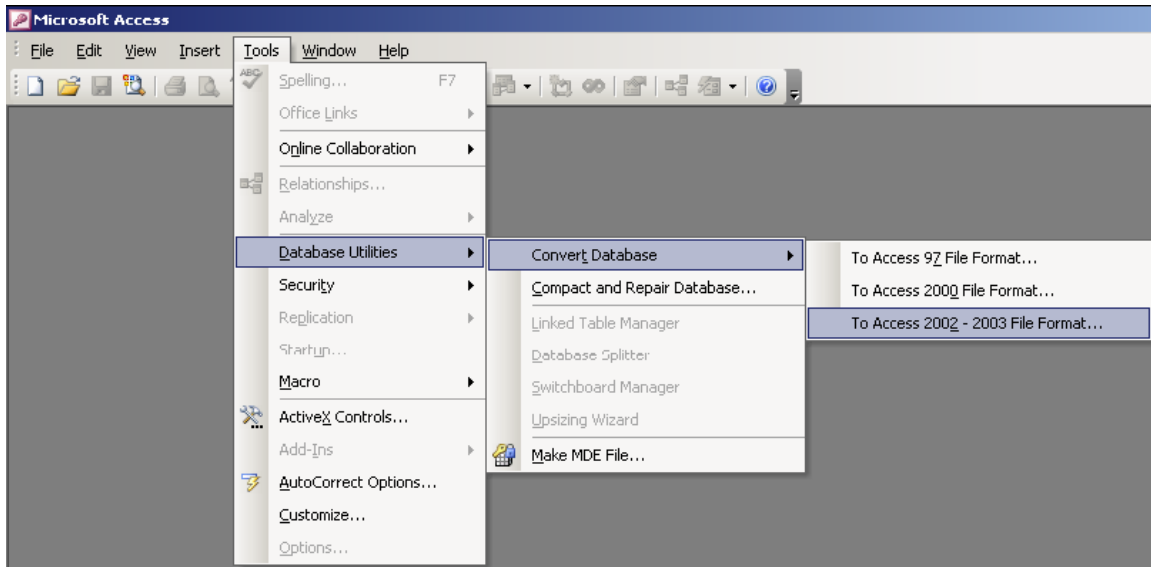
Use this procedure to modify the sample database (installed with the Ink Jet Network Software) for use in your application.

1. Open the sample database found in **c:\Program Files\InkJet\db\ij.mdb**. The database was created using Access 97; when opened with a more recent version of Access the following dialog box is displayed.

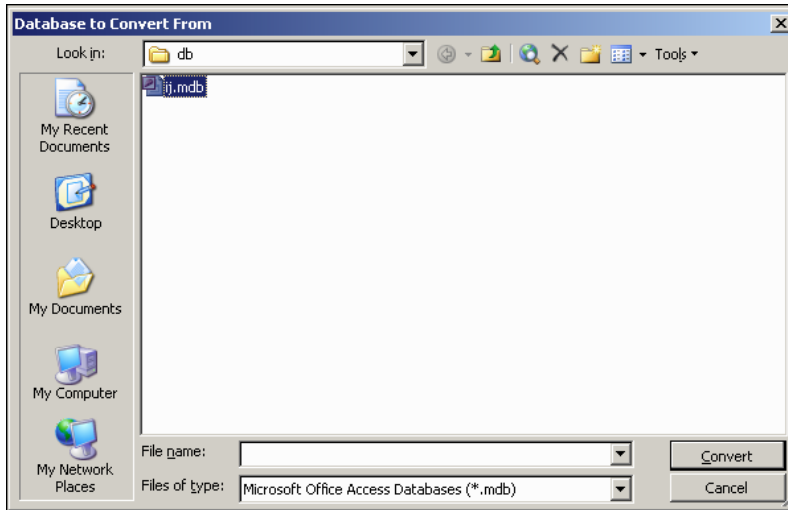


If the database does not need converting, skip to step 2; otherwise convert the database:

- Close the database.
- From the **Tools** menu select **Database Utilities**, then **Convert Database**, then the desired file format.



- When the **Database to Convert From** dialog opens, navigate to **c:\Program Files\InkJet\db**, select **ij.mdb**, and click the **Convert** button.



- When the **Convert Database Into** dialog is displayed, accept the default name offered for the converted database (usually **db1.mdb**) and click **Save**.

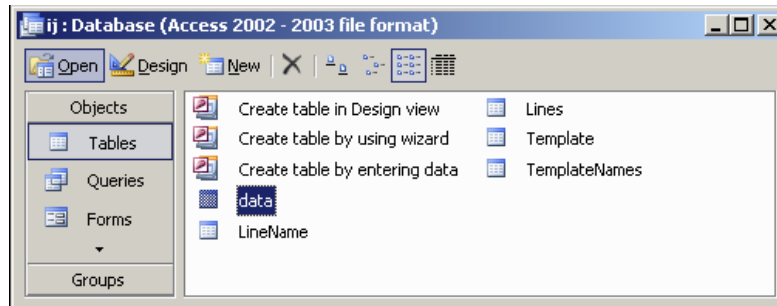


- On the Access toolbar click the **Open** icon. When the Open dialog is displayed:
 - Right-click the **ij.mdb** file and select **Delete** from the shortcut menu. When asked to verify that ij.mdb is to be sent to the recycle bin, click **Yes**.
 - Right-click the **db1.mdb** file and select **Rename** from the shortcut menu.
 - Change the name of **db1.mdb** to **ij.mdb**.
 - Click the **Open** button.

2. Delete existing keys.



- In the ij:Database window select the **data** table and click the **Open** button.



The **data** table is displayed in Datasheet View format:

data : Table						
	Key	TID	Manufacturer	Company	Description	Distributed
▶	01234567890	2		DEF		
	12345678901	1	Acme Corp.	ABC	Widgets	Acme Inc.
	45678912301	1		GH		
	98765432132	3	XYZ	XYZ Corp.	Gadgets	XYZ
*		0				

- Click the button on the left end of the top row of the table; then, while pressing the **Shift** key, right-click the button on the left end of the second to last row. Select **Delete Record** from the shortcut menu.

Key	TID	Manufacturer	Company	Description	Distributed
01234567890	2		DEF		
12345678901	1	Acme Corp.	ABC	Widgets	Acme Inc.
45678912301	1		GHI		
98765432100	3	XYZ	XYZ Corp.	Gadgets	XYZ
	0				

When asked to confirm that the four records are to be deleted, click **Yes**. The table should now look like this:

Key	TID	Manufacturer	Company	Description	Distributed
	0				

3. Rename, delete, and add fields as needed.

- On the Access toolbar, click the **View** icon (left side, just beneath the File menu) to change the **data** table to Design View.



Field Name	Data Type	Description
Key	Text	
TID	Number	
Manufacturer	Text	
Company	Text	
Description	Text	
Distributed By	Text	
Bar Code	Text	
Exp Date Offset	Text	
Size	Text	
Customer #	Text	
Case Code	Text	
City, State	Text	
PO Number	Text	

Field Properties	
General	Lookup
Field Size	11
Format	
Input Mask	
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	No
Allow Zero Length	No
Indexed	No
Unicode Compression	Yes
IME Mode	No Control
IME Sentence Mode	None
Smart Tags	

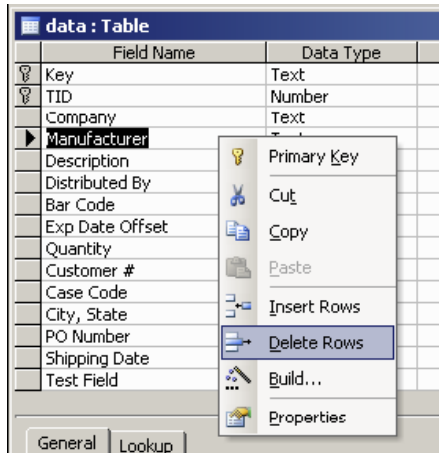
A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

- Rename, delete, and add fields as needed to meet your requirements.

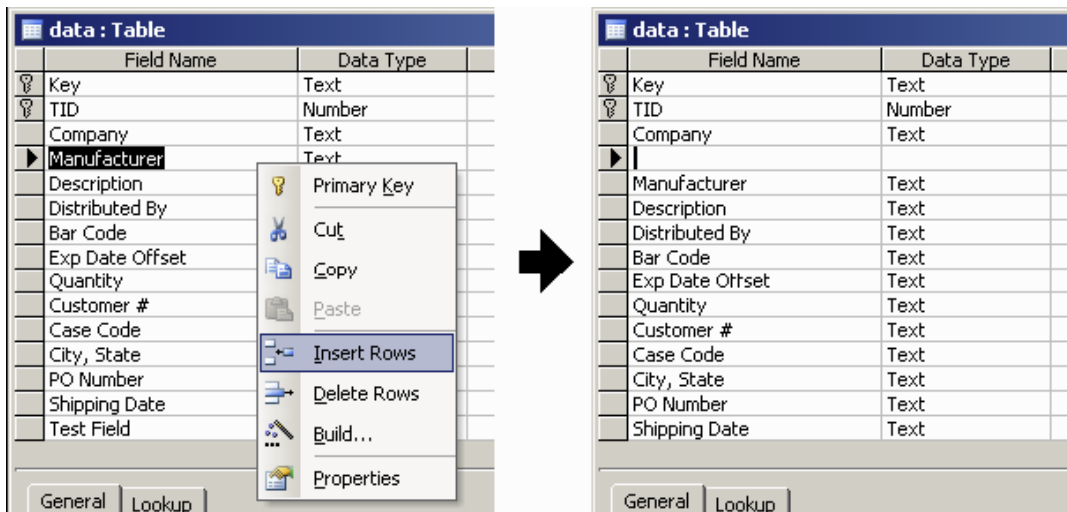


NOTE: The **Key** and **TID** fields are required and cannot be deleted or renamed.

- To rename a field, double-click the existing field name, and then type in the new name. The new name replaces the old.
- To delete a field, right-click anywhere on the field and select **Delete Rows** from the shortcut menu.



- To add a field, click in the **Field Name** box of the first blank row. Type in the field's name and press **Enter**. When Enter is pressed, the field's **Data Type** is automatically set to **Text**; leave it as such.
- To insert a field, that is, add a new field between two existing fields, right-click anywhere on the row of the field that is to follow the new field, and then select **Insert Rows** from the shortcut menu; a blank row is inserted into the table.

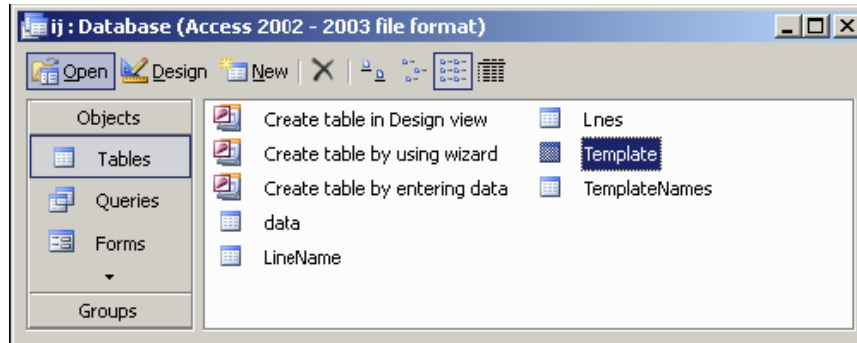


Type the field's name into the **Field Name** box and press **Enter**. When Enter is pressed, the field's **Data Type** is automatically set to **Text**; leave it as such.

- Save the changes and close the data table.

4. Delete existing templates and template names.

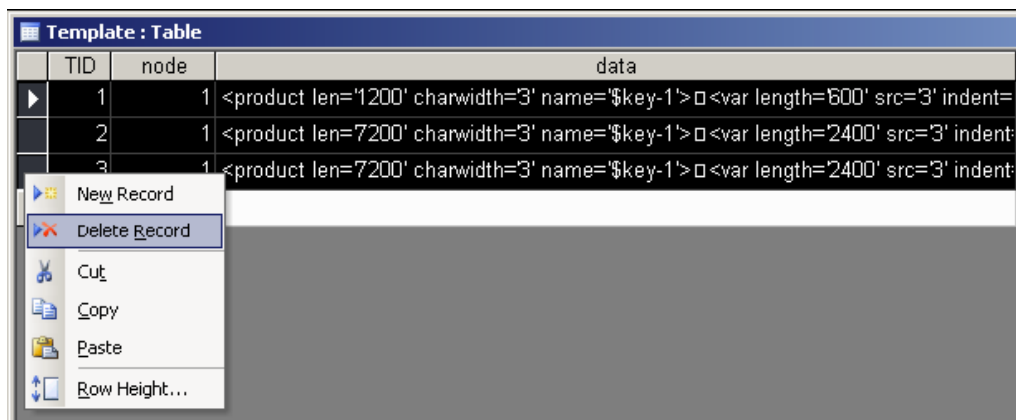
- In the ij:Database window select the **Template** table and click **Open**.



The **Template** table is displayed in Datasheet View format.

Template : Table			
	TID	node	data
▶	1	1	<product len='1200' charwidth='3' name='\$key-1'>□<var length='600' src='3' indent=
	2	1	<product len='7200' charwidth='3' name='\$key-1'>□<var length='2400' src='3' indent=
	3	1	<product len='7200' charwidth='3' name='\$key-1'>□<var length='2400' src='3' indent=
*	0	0	

- Click the button on the left end of the top row of the table; then, while pressing the **Shift** key, right-click the button on the left end of the second to last row. Select **Delete Record** from the shortcut menu.



When asked to confirm that the three records are to be deleted, click **Yes**. The table should now look like this:

Template : Table			
	TID	node	data
▶	0	0	

Close the **Template** table.

Repeat the procedure for the **TemplateNames** table.

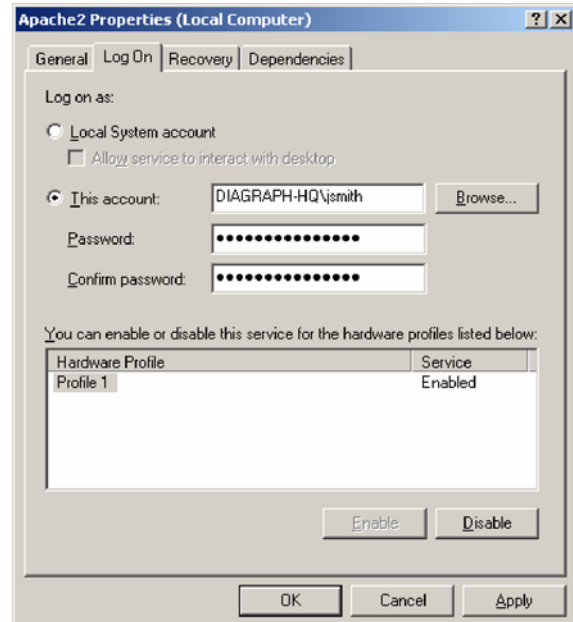
Modification is complete. Close Access.

Appendix D: ij.mdb Relocation

1. Move the **ij.mdb** file to the desired location.
2. Open the **Start** menu; select **Settings**, then **Control Panel**.

In the **Control Panel** window, double-click on the **Administrative Tools** icon; and in the **Administrative Tools** window, double-click on the **Services** icon.

In the **Services** window, right-click on the **Apache2** icon and select **Properties** from the shortcut menu. When the Properties window appears (see illustration at right), click the **Log On** tab, and then click on the **This account** radio button. Enter a valid user name and password (press **Ctrl - Alt - Del** to bring up a window displaying the user currently logged on to the computer), and then click the **OK** button. A dialog box appears advising that the new logon name will not take effect until the service is stopped and restarted. Click **OK** to close the dialog box.



Return to the Service window. Click on the small black square on the toolbar to stop the service, and then click the small black triangle to restart it.

Close the **Services** and **Administrative Tools** windows.

3. Open the **Start** menu and select **Run...** When the **Run** dialog is displayed, type **regedit** in the **Open:** box and click the **OK** button.

Backup the registry file: In the left column of the **Registry Editor** window, go to the top of the tree view and click on **My Computer**. Open the **File** menu and select **Export...**; navigate to the folder in which you want to store the backup file, name the file, and click the **Save** button.

In the tree view on the Registry Editor window, click on the + signs to expand the view to **My Computer\HKEY_LOCAL_MACHINE\SOFTWARE\ODBC\ODBC.INI\itw-inkjet**

Click on the IJ3000 folder; the folder's contents are displayed in the window.

Double-click on the **DBQ** file; an **Edit String** dialog box appears. In the **Value data** box, type the UNC (Universal Naming Convention) path to the **ij.mdb** file's new network location. (See the example at right.)

Click the **OK** button and close any open windows

