

PRINTER TICKET DESIGN PROGRAM

Manual

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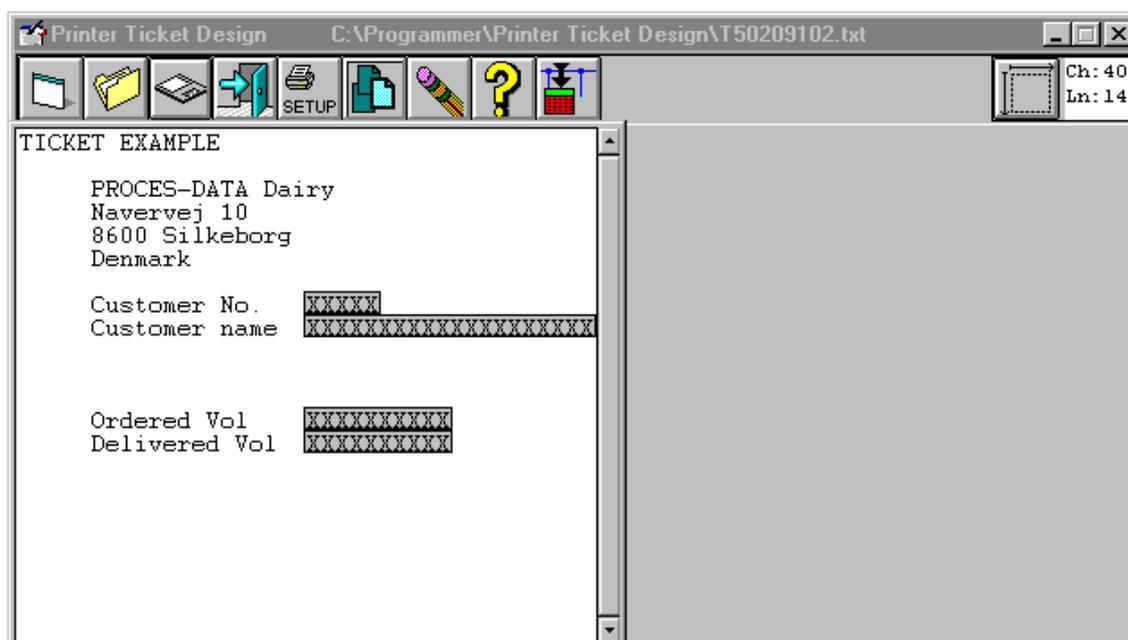
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1 General information

The Printer Ticket Design program is a tool for designing printer tickets for the PD 4000/340 Flowmeter-Display system. This program makes it possible to create a ticket layout on a PC monitor, and then download this design to the PD 4000/340 Flowmeter-Display.



A particular ticket layout can be saved as a text file on the PC hard disc. If corrections have to be subsequently made to the ticket, or if a layout has to be downloaded to a PD 4000/340 Flowmeter-Display, the text file can be re-opened by the design editor.

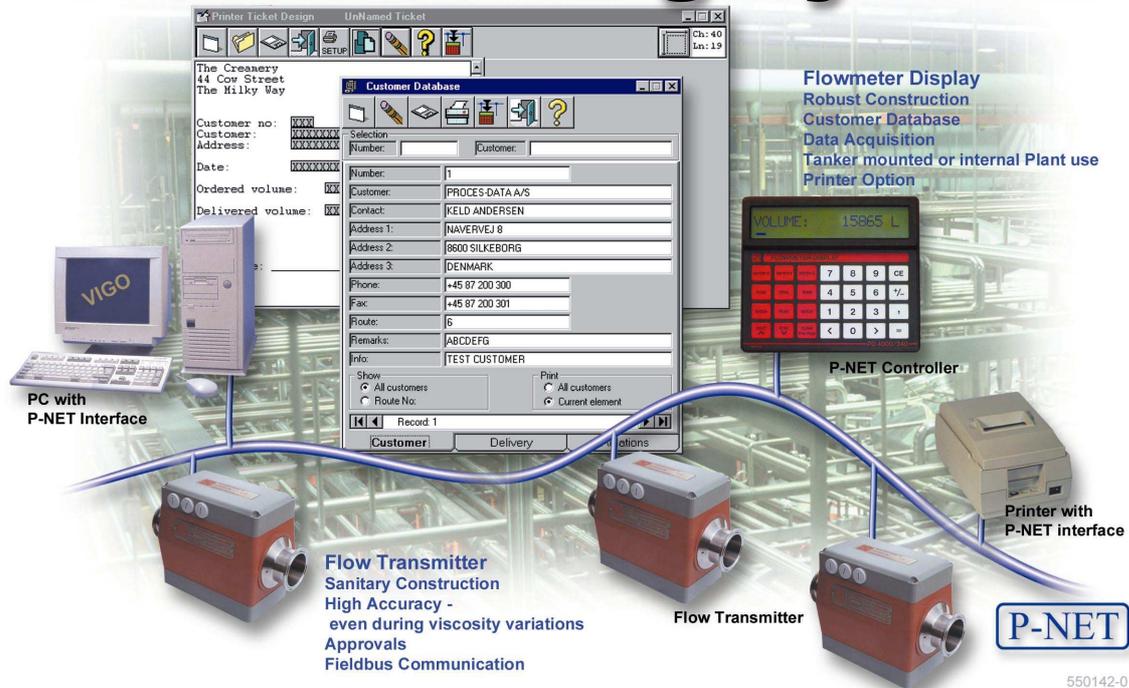
The facilities offered by this program, provide a high degree of flexibility in choosing the type of printer that is appropriate for a system. The only requirement is that the printer must have an RS232 interface.

1.1 Features

- Printer ticket design using a simple text editor
- Update boxes are positioned easily, by dragging them with the PC mouse
- Ticket layouts saved as text files on the PC hard disc
- Loading of previous ticket designs from the PC hard disc into the design editor
- Configuration of printer start and stop codes
- Easy installation on a standard PC running Windows 95/98/NT
- Download of ticket layout to the PD 4000/340 Flowmeter-Display system
- Communication via to the P-NET Fieldbus, EN50170 vol. 1 and IEC 61158 type 4

1.2 System description

Flowmetering System



The figure above shows how a PC, with built in PC/P-NET Interface, is connected to the Flowmeter system. The PC is normally used as a base station, and only connected to the Flowmeter system for download of a printer ticket layout and transfer of database information.

The program is installed on a standard PC running Windows 95/98/NT. This PC has to be equipped with a plug-in PD 3920 card or PD 3930 PC/P-NET Interface module. For further information about installation of a PC/P-NET card, refer to the installation guides, ref. no. 506 041 for PD 3920 on windows 95/98, ref. no. 550 036 for PD 3920 on Windows NT and ref. no. 550 048 for PD 3930 on Windows 95/98/NT.

The exchange of data between the ticket design program and the P-NET installation, is handled by a product called VIGO, which also has to be installed on the PC.

VIGO is a PC based Fieldbus Management System. It enables a physical plant to be described in terms of data, related data structures and the location of the data. Such a description is already included within VIGO for the PD 4000/340 system. For further information about the VIGO system, refer to the VIGO Users Manual, ref. no. 502 086.

VIGO makes it possible for the design program to select a variable, such as Volume or Setpoint, which resides in the PD 4000/340 display. This variable can then be inserted in the ticket design layout, as an update box. Subsequently, when a Print function is activated from the PD 4000/340 display, the value of this variable will then be printed on the ticket, in the selected position.

2 Functions description

The Ticket design program can be regarded as a normal text editor, where repeatable text can be positioned as it is required to be presented on an actual printout. Standard right hand mouse button functions for Windows 95/98/NT, such as Cut, Paste and Copy, are supported by the program.

The editor is equipped with a toolbar, and most of the available functions are chosen by clicking on the buttons in the toolbar, using the left hand mouse button.

A description of the toolbar button functions, is given on the following pages.

2.1 Starting the program

The design program is started by clicking on the Printer ticket design program, found in the <Windows | Start | Programs | PDFlow menu>

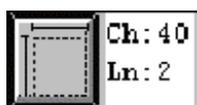
2.2 New Ticket



To clear the editor screen to get a blank page for a new ticket design, click on the <New Ticket> button with the mouse. The number of characters on a line is preset to 40 characters.

Selecting New Ticket will overwrite any current layout displayed by the editor.

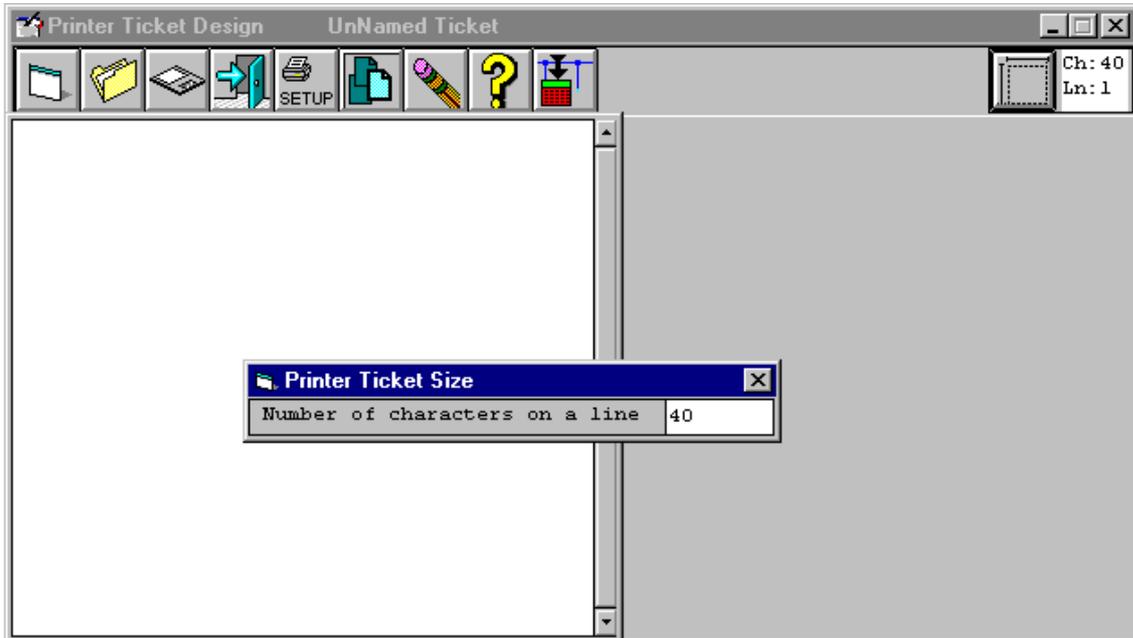
2.3 Setting the paper width



The first step in designing a ticket layout is to set the paper width. To do this, click the left hand mouse button on the <Paper Size> button. Key in the width, as the number of characters required on each line, and press the Enter key. The default value is set to 40.

The number of characters on each line is displayed in the field to the right of the toolbar. This field also contains the actual position of the text cursor.

The white area displayed by the design editor is now a facsimile of the paper that will be produced by an actual printout.



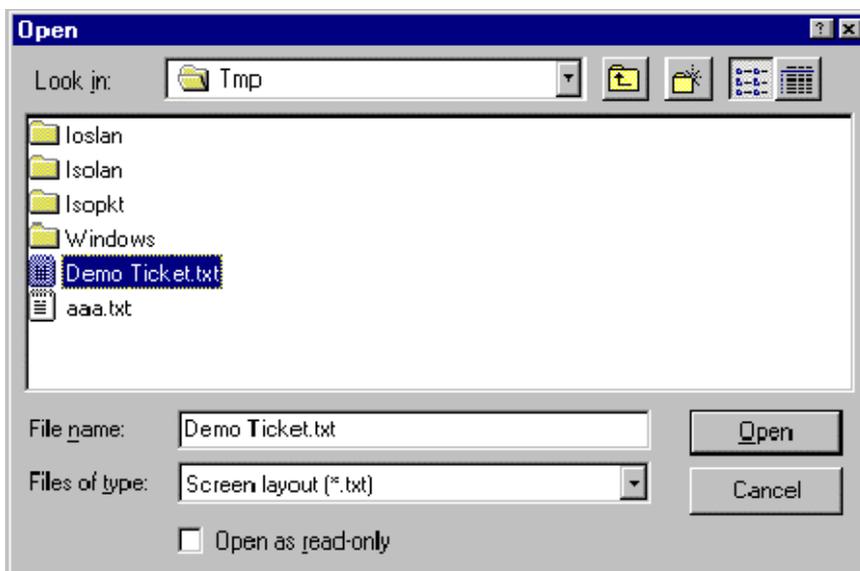
2.4 Open Ticket



To open a previously designed ticket, which would have been saved as a textfile, click on the <Open Ticket> button with the mouse. This will open a window, similar to that shown below.

Select the required ticket layout with the mouse and then click on the <Open> button. The selected ticket will now be loaded into the editor. It is possible to download this design to the Flowmeter-Display or to make modifications to it.

Opening a Ticket will overwrite any current layout displayed by the editor.



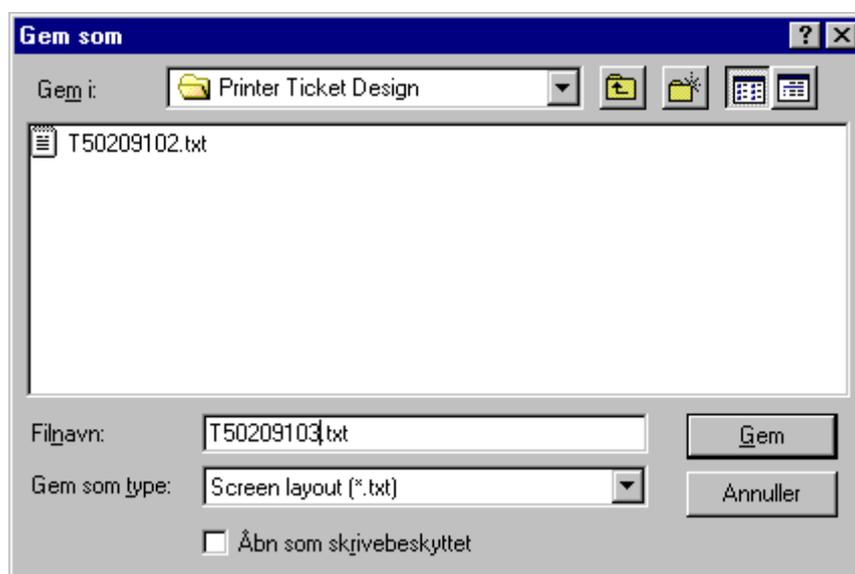
2.5 Save Ticket



A ticket design can be saved as a text file, either on the PC hard disc or onto a floppy disc. To do this, click on the <Save Ticket> button, and a window, similar to that shown below, will appear on the screen. Using this window, it is possible to choose the disc type and folder in which the layout is required to be saved.

It is now possible to either overwrite an existing file, or to key in a new filename. The file is then stored on the disc by clicking the <Save> button. The file will be automatically given the extension ".txt".

If a new file is saved with an existing filename, the old file will be overwritten.



2.6 Exit



To close the program, click on the <Exit> button. A click on the cross in the upper right corner will also shut down the program.

If the program is closed without saving, any changes made to the current design of ticket layout will be lost.

2.7 Printer Setup

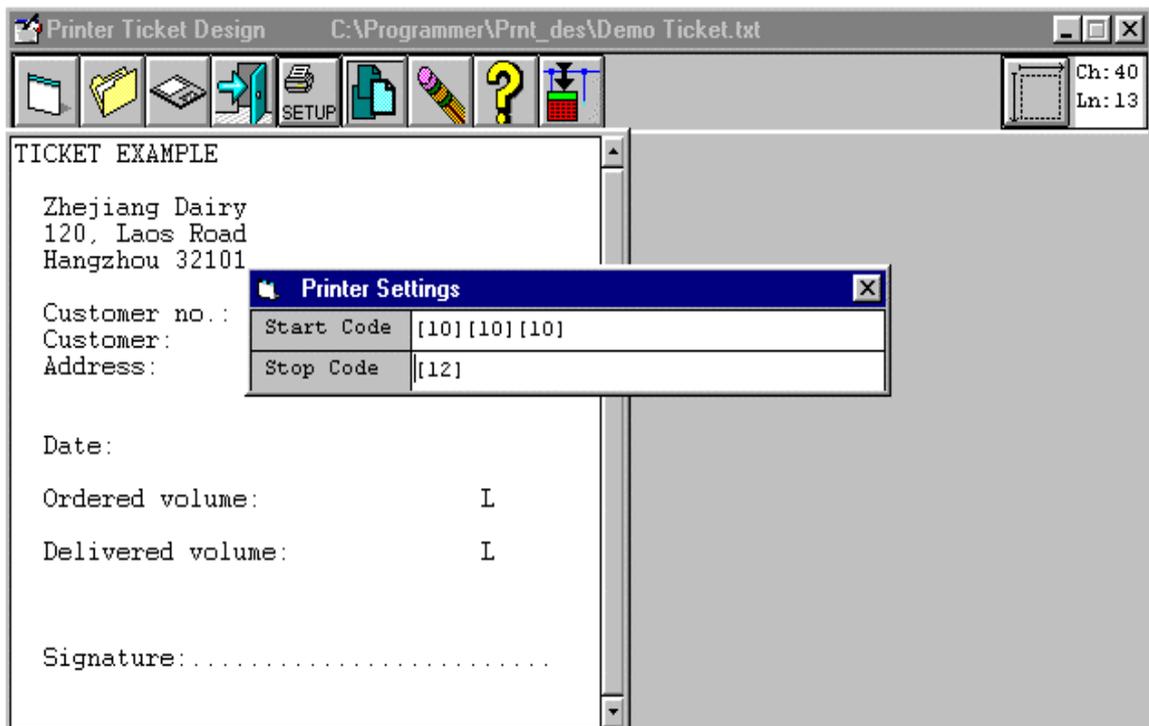


On most printers, it is possible to command the printer to perform various actions, by sending control codes to it via the RS232 connection. Examples of such actions might be for changing the character set, initialising the printer, or to execute an auto cut of the paper.

Clicking the <Printer Setup> button activates a window, into which it is possible to key in a start code and a stop code. The start code is sent to the printer as the first data, each time a printout is performed from the PD 4000/340 Flowmeter Display. The stop code is sent as the final data, every time a printout is performed.

In addition to all the printable characters, which are directly accessible, it is possible to key-in ASCII numbers by typing the decimal number for the character on the numerical keyboard while holding down the ALT key (e.g. "ALT 10" = Line Feed). The decimal number will be shown in the text box framed by "[" and "]".

The ESC function is inserted by pressing the Escape key and the CR function is inserted by pressing the Enter key.

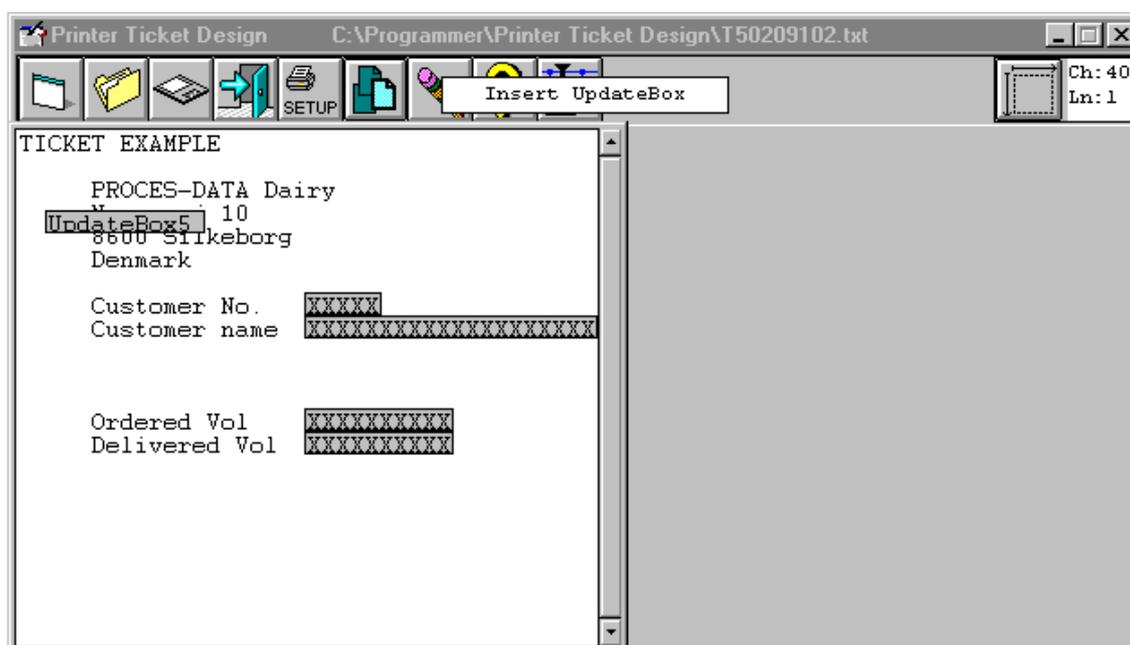


2.8 Insert Update box



The inclusion of variable data, derived from the PD 4000/340 Flowmeter-Display, for printing on a ticket, is achieved by placing update boxes within the ticket design layout. These update boxes are normally positioned adjacent to text labels, defining the kind of data to be printed, such as VOLUME or SETPOINT for example.

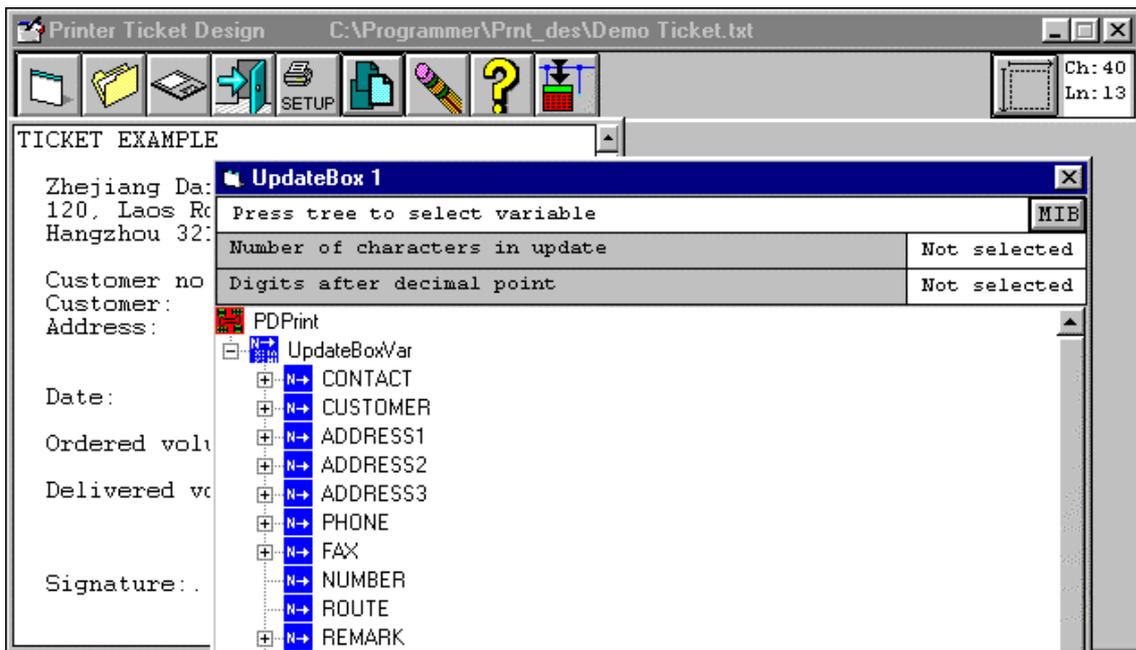
A click on the Insert <Update box> button, will insert an update box in design editor. To reposition the box, drag it, while pressing and holding the left hand mouse button, to the position where the variable is to be printed, and then release the mouse button.



When the update box has been placed in the desired position, a variable has to be assigned to it. To do this, the right hand mouse button should be clicked while the pointer is over the update box. This will open a window on the screen, containing three update fields (see figure on the following page).

The first line is reserved for the identifying name of the required variable. A click with the left hand mouse button on the adjacent <MIB> button, will display a graphical tree structure, containing available variables to use. To move down through the levels in the tree structure, click on one of the "+" signs. To move up one level, click on the appropriate "-" sign.

The variables, which are available in the design program, are found in VIGO in the "PDPrint.UpdateboxVar" definition.



The PD 4000/340 Flowmeter-Display contains a customer database with up to 1200 elements. To enable download of data to this customer database, a PC program called Customer Database is required. For further information about the Customer Database program, refer to the Customer Database Manual ref. no. 502 092.

The variables listed below are only available if the customer database has previously been downloaded from the Customer Database program.

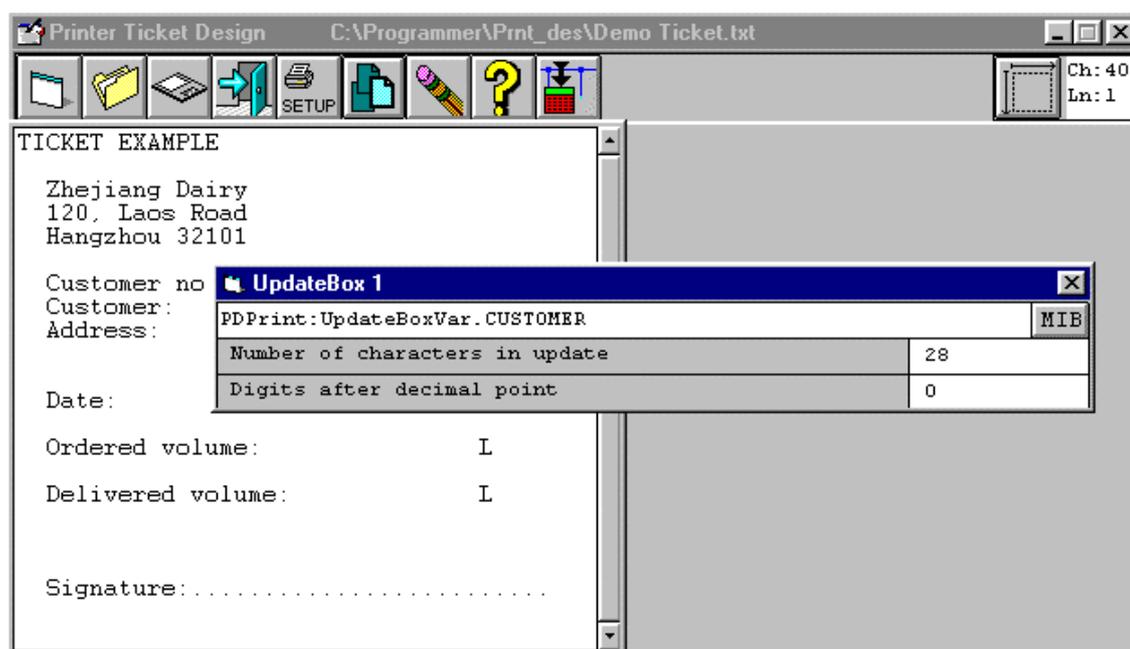
[CONTACT]	Name of contact person	
[CUSTOMER]	Name of customer	
[ADDRESS1]	Line 1 in a customer address	
[ADDRESS2]	Line 2 in a customer address	
[ADDRESS3]	Line 3 in a customer address	
[PHONE]	Telephone number	
[FAX]	Fax number	
[NUMBER]	Customer number	
[ROUTE]	Route number	
[Remark]	e.g. remarks about the media	28 characters
[Info]	e.g. information about the customer	28 characters

The variables listed below are contained in the PD 4000/340 Flowmeter-Display. These variables are always available, no matter whether the customer database has been downloaded or not.

[DATE]	The actual date from the Set Clock menu in the Flowmeter-Display
[TIME]	The actual time from the Set Clock menu in the Flowmeter-Display
[ERROR3]	An event error code from the last measurement e.g. "Power Fail"
[AV_TEMP]	Average temperature of the last measurement
[TOTAL]	Total volume
[VOLUME]	Volume of the last measurement
[SETPOINT]	Setpoint value

One of the variables described above can be selected by double clicking on the blue field in front of the variable name. This will insert the selected variable name e.g. CUSTOMER, in the first line of the Update box window.

The number of characters and decimal places required for the printed variable must be keyed into the boxes below the variable name. When the Enter key is pressed, the variable selection window will disappear, and the updatebox will now be sized for the defined number of characters.



2.9 Delete Update box

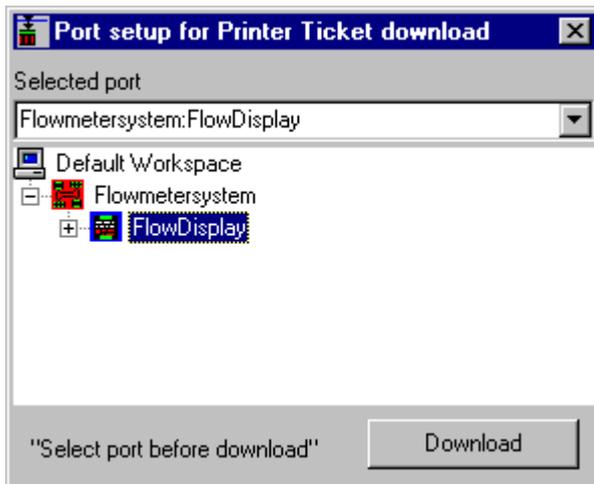


To remove an update box from a ticket layout, the Delete <Update box> button should be selected. This will change the mouse pointer icon to an eraser symbol. Pointing and clicking on an update box with the left hand mouse button, will delete it.

2.10 Download Ticket



To store the complete ticket layout in the PD 4000/340 Flowmeter Display, click on the <Download Ticket> button. The following picture is shown



Left click the *Flowmetersystem* and then leftclick the *FlowDisplay* node. When the *FlowDisplay* node is selected it will become blue. Left click the <Download> button, and the download will proceed.

3 Installation

3.1 VIGO

Printer Ticket Design uses the VIGO program, for communication with the PD 4000/340 Flowmeter-Display. It is therefore necessary to install VIGO 4.3 or higher prior to installation of the Printer Ticket Design program and the PC/P-NET Interface card.

To install VIGO 4.3 or higher, the instructions included in the installation program should be followed. For further details about the VIGO system, refer to the VIGO Users Manual, ref. no. 502 086.

3.2 Printer Ticket Design

To install the Printer Ticket Design program on a PC, follow the instructions below.

3.2.1 Close down the VIGO program

3.2.2 Installation of Printer Ticket Design

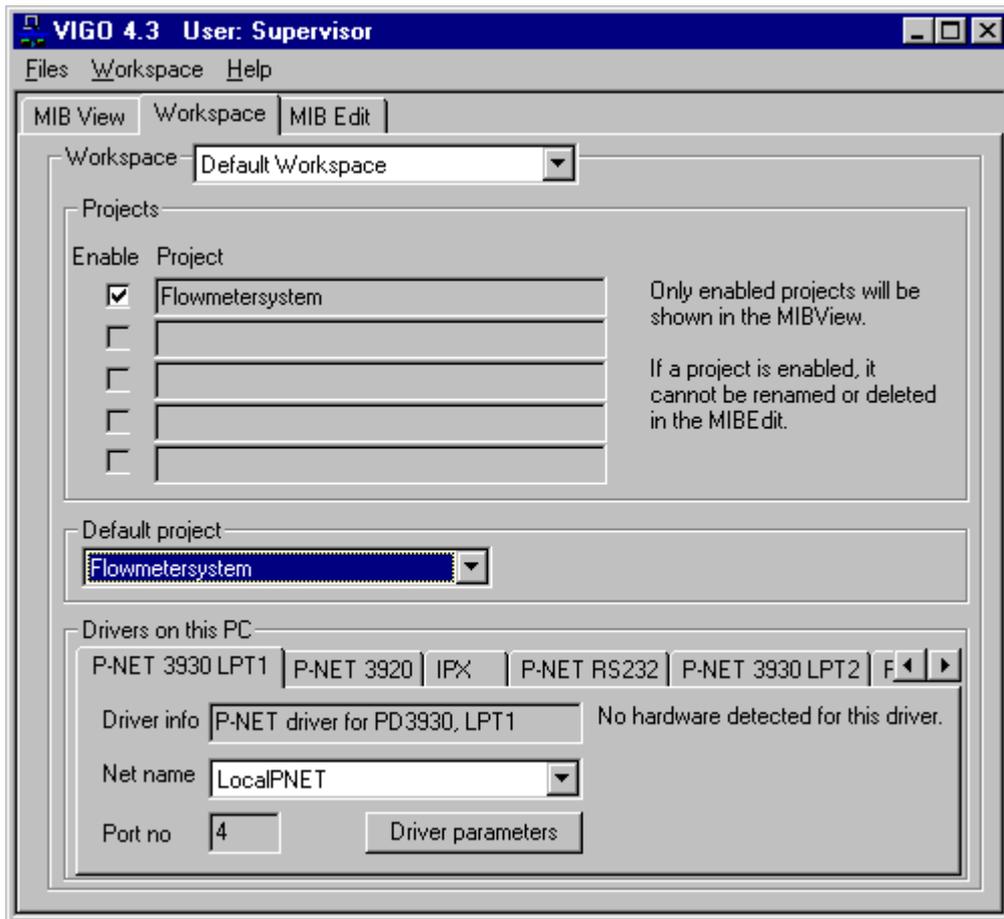
- a) Download the Printer Ticket Design program from www.proces-data.dk
- b) Run Setup.exe in WinZipextractpath\disk1
- c) Follow the instructions given by the installation program, and Printer Ticket Design program will be installed on your system.

3.2.3 Start the program.

Go into the <Start | Programs | PDFlow> and click with the left hand mouse button on the "Printer Ticket Design" icon.

3.2.4 Setup VIGO

VIGO is now started, click with the left hand mouse button on the minimized VIGO program, select the workspace tab, on the workspace tab select the P-NET 3920 or the P-NET PD 3930 tab depending on your PC/P-NET interface installation.



Click on the driver parameters and key in 1 in the field node address, and 6 in the field No of masters.

Press the <OK> button, the Printer Ticket Design program is now ready to be used.