

# Appendix B: Printer Notes

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## General Troubleshooting

“My printer is not working.”

When this happens, there are many possibilities as to what is wrong. Your first job is to try to determine the stage in the printing process where the problem occurs. First, check to see if the printer will print a test page. Click on Start | Settings | Printers. Right click on the printer and select properties. On the General tab will be a button, “Print test page.”

If this works, you know the problem lies somewhere in the communication between Wintix and your printer.

If it does not pass the test, some possible problems are:

- You may not have paper in your printer in the proper position.
- The cable may not be a good cable.
- The cable may not be solidly plugged in at both ends.
- You may have a bad printer port.
- The printer driver may be wrong. With a new operating system, it is particularly important to have the latest printer driver.

If the printer does pass this test, you now know the problem lies in the ability of Wintix specifically to communicate with your printer and not with communication between your computer and the printer in general.

### **Inkjet and laser printers**

Inkjet and laser printers are wonderful for reports, receipts, and labels, but you might not like the results for tickets. The reason is that your customers will buy tickets 1 or 2 at a time. These printers print one page at a time. Also, laser jet printers will only handle letter stock. They will jam if you try to print on something heavy like ticket stock. As a final frustration, the printer requires a half inch margin at the top of every page.

If you are planning to print tickets with these printers, you will need custom stock – you cannot use continuous form ticket stock. In the label designer, set the top margin of the page to be about one half inch. Look at the output. The next step is to design your artwork around this. Talk to your local printers and designers and show them where you want the perforations.

You will find this kind of ticket attractive, reasonably priced, and quickly produced. The print quality is excellent. There is only one word of warning: Make sure your laser printer will handle the card stock you are selecting. Look in the printer's manual. Most laser printers will not handle anything heavier than 30 pound stock (ordinary letter paper). You may need a lighter card stock.

### **Hewlett Packard Jet Direct ports**

Hewlett Packard has an interesting little gadget called a “Jet Direct” port. This is a network station – but without the computer. You get more printer ports but do not to buy more computers. It sounds like a great idea until you try to print from a DOS based program like Tixsales. Then, you discover that the Jet Direct card cannot be mapped to a LPT port.

The trick is to name the network printer port (under the Windows icon) to be “lpt2” (lower case). This tricks DOS into thinking that the Jet Direct port is an ordinary printer port.

For more information on this work-around, go to  
[www.hp.com/go/cposupport](http://www.hp.com/go/cposupport)

Get document BPJ05363 titled “Work around for DOS port capture.”

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### Thermal Printers

Dot matrix printers are cheap, but they are noisy and slow. If this has been bothering you, thermal transfer printers are the answer. There are several different brands and most ticket companies produce stock for these printers. They are not cheap. The printers cost \$535 to \$1,800 and the ticket stock is 3 to 6 cents each. What's a little money when your sanity is at stake?

Several companies make these kinds of printers: Boca, Practical Automation, Eltron/Zebra, and Datamax.

#### **Boca**

Boca offers high end models. Boca offers options like two kinds of ticket stock in the same printer, 32 bit RISC processing, ticket sizes up to 8½ x 11, and HPGL emulation. Without a cutter, they are much cheaper.

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*If you are using a Boca as a windows printer, use the HP Laserjet2P print driver. Use Landscape orientation. Select Envelope - Monarch as paper size and the width to be set up as 5.53.*

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*If you have an older Boca that uses serial port communication, you may have a problem with long runs of tickets. The symptom is that every 20 or so tickets, the printer will skip printing a couple tickets. The technical description of the problem is buffer overrun. The solution is to set the flow control (in the Windows printer setup) to xon/xoff.*

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#### **Warning:**

*Make sure you check with your ticket supplier about the stock. Let your supplier know you are using a Boca. If you are using the 300 dpi printhead, your Boca will require an extra smooth coating. Failure to use the smoother coating will result in premature print head wear (not covered under the warranty). For more information, consult Boca.*

*Generally, we recommend the 200 dpi printhead. A ticket printed at 200 dpi looks about the same as if it came out of a copier.*

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*300 DPI looks like it came from a laser printer. 200 DPI is good enough for most uses.*

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### ***Practical Automation***

Practical Automation also produces excellent products. The lowest price for a Practical Automation printer is \$1640.

### ***Datamax***

Datamax is a new company in this industry. But, they are old hands in the thermal printing and bar code industry. A Datamax E-class is about \$535.

### ***Eltron***

We used to enthusiastically recommend Eltrons. They were cute, inexpensive, and reliable. Then, Eltron was bought by Zebra. Quality took a nose dive shortly afterward. Hopefully, this will change in the future.

There are still a lot of older Eltrons that print reliably, year after year. The model we recommend are the direct thermal. The current prices are \$595 (plus shipping). They include a black line sensor and 1,000 blank tickets. The '22 prints only 2 inch wide tickets. The '42 model will print both 2 inch wide tickets and 4 inch wide tickets. It takes about 3½ seconds to print the 5½ ticket.

The type of stock commonly used is 5½" wide and 2 inches high. This is the show business standard. This works fine in Eltron printers. However, because the 2642 Eltron printers will print 4" wide, you can also use different stock which is 4" wide. This is handy if you plan on printing things like extra wide tickets or name badges.

Eltron/Zebra printers are suitable for box offices that print only a couple hundred or so tickets a day. If you can get along without a cutter, Eltron is the way to go. If you need a cutter, have lines of customers at the window, or need high speed printing, Boca is the way to go.

### Troubleshooting Thermal Printers

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If you are having trouble printing with a thermal printer, try the following:

1. Check your Ticket setup menu. With Wintix, most organizations use the Windows printer setup. Therefore, the ticket printer type needs to be set to "Windows printer."  
If you set it at anything else, the computer attempts to talk to the printer in the EPL, FGL, or line printer language. If this is what you want, fine. We say this because most organizations (especially in the beginning) will use the Windows printer settings.
2. Make sure the cable is connected to the correct printer port.  
Often overlooked - especially on a network.
3. Will the printer print a test page? This HAS to work. If it doesn't work, try deleting the printer port and reinstalling it.
4. If you are not using the Windows printing system, make sure any commands sent to a thermal printer are in capital letters.  
Commands are anything within the "<" and ">" symbols on Bocas and Practical Automation or after the "A" on Eltrons.
5. If you are using a serial port for the printer, you will need a null modem (or null modem cable).
6. Eltrons have a permanent memory that stores settings. If this gets wrong data, sometimes nothing will print. Switching a printer A-B switch is the most common cause of this. If you think this has happened, you need to erase the memory. The way to do this is to take the battery out for a minute or so. When you plug it back in, the settings will return to their defaults. You will need to send the "Q" and "q" commands again.

**Worn out printhead**

Thermal printers do not use ink or ribbons. Instead they use a special, heat sensitive coating on the surface of the paper. This passes under a hot printhead and turns the coating black.

When enough ticket stock has passed under the printhead, it will wear out. The life of a printhead is from 300,000-500,000 tickets. Printhead wear shows up as white streaks where there should be black lettering. Here is a sample:



### Datamaxes

Datamax printers have turned out to be well adapted to use in a box office. The one big advantage is that they have both high end as well as inexpensive models.

The S-class is their high end line. They come with and without cutters, counter and desktop models. At this time, the S class are character based printing (this is faster, but has no pretty, True Type fonts)

The E-class is not as fast and costs about \$535.00. It supports text and Windows printing.

If you have a Windows XP machine and have an E-class printer and want to use the DTPL (default text mode), set up the printer port using the Datamax Pass-Thru driver. This driver sends only what it is told to – nothing more and nothing less. With this driver, you can send the character 2's that the printer needs.



## Setting up a ticket printer with “Windows printing – standard”

*Windows means point and click, it does not mean it's easy.*

Wintix is a 32 bit program, built from Microsoft's Visual Studio. Like word processors and spreadsheets, it follows the protocol for Windows printing. That means:

1. Programs do not talk directly to the printer any more. Programs talk to the Windows printing system which talks to the print driver which talks to the printer.
2. Each printer icon contains information about the printer. This includes: which workstation on the network, which printer port, which driver, paper size and orientation, and more.
3. Each “document” – whether a ticket or report contains the printer it is going to, paper size, and the text.

So, let's assume you want to send your tickets to a printer. First, you need to add the printer. Click on the “Add printer” icon and go through the steps. If you are adding a ticket printer to a network, make sure they all have the same name. When you get done, you **have** to be able to click on the “Print test page” and get the test page printed.

Set the paper size to be the same as your ticket size. With Windows, set it as a custom size. Give it a width of 200 and a length of 550 – Landscape orientation. With XP, click on File, Server properties, and Create a new form. Give it a width of 2” and a length of 5½”.

Then, start Wintix. Click on File, Ticket setup. Select the “Windows printer” as the Ticket printer type. Click on the Windows printer setup button. You will be in the label designer.

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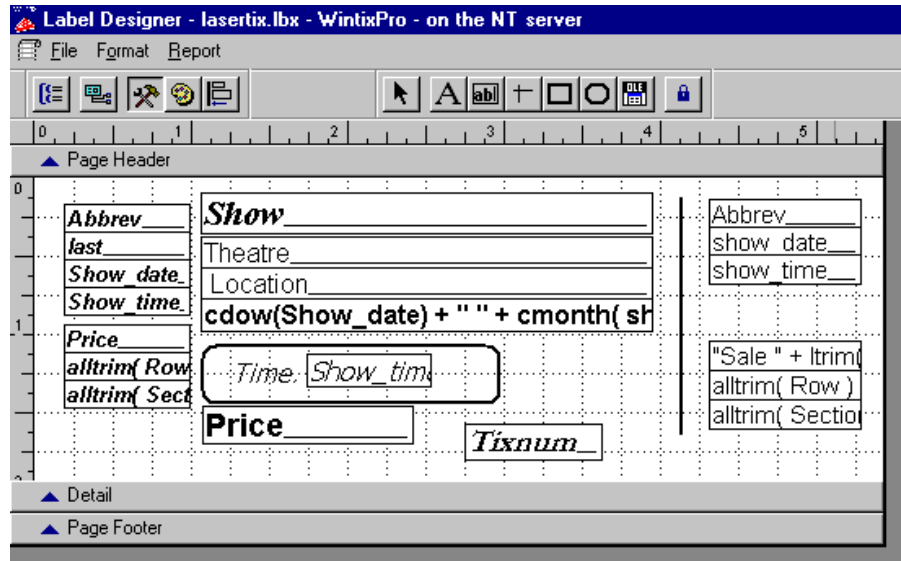
*If you are using a Boca as a windows printer, use the HP Laserjet2P print driver. Use Landscape orientation. Select Envelope - Monarch as paper size and the width to be set up as 5.53. Make sure the detail band is set at 4 inches high.*

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Label designer for Windows tickets

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*To set the paper size, click on File | Page setup | Print setup. Select the proper printer and select the proper paper size. First though, the correct paper size needs to be put in the printer's icon properties. The orientation should be landscape. Then, save the information. Click on File, Close and print a test ticket. It will default to the correct printer and the proper paper size. All you need to do is press enter and the ticket will print.*

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### **Paper size problems:**

If your printer prints every other ticket, Windows is thinking that you have enough space on the page for 2 tickets. The solution is to drag the detail band down so that only 1 ticket will be on a page.

If you get a message, "Detail band is too large for the page," you need to adjust either the detail band or paper size. The height of the detail band (plus the header and footer) must be less than the height of the page.

**Citrix printer problem with page orientation**

Citrix is a remote access application. It has been so successful that Microsoft purchased the code. Microsoft released it as a product called, "Terminal Services." This evolved into, "Remote desktop."

The original product is called, Metaframe. It offers some things like load balancing that make it very useful for organizations spread out over a wide area and using multiple applications on the same server. Our customers who use Metaframe say the same thing, "It's expensive, but it's worth it." It also works well when you have Macintoshes on your network.

**Symptoms:**

A printer will work fine connected to a local printer. Once Citrix is started, the tickets will insist on printing in portrait mode.

**Solution:** Citrix picks up the default settings for that print driver. Solution: modify, in Citrix, the print queue to use landscape and monarch paper size. Then, Citrix will pick up the printer settings from the Citrix print queue. When it prints, it will be in landscape mode - the way it's supposed to.

Each remote user will need to set up their own print queue this way.

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### Windows printer notes

The following variables are available when printing with the **Windows** printer format:

<b>Variable name</b>	<b>Default value</b>
Show	
"THIS IS THE TITLE OF THE SHOW"	Theatre
"Theatre Name"	Location
"Theatre Location"	Show_date
"01/01/01" – as a date type variable	Show_time
"Time"	Abbrev
"Abbreviation"	Last
"Last Name"	First
"First Name"	Price
"Price"	Sale_num
999999	Row
"A"	Column
"1"	Section
"Section"	Aisle

"Aisle"  
ShowRemark

"Remarks for the performance"  
Pay\_Type

"Payment Type"  
Chart

.t.  
TixNum

"123"  
TicketNumber

"1234589860"

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*You can also access other variables in the other files. However, you need to access them by the full name of the variable. An example would be: Customer.Phone*

*See appendix A for a list of files and the variables within.*

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A date field can be displayed in different ways with different functions:

**Variable**

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**Displays as**

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show\_date

10/25/15 – the default display  
dtoc(show\_date)

10/25/15  
cdow( show\_date )

Tuesday  
cmonth( show\_date )

September  
str( day( show\_date ),3,0)

25  
str( year( show\_date ),5,0)

2015  
mdy( show\_date )

September 25, 15  
dmy( show\_date )

25 September 15

These variables can be combined as follows:

```
cdow(Show_date) + " " + cmonth( show_date) +  
str(day(show_date),3) + ", " + str(year( show_date),4)
```

Becomes:

Tuesday September 25, 2015

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*The date can also change its display depending on what region is set up under the Windows regional settings. For instance, you can display the day of the week as Tuesday, Dienstag, Mercredi, or Miercoles. If you have a double byte operating system, you can display Chinese, Japanese, and Korean too.*

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*In order for this to work, you must have the proper Windows support loaded.*

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### Displaying credit card numbers – in version 3

Note: if you are using Wintix version 4, you do not need to worry about this section. Wintix, Webtix, and Tixsales already have the card numbers stored in this manner. All you need to do is ask for the field, mainsale.CardNumber

If you are still using version 3, you need to do this. A credit card field needs to be displayed according to the rules of your bank. Usually, they specify that only the last 4 numbers are to be displayed. What you need to do is tell the program to only display the last 4 numbers of the CardNumber field. Do it like this:

```
***** ***** ***** ` + right( trim( mainsale.CardNumber ), 4 )
```

If it will be part of FGL codes, in text mode:

```
<RC100,100>***** ***** ***** { right( trim( mainsale.CardNumber ), 4 ) }
```

As part of a FRX or LBX field:

```
***** ***** ***** " + right( trim( mainsale.CardNumber ), 4 )
```

Yields a card number display similar to this:

```
***** ***** ***** 1234
```

Warning: if you are still using Wintix version 3, and taking credit card numbers, you are in violation of the PCI regulations. You must follow the guidelines of the PCI standard. If you don't, you can be put out of business in a matter of minutes. The specifications are at <https://www.pcisecuritystandards.org/tech/index.htm> Among other things, you need a firewall with "stateful packet inspection," anti virus software, security procedures, and a policy manual. AmbironTrustWave has a short list at <http://www.atwcorp.com/pciDataSecurityStandard.php>

Complying with the PCI regulations is difficult and penalties for non-compliance are high. A service like Authorize.net or MerchantPlus.com makes a lot of sense. You avoid the regulations by not keeping the card numbers on your computer or in your office.



***For FGL, DPL, and EPL printers only***

This section is for printers using the character based languages. These are used in 2 situations: older printers, and professional box offices (where speed is very important).

You can imbed fields in with the additional commands for your ticket printer. These fields must be between curly braces. No spaces are allowed. These fields can be anything in the open databases such as:

<RC20,400>{customer.Phone}

Boca or PA

A20,400,1,2,1,1,N,"{customer.Phone}"

Eltron/Zebra

4911A1200300090{customer.Phone}

Datamax

If you are going to use a date field, enter it as:

<RC20,400>{dtoc(mainsale->Today\_Date)}

Boca or PA

A20,400,1,2,1,1,N,"{dtoc(Today\_Date)}"

Eltron/Zebra

4911A1200300090{dtoc(Today\_Date)}

Datamax

Or, you can use what is passed to the ticket printing module. Internally, this is an array called aTicket. **Note: the aTicket array is not available for labels or receipts.** Here is how to call the elements:

<RC20,400>{aTicket[10]}

Boca or PA

A20,400,1,2,1,1,N,"{aTicket[10]}"

Eltron/Zebra

4911A1200300090{aTicket[10]}

Datamax

This will put the field for the seat row on your ticket.

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Here's an example of the sale number displayed as a 3 of 9 bar code on a Datamax E class:

```
4A0000004200040{str(aTicket[9])}
```

Here are numbers for the other elements of aTicket:

1 = SHOW

10 = ROW

2 = THEATRE

11 = SEAT

3 = LOCATION

12 = SECTION

4 = SHOW DATE

13 = AISLE

5 = SHOW TIME

14 = PERFORMANCE REMARK

6 = ABBREV

15 = PAY TYPE

7 = LAST NAME

17 = FIRST NAME

8 = PRICE

18 = TICKET FORMAT NAME

9 = SALE NUMBER

19 = TICKET NUMBER

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## **Printer prints from Wintix but not from Tixsales using a Dell Optiplex**

We fixed it!!!!

The problem all along, Dell's LPT ports can be configured in the BIOS, when you startup the Dell and hit F2 for the BIOS you can go in and enable/disable the LPT port and you can also select what mode it uses, default is PS/2 mode, the other options are EPP and ECP.

What tipped me off to this was going and buying a 2nd LPT port, I noticed when I installed the 2nd port it was installed as a EPP port and it worked right off the bat with Tixsales.

So instead of just calling that the solution and I went and removed the 2nd LPT port and went into the BIOS and changed the onboard LPT port from PS/2 to EPP and it works perfect!

I wonder if this is the "known problem" with Dell Optiplex's... Because they all come with the default setting of PS/2