
Subject: Window Contents Directly to Printer
Posted by [davidf](#) on Wed, 18 Mar 1998 08:00:00 GMT
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Hi Folks,

I've had a number of you ask how to send the contents of a graphics window directly to the printer in IDL 5.0 like you used to be able to do in IDL 4.0.

Thanks to some hints from the RSI Tip of the Week, I've figured out how to do this. (Their tip shows you how to create a macro for your IDLDE environment. It's a good tip, except that the program has several lines of unused code in it, which always makes me nervous.) Here is a very simple program named Print_It. You simply give it the window index number of the window you want to print and it sends the window contents directly to the PRINTER.

```
Window, 5, XSize=200, YSize=300
TV, Dist(200, 300)
Print_It, 5
```

If you don't give it a parameter, it uses the current window by default.

I leave it as an exercise for the reader to figure out how to print in landscape mode. And if someone can figure out how to center the window contents on the page, I'll send them my favorite Barry Lopez book, *Desert Notes/River Notes*. :-)

Cheers,

David

```
*****
```

```
PRO Print_It, wid
```

```
; This program sends the contents of the specified
; window to the default printer. The current window
; is used if a window index number is not provided.
```

```
IF N_Params() EQ 0 THEN wid = !D.Window
```

```
; Make the window current. Get contents.
```

```
WSet, wid
```

```

contents = TVRD()

; Get the sizes of the window.

xsize = !D.X_Size
ysize = !D.Y_Size

; Get the sizes of the PRINTER device.

thisDevice = !D.Name
Set_Plot, 'PRINTER'
Device, Scale_Factor=1
pxsize = !D.X_Size
pysize = !D.Y_Size

; Calculate a scale factor for the printer.

scalefactor = (Float(xsize) / pxsize) > (Float(ysize) / pysize)
Device, Scale_Factor=(1.0 / scalefactor)

; Print it.

TV, contents
Device, /Close_Document

; Clean up.

Set_Plot, thisDevice
END

```

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Subject: Re: Window Contents Directly to Printer
Posted by [Kirt Schaper](#) on Thu, 19 Mar 1998 08:00:00 GMT
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David Fanning wrote:

- >
- > Hi Folks,
- >
- > If anyone is following along or thinks this program is the
- > least bit useful, here is the final PRINT_IT program that

> Armand and I have come up with. I got some help from the
> usual anonymous lurkers, as well. :-)

Just to ensure that this horse is totally beaten into the ground,
I think you should change the following lines to avoid the problem
of offscreen or obscured X-windows:

> ; Make the window current. Get contents.
>
> WSet, wid
> contents = TVRD()

If you the following code snippet, you won't get garbage:

```
; Make the window current. Get contents.  
window,/free,/PIXMAP,XSIZE=!d.x_size,YSIZE=!d.ysize ; create a temp  
pixmap window  
device,copy=[0,0,!d.x_size,!d.y_size,0,0,wid] ; transfer wid  
contents  
contents = tvrd(0,0,!d.x_size,!d.y_size) ; grab pixmap  
contents -- no offscreen problem  
; just for us old WAVE programmers, use ALL the tvrd parameters :-{  
wdelete, !d.window ; delete the temp  
pixmap window  
wset, wid ; make the window  
current
```

--

Stop explaining, it hurts too much!

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MPLS, MN 55417 | URL: http://pet.med.va.gov:8080

Subject: Re: Window Contents Directly to Printer
Posted by [davidf](#) on Fri, 20 Mar 1998 08:00:00 GMT
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Sorry, I wanted to make one more point.

Samuel Haimov writes:

> Long time ago I tried to use PRINTER device and I found that
> the quality of the print is not very good.

Remember that what the Print_It program does is send a *screen dump* of the graphics window to the printer. That is, by definition, low resolution (i.e, 72 pixels per inch as compared to 600 pixels per inch for most PostScript printers).

If you want high quality PostScript output, look at a program like XWindow on my web page, a "smart" graphics window that can send its contents to a PostScript file (or to the PRINTER if you like, with 30 seconds of modification) in the very highest resolution mode.

My book describes in quite a bit of detail exactly how this is done.

Cheers,

David

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Subject: Re: Window Contents Directly to Printer
Posted by [davidf](#) on Fri, 20 Mar 1998 08:00:00 GMT
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John Smith aka Samual Haimov (jsmith@company.com) writes:

> Long time ago I tried to use PRINTER device and I found that
> the quality of the print is not very good.
>
> I tried it again now using print_it and as before it came out
> with poorly printed labels, etc.
>
> Am I not doing something right or as I suspected before this
> is what you get when the video is used ?
>
> The reason I have some doubts about doing something wrong is that
> instead of printing directly to the printer I get an encapsulated
> postscript file xprinter.eps

Uh, this wasn't the BEST program I ever wrote, but I'm pretty darn sure it doesn't produce encapsulated PostScript output. :-)

Try renaming the file to print_it_darn_it.pro. Compile the file like this:

```
IDL> .Compile print_it_darn_it
```

Then try to run the Print_It program.

```
IDL> Window, XSize=300, YSize=300
IDL> TV, Dist(300)
IDL> Print_It, 0
```

Now you should be running the write Print_It program. :-)

I think you were finding the wrong Print_It program. To see which program you have, type this:

```
Help, /Source
```

It will tell you what directories your compiled procedures and functions were found in.

Cheers,

David

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Subject: Re: Window Contents Directly to Printer
Posted by [John Smith](#) on Fri, 20 Mar 1998 08:00:00 GMT
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Kirt Schaper wrote:

```
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> David Fanning wrote:
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>> usual anonymous lurkers, as well. :-)
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> Just to ensure that this horse is totally beaten into the ground,

.... more good stuff deleted

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I tried it again now using print_it and as before it came out with poorly printed labels, etc.

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The reason I have some doubts about doing something wrong is that instead of printing directly to the printer I get an encapsulated postscript file xprinter.eps

Samuel Haimov
haimov@uwyo.edu (ignore the header name and email)

Subject: Re: Window Contents Directly to Printer
Posted by [Kelly Dean](#) on Fri, 20 Mar 1998 08:00:00 GMT
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Great work guys -- I like this. It is set up as a PrintScreen macro on my version of IDL 5.0.

However, I just wanted to point out a typo:

```
window,/free,/PIXMAP,XSIZE=!d.x_size,YSIZE=!d.ysize
```

should be (y_size):

```
window,/free,/PIXMAP,XSIZE=!d.x_size,YSIZE=!d.y_size ; create a temp
```

Kelly
