

Problem printing at lower dpi

Source:

<http://www.tech-archive.net/Archive/Development/microsoft.public.development.device.drivers/2005-06/msg00373.1>

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 - *Date:* 7 Jun 2005 19:41:20 -0700
-

Hi,

My virtual printer driver (to png image) has problems printing at lower dpi of say 100 or 200 dpi. There are mainly 2 problems:

1. When printing some documents like Google's home page in color and 100 dpi, there's a blank patch (bitmap data is null) between the last line of word and the page footer.
2. When printing powerpoint slides in color at 100 or 200 dpi, it says that it is unable to print due to a problem with the printer setup. No problems with 300 dpi though.

I'm not sure where the problem is, but it's definitely at the driver side and not at the image conversion side. Below is my gpd file. Hope someone can enlighten me. Thanks!

```
*%
*% Copyright (c) 1997 - 1999 Microsoft Corporation
*% All Rights Reserved.
*%
*GPDSpecVersion: "1.0"
*GPDFileName: "VPDIP.GPD"
*GPDFileVersion: "1.0"
*Include: "StdNames.gpd"
*ModelName: "My Image Printer"
*MasterUnits: PAIR(1200, 1200)
*ResourceDLL: "svrres.dll"
*PrintRate: 2
*PrintRatePPM: 2
*PrintRateUnit: PPM
*PrinterType: PAGE
*rcInstalledOptionNameID: 443 *% Installed
*rcNotInstalledOptionNameID: 444 *% Not Installed
*MaxCopies: 99
*OutputOrderReversed?: FALSE
```

Problem printing at lower dpi

```
*Feature: Orientation
{
*rcNameID: =ORIENTATION_DISPLAY
*DefaultOption: PORTRAIT
*Option: PORTRAIT
{
*rcNameID: =PORTRAIT_DISPLAY
*Command: CmdSelect
{
*Order: DOC_SETUP.6
*Cmd: "<1B>&l00"
}
}
*Option: LANDSCAPE_CC90
{
*rcNameID: =LANDSCAPE_DISPLAY
*Command: CmdSelect
{
*Order: DOC_SETUP.6
*Cmd: "<1B>&l10"
}
}
}
*Feature: InputBin
{
*rcNameID: =PAPER_SOURCE_DISPLAY
*DefaultOption: MANUAL
*Option: MANUAL
{
*rcNameID: =MANUAL_FEED_DISPLAY
*Command: CmdSelect
{
*Order: DOC_SETUP.9
*Cmd: "<1B>&l2H"
}
}
}
*Feature: PaperSize
{
*rcNameID: =PAPER_SIZE_DISPLAY
*DefaultOption: LETTER
*Option: LETTER
{
*rcNameID: =RCID_DMPAPER_SYSTEM_NAME
*PageProtectMem: 4109
*switch: Orientation
{
*case: PORTRAIT
{
*PrintableArea: PAIR(9592, 12648)
*PrintableOrigin: PAIR(300, 300)
```

Problem printing at lower dpi

```
*CursorOrigin: PAIR(300, 180)
*Command: CmdSelect
{
*Order: DOC_SETUP.10
*Cmd: "<1B>&l2a8c1E<1B>*p0x0Y<1B>*c0t5760x7704Y"
}
}
*case: LANDSCAPE_CC90
{
*switch: Resolution
{
*case: Option1
{
*PrintableArea: PAIR(9754, 12710)
*PrintableOrigin: PAIR(200, 250)
}
}
*case: Option2
{
*PrintableArea: PAIR(9752, 12708)
*PrintableOrigin: PAIR(200, 252)
}
}
*CursorOrigin: PAIR(200, 12960)
*Command: CmdSelect
{
*Order: DOC_SETUP.10
*Cmd: "<1B>&l2a8c1E<1B>*p0x0Y<1B>*c0t7632x5880Y"
}
}
}
}
*Option: LEGAL
{
*rcNameID: =RCID_DMPAPER_SYSTEM_NAME
*PageProtectMem: 5230
*switch: Orientation
{
*case: PORTRAIT
{
*PrintableArea: PAIR(9592, 16248)
*PrintableOrigin: PAIR(300, 300)
*CursorOrigin: PAIR(300, 180)
*Command: CmdSelect
{
*Order: DOC_SETUP.10
*Cmd: "<1B>&l3a8c1E<1B>*p0x0Y<1B>*c0t5760x9864Y"
}
}
}
*case: LANDSCAPE_CC90
{
*switch: Resolution
```

Problem printing at lower dpi

```
{
*case: Option1
{
*PrintableArea: PAIR(9754, 16310)
*PrintableOrigin: PAIR(200, 250)
}
*case: Option2
{
*PrintableArea: PAIR(9752, 16308)
*PrintableOrigin: PAIR(200, 252)
}
}
*CursorOrigin: PAIR(200, 16560)
*Command: CmdSelect
{
*Order: DOC_SETUP.10
*Cmd: "<1B>&13a8c1E<1B>*p0x0Y<1B>*c0t9792x5880Y"
}
}
}
}
*Option: A3
{
*rcNameID: =RCID_DMPAPER_SYSTEM_NAME
*switch: Orientation
{
*case: PORTRAIT
{
*PrintableArea: PAIR(13428, 19308)
*PrintableOrigin: PAIR(300, 300)
*switch: Resolution
{
*case: Option2
{
*PrintableArea: PAIR(13424, 19304)
*PrintableOrigin: PAIR(304, 304)
}
}
*CursorOrigin: PAIR(300, 180)
*Command: CmdSelect
{
*Order: DOC_SETUP.10
*Cmd: "<1B>&127a8c1E<1B>*p0x0Y<1B>*c0t8057x11693Y"
}
}
*case: LANDSCAPE_CC90
{
*PrintableArea: PAIR(13588, 19368)
*PrintableOrigin: PAIR(200, 240)
*switch: Resolution
{
```

Problem printing at lower dpi

```
*case: Option2
{
*PrintableArea: PAIR(13584, 19368)
}
}
*CursorOrigin: PAIR(200, 19608)
*Command: CmdSelect
{
*Order: DOC_SETUP.10
*Cmd: "<1B>&l27a8c1E<1B>*p0x0Y<1B>*c0t11621x8177Y"
}
}
}
}

*Option: A4
{
*rcNameID: =RCID_DMPAPER_SYSTEM_NAME
*PageProtectMem: 4249
*switch: Orientation
{
*case: PORTRAIT
{
*PrintableArea: PAIR(9274, 12778)
*PrintableOrigin: PAIR(300, 600)
*switch: Resolution
{
*case: Option2
{
*PrintableArea: PAIR(9272, 12776)
}
}
}
*CursorOrigin: PAIR(300, 180)
*Command: CmdSelect
{
*Order: DOC_SETUP.10
*Cmd: "<1B>&l26a8c1E<1B>*p0x0Y<1B>*c0t5594x8201Y"
}
}
}
*case: LANDSCAPE_CC90
{
*PrintableArea: PAIR(9444, 12728)
*PrintableOrigin: PAIR(230, 650)
*switch: Resolution
{
*case: Option2
{
*PrintableArea: PAIR(9440, 12724)
*PrintableOrigin: PAIR(232, 652)
}
}
}
}
```

Problem printing at lower dpi

```
*CursorOrigin: PAIR(200, 13788)
*Command: CmdSelect
{
*Order: DOC_SETUP.10
*Cmd:
"<1B>&l26a8c1e-500Z<1B>*p0x0Y<1B>*c0t8129x5714Y"
}
}
}
}
*Option: ENV_10
{
*rcNameID: =RCID_DMPAPER_SYSTEM_NAME
*PageProtectMem: 4109
*switch: Orientation
{
*case: PORTRAIT
{
*PrintableArea: PAIR(4356, 10200)
*PrintableOrigin: PAIR(300, 300)
*CursorOrigin: PAIR(300, 160)
*Command: CmdSelect
{
*Order: DOC_SETUP.10
*Cmd:
"<1B>&l81a8c1e230Z<1B>*p0x0Y<1B>*c0t2614x6648Y"
}
}
*case: LANDSCAPE_CC90
{
*PrintableArea: PAIR(4356, 10200)
*PrintableOrigin: PAIR(300, 300)
*CursorOrigin: PAIR(200, 11100)
*Command: CmdSelect
{
*Order: DOC_SETUP.10
*Cmd:
"<1B>&l81a8c1e-220Z<1B>*p0x0Y<1B>*c0t6480x2734Y"
}
}
}
}
*Option: ENV_DL
{
*rcNameID: =RCID_DMPAPER_SYSTEM_NAME
*PageProtectMem: 4109
*switch: Orientation
{
*case: PORTRAIT
{
*PrintableArea: PAIR(4596, 9192)
```

Problem printing at lower dpi

```
*PrintableOrigin: PAIR(300, 300)
*CursorOrigin: PAIR(300, 160)
*Command: CmdSelect
{
*Order: DOC_SETUP.10
*Cmd:
"<1B>&I90a8c1e230Z<1B>*p0x0Y<1B>*c0t2758x6043Y"
}
}
*case: LANDSCAPE_CC90
{
*PrintableArea: PAIR(4596, 9192)
*PrintableOrigin: PAIR(300, 300)
*CursorOrigin: PAIR(200, 10092)
*Command: CmdSelect
{
*Order: DOC_SETUP.10
*Cmd:
"<1B>&I90a8c1e-220Z<1B>*p0x0Y<1B>*c0t5875x2878Y"
}
}
}
*Option: ENV_C5
{
*rcNameID: =RCID_DMPAPER_SYSTEM_NAME
*PageProtectMem: 4109
*switch: Orientation
{
*case: PORTRAIT
{
*PrintableArea: PAIR(7056, 9624)
*PrintableOrigin: PAIR(300, 300)
*CursorOrigin: PAIR(300, 200)
*Command: CmdSelect
{
*Order: DOC_SETUP.10
*Cmd:
"<1B>&I91a8c1e230Z<1B>*p0x0Y<1B>*c0t4234x6254Y"
}
}
}
*case: LANDSCAPE_CC90
{
*PrintableArea: PAIR(7056, 9624)
*PrintableOrigin: PAIR(300, 300)
*CursorOrigin: PAIR(200, 10524)
*Command: CmdSelect
{
*Order: DOC_SETUP.10
*Cmd:
"<1B>&I91a8c1e-220Z<1B>*p0x0Y<1B>*c0t6134x4354Y"
}
}
}
```

Problem printing at lower dpi

```
}  
}  
}  
}  
*Option: TABLOID  
{  
*rcNameID: =RCID_DMPAPER_SYSTEM_NAME  
*switch: Orientation  
{  
*case: PORTRAIT  
{  
*PrintableArea: PAIR(12600, 19800)  
*PrintableOrigin: PAIR(300, 220)  
*switch: Resolution  
{  
*case: Option2  
{  
*PrintableArea: PAIR(12592, 19792)  
*PrintableOrigin: PAIR(304, 220)  
}  
}  
*CursorOrigin: PAIR(300, 200)  
*Command: CmdSelect  
{  
*Order: DOC_SETUP.10  
*Cmd: "<1B>&l6a8c1E<1B>*p0x0Y<1B>*c0t7560x12000Y"  
}  
}  
*case: LANDSCAPE_CC90  
{  
*PrintableArea: PAIR(12600, 19800)  
*PrintableOrigin: PAIR(300, 220)  
*switch: Resolution  
{  
*case: Option2  
{  
*PrintableArea: PAIR(12592, 19792)  
*PrintableOrigin: PAIR(304, 220)  
}  
}  
*CursorOrigin: PAIR(200, 20100)  
*Command: CmdSelect  
{  
*Order: DOC_SETUP.10  
*Cmd: "<1B>&l6a8c1E<1B>*p0x0Y<1B>*c0t11880x7680Y"  
}  
}  
}  
}  
*Option: CUSTOMSIZE  
{
```

Problem printing at lower dpi

```
*rcNameID: =USER_DEFINED_SIZE_DISPLAY
*MinSize: PAIR(4680, 9000)
*MaxSize: PAIR(14040, 32767)
*MaxPrintableWidth: 14040
*MinLeftMargin: 100
*CenterPrintable?: FALSE
*PageProtectMem: 1692
*switch: Orientation
{
*case: PORTRAIT
{
*Command: CmdSelect
{
*Order: DOC_SETUP.12
*Cmd: "<1B>&1101a4d1e" %d{((PhysPaperWidth - 14040)
/ 20) }"u" %d{(PhysPaperLength / 300) - 1}
+ "F<1B>*p0x0Y<1B>*p0x0Y<1B>*c0t" %d{(((PhysPaperWidth - 598) * 6) /
10) }"x" %d{(((PhysPaperLength - 440) * 6) / 10) }
+ "Y"
}
}
*case: LANDSCAPE_CC90
{
*Command: CmdSelect
{
*Order: DOC_SETUP.12
*Cmd: "<1B>&1101a4d1e" %d{(PhysPaperLength / 300) -
1}"f" %d{((PhysPaperWidth - 14040) / 20) + 10}
+ "u" %d{(((PhysPaperLength - 21240) * 6) / 10) +
10}"Z<1B>*p0x0Y<1B>*c0t" %d{(((PhysPaperLength - 600) * 6) / 10) }
+ "x" %d{(((PhysPaperWidth - 600) * 6) / 10) }"Y"
}
}
}
*Feature: Resolution
{
*rcNameID: =RESOLUTION_DISPLAY
*DefaultOption: Option4
*Option: Option1
{
*Name: "600 x 600 " =DOTS_PER_INCH
*DPI: PAIR(600, 600)
*TextDPI: PAIR(600, 600)
*MinStripBlankPixels: 32
*SpotDiameter: 100
*Command: CmdBeginRaster { *Cmd : "<1B>*r1A" }
*Command: CmdEndRaster { *Cmd : "<1B>*rB" }
*Command: CmdSelect
```

Problem printing at lower dpi

```
{
*Order: DOC_SETUP.4
*Cmd: "@PJL SET RESOLUTION=600<0A>@PJL ENTER
LANGUAGE=PCL<0A0D1B>E<1B>*t600R"
}
}
*Option: Option2
{
*Name: "300 x 300 " =DOTS_PER_INCH
*DPI: PAIR(300, 300)
*TextDPI: PAIR(300, 300)
*MinStripBlankPixels: 32
*SpotDiameter: 140
*Command: CmdBeginRaster { *Cmd : "<1B>*v7S<1B>*r1A" }
*Command: CmdEndRaster { *Cmd : "<1B>*rC" }
*Command: CmdSelect
{
*Order: DOC_SETUP.4
*Cmd: "@PJL SET RESOLUTION=300<0A>@PJL ENTER
LANGUAGE=PCL<0A0D1B>E<1B>*t300R"
}
}
*Option: Option3
{
*Name: "200 x 200 " =DOTS_PER_INCH
*DPI: PAIR(200, 200)
*TextDPI: PAIR(200, 200)
*MinStripBlankPixels: 32
*SpotDiameter: 100
*Command: CmdBeginRaster { *Cmd : "<1B>*v7S<1B>*r1A" }
*Command: CmdEndRaster { *Cmd : "<1B>*rC" }
*Command: CmdSelect
{
*Order: DOC_SETUP.4
*Cmd: "@PJL SET RESOLUTION=200<0A>@PJL ENTER
LANGUAGE=PCL<0A0D1B>E<1B>*t200R"
}
}
*Option: Option4
{
*Name: "100 x 100 " =DOTS_PER_INCH
*DPI: PAIR(100, 100)
*TextDPI: PAIR(100, 100)
*MinStripBlankPixels: 32
*SpotDiameter: 100
*Command: CmdBeginRaster { *Cmd : "<1B>*v7S<1B>*r1A" }
*Command: CmdEndRaster { *Cmd : "<1B>*rC" }
*Command: CmdSelect
{
*Order: DOC_SETUP.4
*Cmd: "@PJL SET RESOLUTION=100<0A>@PJL ENTER
```

Problem printing at lower dpi

```
LANGUAGE=PCL<0A0D1B>E<1B>*t100R"  
}  
}  
  
}  
*Feature: ColorMode  
{  
*rcNameID: =COLOR_PRINTING_MODE_DISPLAY  
*DefaultOption: 24bpp  
*Option: Mono  
{  
*rcNameID: =MONO_DISPLAY  
*DevNumOfPlanes: 1  
*DevBPP: 1  
*Color? : FALSE  
}  
  
*Option: 24bpp  
{  
*rcNameID: =24BPP_DISPLAY  
*DevNumOfPlanes: 1  
*DevBPP: 24  
*DrvBPP: 24  
*PaletteSize: 256  
*PaletteProgrammable? : FALSE  
*Command: CmdSetSrcBmpWidth { *Cmd : "<1B>*r"  
%d{RasterDataWidthInBytes / 3}"S" }  
*Command: CmdSelect  
{  
*Order: DOC_SETUP.16  
*Cmd:  
<1B>*v1N<1B>*v1O<1B>*1184O<1B>*t13J<1B>*v18W<00030808080800FF00FF00FF0000000000>"  
+ "<001B>*v0a0b0c7i255a255b255c0I"  
}  
}  
}  
  
*Command: CmdStartDoc  
{  
*Order: DOC_SETUP.5  
*Cmd: "<1B>&u600D<1B>*r0F"  
}  
*Command: CmdStartPage  
{  
*Order: PAGE_SETUP.1  
*Cmd: "<1B>*b0M<0D>"  
}  
*Command: CmdEndJob  
{
```

Problem printing at lower dpi

```
*Order: JOB_FINISH.1
*Cmd: "<1B>E<1B>%%-12345X"
}
*RotateCoordinate?: TRUE
*RotateRaster?: TRUE
*RotateFont?: TRUE
*TextCaps: LIST(TC_CR_90,TC_UA_ABLE)
*CursorXAfterCR: AT_PRINTABLE_X_ORIGIN
*BadCursorMoveInGrxMode: LIST(X_PORTRAIT,Y_LANDSCAPE)
*XMoveThreshold: 0
*YMoveThreshold: 0
*XMoveUnit: 600
*YMoveUnit: 600
*Command: CmdXMoveAbsolute { *Cmd : "<1B>*p" %d{(DestX / 2)}"X" }
*Command: CmdXMoveRelRight { *Cmd : "<1B>*p+"
%d[0,9600]{max_repeat((DestXRel / 2))}"X" }
*Command: CmdXMoveRelLeft { *Cmd : "<1B>*p-"
%d[0,9600]{max_repeat((DestXRel / 2))}"X" }
*Command: CmdYMoveAbsolute { *Cmd : "<1B>*p" %d{(DestY / 2)}"Y" }
*Command: CmdYMoveRelDown { *Cmd : "<1B>*p+" %d{(DestYRel / 2)}"Y" }
*Command: CmdYMoveRelUp { *Cmd : "<1B>*p-" %d{(DestYRel / 2)}"Y" }
*Command: CmdCR { *Cmd : "<0D>" }
*Command: CmdLF { *Cmd : "<0A>" }
*Command: CmdFF { *Cmd : "<0C>" }
*Command: CmdBackSpace { *Cmd : "<08>" }
*Command: CmdUniDirectionOn { *Cmd : "<00>" }
*Command: CmdUniDirectionOff { *Cmd : "<00>" }
*Command: CmdPushCursor { *Cmd : "<1B>&f0S" }
*Command: CmdPopCursor { *Cmd : "<1B>&f1S" }
*Command: CmdSetSimpleRotation { *Cmd : "<1B>&a"
%d{PrintDirInCCDegrees}"P" }
*EjectPageWithFF?: TRUE
*Command: CmdSelectBlackColor { *Cmd : "<1B>*v7S" }
*Command: CmdSelectRedColor { *Cmd : "<1B>*v6S" }
*Command: CmdSelectGreenColor { *Cmd : "<1B>*v5S" }
*Command: CmdSelectYellowColor { *Cmd : "<1B>*v4S" }
*Command: CmdSelectBlueColor { *Cmd : "<1B>*v3S" }
*Command: CmdSelectMagentaColor { *Cmd : "<1B>*v2S" }
*Command: CmdSelectCyanColor { *Cmd : "<1B>*v1S" }
*Command: CmdSelectWhiteColor { *Cmd : "<1B>*v0S" }
*Command: CmdDefinePaletteEntry { *Cmd : "<1B>*v" %d{RedValue}"a"
%d{GreenValue}"b" %d{BlueValue}"c" %d{PaletteIndexToProgram}
+ "I" }
*Command: CmdSelectPaletteEntry { *Cmd : "<1B>*v"
%d{CurrentPaletteIndex}"S" }
*Command: CmdEnableTIFF4 { *Cmd : "<1B>*b2M" }
*Command: CmdDisableCompression { *Cmd : "<1B>*b0M" }
*Command: CmdEnableDRC { *Cmd : "<1B>*b3M" }
*OutputDataFormat: H_BYTE
**OptimizeLeftBound?: TRUE
```

Problem printing at lower dpi

```
*%*StripBlanks: LIST(ENCLOSED,TRAILING)
*Command: CmdSendBlockData { *Cmd : "<1B>*b" %d{NumOfDataBytes}"W" }

*CursorXAfterSendBlockData: AT_GRXDATA_ORIGIN
*CursorYAfterSendBlockData: AUTO_INCREMENT
*RasterSendAllData? : TRUE
*DefaultFont: 136
*DefaultCTT: 0
*CharPosition: BASELINE
*TTFSEnabled?: TRUE
*MinFontID: 16534
*MaxFontID: 32768
*FontFormat: HPPCL_OUTLINE
*Command: CmdSetFontID { *Cmd : "<1B>*c" %d{NextFontID}"D" }
*Command: CmdSelectFontID { *Cmd : "<1B>(" %d{CurrentFontID}"X" }
*Command: CmdSetCharCode { *Cmd : "<1B>*c" %d{NextGlyph}"E" }
*Command: CmdUnderlineOn { *Cmd : "<1B>&dD" }
*Command: CmdUnderlineOff { *Cmd : "<1B>&d@" }
*Command: CmdWhiteTextOn { *Cmd : "<1B>*v1o1T" }
*Command: CmdWhiteTextOff { *Cmd : "<1B>*v0o0T" }
*MinGrayFill: 1
*MaxGrayFill: 100
*Command: CmdSetRectWidth { *Cmd : "<1B>*c" %d{(RectXSize / 2)}"A" }
*Command: CmdSetRectHeight { *Cmd : "<1B>*c" %d{(RectYSize / 2)}"B" }
*Command: CmdRectGrayFill { *Cmd : "<1B>*c" %d{GrayPercentage}"g2P" }
*Command: CmdRectWhiteFill { *Cmd : "<1B>*c1P" }
*Command: CmdRectBlackFill { *Cmd : "<1B>*c0P" }
```

• *Follow-Ups:*

- ◆ **Re: Problem printing at lower dpi**
◇ From: hierro
- ◆ **Re: Problem printing at lower dpi**
◇ From: hierro

- Prev by Date: **SD-bus send CMD52 and CMD53 is wrong.**
- Next by Date: **AVStream : How to get USB BULK transfer size after abort pipe?**
- Previous by thread: **SD-bus send CMD52 and CMD53 is wrong.**
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- Index(es):
 - ◆ **Date**
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