



Deepak Patankar <patankardeepak04@gmail.com>

Issue Message

11 messages

Deepak Patankar <patankardeepak04@gmail.com>
To: Till Kampeter <till.kamppeter@gmail.com>

11 July 2018 at 18:18

I am using `ppdCreateFromIPP()` function to generate ppd files for remote cups queue. There are variations in ppd file available at remote server and the one generated by `ppdCreatorFromIPP()`. Significant variations are :

1. ColorDevice is False in remote server PPD, but it is True in generated ppd. Whether the default setting is True ?
2. The number of capabilities available differs for following options: For eg. more PageRegions options were available in ppd generated using `ppdCreateFromIPP()`.
 - a. PSVersions
 - b. ImageableArea
 - c. PageRegions
3. Some capabilities were not available in the generated ppd file, for eg
 - a. Font
 - b. ColorModelwere missing

Since the number of options available differs, there could be variation in print quality. Why the capabilities differs in these two ppds ? Whether modifications will be made in `ppdCreateFromIPP()` to include remaining capabilities like Font, ColorModel etc.

Thanks

Till Kampeter <till.kamppeter@gmail.com>
To: Deepak Patankar <patankardeepak04@gmail.com>

11 July 2018 at 19:44

On 2018-07-11 14:48, Deepak Patankar wrote:

I am using `ppdCreateFromIPP()` function to generate ppd files for remote cups queue. There are variations in ppd file available at remote server and the one generated by `ppdCreatorFromIPP()`. Significant variations are :

1. ColorDevice is False in remote server PPD, but it is True in generated ppd. Whether the default setting is True ?

First please check the output of

```
ipptool -tv <URI> get-printer-attributes-2.0.test
```

on the machine where you are running cups-browsed.

For <URI> use the URI of the remote printer as shown by the

driverless

command.

The output is the data which is used by `ppdCreateFromIPP()` to generate the PPDs. Check whether this data proposes that the remote printer is a color printer. If it does not propose anything about color or bw we default to color to avoid blocking access to printer features.

2. The number of capabilities available differs for following options: For eg. more PageRegions options were available in ppd generated using `ppdCreateFromIPP()`.
 - a. PSVersions

- b. ImageableArea
- c. PageRegions

3. Some capabilities were not available in the generated ppd file, for eg
 - a. Font
 - b. ColorModel
 were missing

Since the number of options available differs, there could be variation in print quality. Why the capabilities differs in these two ppds ? Whether modifications will be made in `ppdCreateFromIPP()` to include remaining capabilities like Font, ColorModel etc.

Please check the output of above-mentioned `ipptool` command. If the generated PPD matches this output but not the original PPD, CUPS is not reporting the capabilities correctly.

Till

Deepak Patankar <patankardeepak04@gmail.com>
 To: Till Kamppeter <till.kamppeter@gmail.com>

23 July 2018 at 13:25

Hi

I forgoing replying to this thread, sorry for the delay.

On 11 July 2018 at 19:44, Till Kamppeter <till.kamppeter@gmail.com> wrote:

On 2018-07-11 14:48, Deepak Patankar wrote:

I am using `ppdCreateFromIPP()` function to generate ppd files for remote cups queue. There are variations in ppd file available at remote server and the one generated by `ppdCreateFromIPP()`. Significant variations are :

1. ColorDevice is False in remote server PPD, but it is True in generated ppd. Whether the default setting is True ?

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The output is the data which is used by `ppdCreateFromIPP()` to generate the PPDs. Check whether this data proposes that the remote printer is a color printer. If it does not propose anything about color or bw we default to color to avoid blocking access to printer features.

`Ipptool` command gives color-supported (boolean) = false, thus we should have `*ColorDevice: False` in generated ppd file. But `ppdCreateFromIPP()` function gets a variable named color from cups-browsed whose default value is True and it uses DNS-SD to decide whether the printer is coloured. May be we are not getting the color data from dns-sd that's why default value is set or may be wrong value is supplied.

We may get problem due to this issue when all the printers in the cluster doesn't support color printing. Our ppd file will contain ColorDevice True but we won't be able to give color printout.

```
entry = avahi_string_list_find((AvahiStringList *)txt, "Color");
if (entry) {
    avahi_string_list_get_pair(entry, &key, &value, NULL);
    if (key && value && !strcasecmp(key, "Color")) {
        if (!strcasecmp(value, "T")) color = 1;
        if (!strcasecmp(value, "F")) color = 0;
    }
}
```

2. The number of capabilities available differs for following options: For eg. more PageRegions options were available in ppd generated using ppdCreateFromIPP().

- a. PSVersions
- b. ImageableArea
- c. PageRegions

The number of options in ppd generator is more than actual ppd and all options in actual ppd are covered in generated ppd. Generated ppd matches the output supplied by get-printer-attributes-2.0.test, the output of this ipptool contains more number of options than the number of options in actual ppd file.

3. Some capabilities were not available in the generated ppd file, for eg

- a. Font
 - b. ColorModel
- were missing

ppdgenerator.c doesn't write any line for font in generated ppd file, that's why font options were missing. I think colormodel lines should be there in generated ppd file as required data is supplied by ipptool command. Since I could not understand some part of ppdgenerator.c, I will take help from Sahil Arora and update you if this is an issue.

Since the number of options available differs, there could be variation in print quality. Why the capabilities differs in these two ppds ? Whether modifications will be made in ppdCreateFromIPP() to include remaining capabilities like Font,ColorModel etc.

Please check the output of above-mentioned ipptool command. If the generated PPD matches this output but not the original PPD, CUPS is not reporting the capabilities correctly.

Till

Till Kamppeter <till.kamppeter@gmail.com>

23 July 2018 at 18:33

To: Deepak Patankar <patankardeepak04@gmail.com>

On 23/07/18 09:55, Deepak Patankar wrote:

Ipptool command gives color-supported (boolean) = false, thus we should have *ColorDevice: False in generated ppd file. But ppdCreateFromIPP() function gets a variable named color from cups-browsed whose default value is True and it uses DNS-SD to decide whether the printer is coloured. May be we are not getting the color data from dns-sd that's why default value is set or may be wrong value is supplied.

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```
entry = avahi_string_list_find((AvahiStringList *)txt, "Color");
if (entry) {
    avahi_string_list_get_pair(entry, &key, &value, NULL);
    if (key && value && !strcasecmp(key, "Color")) {
        if (!strcasecmp(value, "T")) color = 1;
        if (!strcasecmp(value, "F")) color = 0;
    }
}
```

This means that there are printers which tell that they are color in their DNS-SD record and that they are BW in the get-printer-attributes response. So this info seems to be not 100% reliable.

My suggestion is that you check at first which color spaces/modes the printer supports (via "urf-supported", "pwg-raster-document-type-supported", "print-color-mode-supported", "output-mode-supported", as the check for the "ColorModel" option in the PPD generator) and if there are colored ones ("*rgb*", "*cmy*", "*color*", ...), consider the printer a color printer, if there are only monochrome ones, consider it a BW printer.

Only if there are no attributes listing supported color modes check for the color-supported attribute and if also that is missing use the DNS-SD result for whether the printer is color.

Please tell me also which printer model(s) have the color-supported boolean IPP attribute and the "Color" DNS-SD TXT record field contradicting.

2. The number of capabilities available differs for following options: For eg. more PageRegions options were available in ppd generated using ppdCreateFromIPP().

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PSVersions should not be relevant for us as we do not use PostScript for driverless printing. We only use PDF, PWG Raster, Apple Raster, or PCLm.

PageSize, PageRegion, ImageableArea, and PaperDimension always have the same number of entries for a given printer and this is the number of available paper sizes, where the same size with different margins (like standard and borderless) count as different sizes. When combining several printers with different sets of paper sizes all sizes available on any of the combined printers go in:

Printer A: A6, A5, A4, A3

Printer B: A5, A5.borderless, A4, A4.borderless

Cluster: A6, A5, A5.borderless, A4, A4.borderless, A3

3. Some capabilities were not available in the generated ppd file, for eg
- a. Font
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ppdgenerator.c doesn't write any line for font in generated ppd file, that's why font options were missing.

First, in driverless printing we do not print in PostScript, and I assume the font lists in PPD files controlled which fonts do not need to get embedded in a PostScript job as the printer's PostScript interpreter already has the font built-in. I do not know whether there is a similar mechanism applied for PDF jobs, and for the raster PDLs it does not matter anyway.

Till

Deepak Patankar <patankardeepak04@gmail.com>
To: Till Kampeter <till.kampeter@gmail.com>

24 July 2018 at 17:42

On 23 July 2018 at 18:33, Till Kampeter <till.kampeter@gmail.com> wrote:

On 23/07/18 09:55, Deepak Patankar wrote:

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This means that there are printers which tell that they are color in their DNS-SD record and that they are BW in the get-printer-attributes response. So this info seems to be not 100% reliable.

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Only if there are no attributes listing supported color modes check for the color-supported attribute and if also that is missing use the DNS-SD result for whether the printer is color.

Please tell me also which printer model(s) have the color-supported boolean IPP attribute and the "Color" DNS-SD TXT record field contradicting.

Printer Model : Canon BJ-10v Foomatic/bj10v

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Printer B: A5, A5.borderless, A4, A4.borderless

Cluster: A6, A5, A5.borderless, A4, A4.borderless, A3

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Till

Till Kamppeter <till.kamppeter@gmail.com>
To: Deepak Patankar <patankardeepak04@gmail.com>

25 July 2018 at 01:48

On 24/07/18 14:12, Deepak Patankar wrote:

Please tell me also which printer model(s) have the color-supported boolean IPP attribute and the "Color" DNS-SD TXT record field contradicting.

Printer Model : Canon BJ-10v Foomatic/bj10v

So looks like that the offending printer is not a native IPP network printer but a remote CUPS queue. Can you post its PPD file from the server? Thanks.

Till

Till Kamppeter <till.kamppeter@gmail.com>
To: Deepak Patankar <patankardeepak04@gmail.com>

25 July 2018 at 01:57

[Quoted text hidden]

Can you also run avahi-discover or avahi-browse on the client whether remote CUPS queues, especially the queue mentioned here are reported as color or BW printers? Does CUPS follow the PPD files of its queues when advertising printers? Or does it report all queues as color?

Till

Deepak Patankar <patankardeepak04@gmail.com>
To: Till Kamppeter <till.kamppeter@gmail.com>

25 July 2018 at 13:38

I have attached server ppd file along with the output of get-printer-attributes-2.0.test and the generated ppd file by the client.

[Quoted text hidden]

3 attachments



file_printer_ipp
13K



file_printer_server.ppd
11K



file_printer_ubuntu_client.ppd
7K

Deepak Patankar <patankardeepak04@gmail.com>
To: Till Kamppeter <till.kamppeter@gmail.com>

25 July 2018 at 14:23

I checked the output of avahi-discover and found that cups doesn't broadcast Color for remote cups queue, while the Color option is broadcasted by ipp network printer. Since no value is broadcasted the default one i.e. True is selected in cups-browsed. As per your suggestion, I will make changes to ppdgenerator.c to first check urf-supported, print-colour-mode-supported....values before using the color variable send by cups-browsed.

[Quoted text hidden]

Till Kamppeter <till.kamppeter@gmail.com>
To: Deepak Patankar <patankardeepak04@gmail.com>

25 July 2018 at 14:45

On 25/07/18 10:53, Deepak Patankar wrote:

I checked the output of avahi-discover and found that cups doesn't broadcast Color for remote cups queue, while the Color option is broadcasted by ipp network printer. Since no value is broadcasted the default one i.e. True is selected in cups-browsed. As per your suggestion, I will make changes to ppdgenerator.c to first check urf-supported, print-colour-mode-supported....values before using the color variable send by cups-browsed.

Yes, this is how it should work.

Any options to set a color mode (in the get-printer-attributes response) have highest priority on this decision, the "color-supported" or similar entries in the get-printer-attributes response count and only if also this is missing the DNS-SD-based "color" variable of cups-browsed should be used.

Till

Deepak Patankar <patankardeepak04@gmail.com>
To: Till Kamppeter <till.kamppeter@gmail.com>

27 July 2018 at 22:37

Hi

20/01/2019

Gmail - Issue Message

Is there a list which contains all the possible value an attribute can take ? for eg: document-format-supported can take values application/pdf,application/x-perl, image/urf...etc.

Thanks

Deepak

[Quoted text hidden]