



Suchy **MIPS**

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BENS G3

Macro Filter

Manual



Suchy MIPS

Release June 2011

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1. Functional Specification

The macro filter enables printing separate PCL macros that were uploaded onto BENS via the HTML interface. To upload macros onto BENS, start the BENS HTML administration tool, select **Configuration** -> **Macros** from the menu and then click on the button **Search**. Now, select the file containing the macro and click on the button **Add macro**.

Note: When PCL macros are uploaded, no plausibility checks are carried out. Therefore, the user should at first thoroughly test all files to be uploaded.

The macro filter is controlled via an XML configuration file which is described in detail on the following pages. It offers a high flexibility and, among other advantages, enables the actions stated below:

- The selection of those pages on which a macro will be printed.
- The adding of macros to the print data stream.
- The transformation of macros into pure PCL-5 data
- The adding of further PJI commands to the PJI header (e.g. stapling).

Additionally it is possible to read PCL-5 data from a file and add it to the print data stream.

Formatiert: Einzug: Links: 1,25 cm,
Hängend: 1,25 cm, Tabstopps: 2,5
cm, Links + Nicht an 1,5 cm

2. Installation of the Filter

For installing the filter on BENS, please proceed as follows:

Filter

- Start the BENS HTML administration tool.
- Select **Configuration** → **Filters** from the menu and then click on the button **Add Filter**.
- Click on the button **Search**, mark the macro filter file we included in our delivery and click on the button **Save**. The name of the filter then appears in the list of all filters available on BENS.

Configuration

- Please adjust the included XML configuration file according to your own requirements, following the instructions set down in the ensuing pages.
- Select **Configuration** → **Filters** from the menu and then click on the name of the filter.
- Click on the button **Add config file**.
- Click on the button **Search** and select the corresponding XML file.
- Enter a name for the configuration file in the field **Config file description** (the file name will not be adopted automatically).
- To finish this process, click on the button **Update config file**. The configuration file will then appear in the list of all configuration files for this filter.

3. Implementation of the Filter

BENS will only employ the uploaded filter when it is activated for a virtual printer. In order to activate a filter for a virtual printer, please proceed as follows:

- Select **Configuration** → **Virtual Printers** from the menu.
- Click on the name of the virtual printer for which you wish to activate the filter.
- From the combobox **Add filter** select the name of the filter. The filter name will then appear in the list for the filters activated for the currently used virtual printer.
- Then select the suitable configuration from the combobox **Filter config**.
- The activation of the filter is now concluded.

Note: A filter can only be used when it was activated for a virtual printer.

The filter can only be used on those virtual printers on which it was activated.

Each virtual printer requires a license for the activation. When there are no licenses left, an error message will be displayed on activation.

The licenses are not committed to specific virtual printers. When you delete a filter from the virtual printer, a license will be released, enabling you to reactivate the filter on a different virtual printer.

4. Example and Description of the Configuration File

For a better legibility, single paragraphs of the configuration file were highlighted in colour. Only the values marked in **bold/green** may be altered.

```
<?xml version="1.0" encoding="iso-8859-2" ?>
<Macro version="1.0">

<MacroDef>
  <MacroID>7391</MacroID>
  <MacroFile>7391.mac</MacroFile>
  <MacroMode>2</MacroMode>
  <MacroCallLocation>1</MacroCallLocation>
  <MacroPage>*</MacroPage>
  <AddMacro>YES</AddMacro>
</MacroDef>

<Pcl5Def>
  <Pcl5File>PclFile.prn</Pcl5File>
  <Pcl5CallLocation>1</Pcl5CallLocation>
  <Pcl5Page>1,5-6</Pcl5Page>
</Pcl5Def>

<ErrToStdout>YES</ErrToStdout>
<AddPJL>@PJL Comment BENS G3 Macro Filter working</AddPJL>
<AddPJLCR>YES</AddPJLCR>
<AutoPJLFooter>NO</AutoPJLFooter>

<Esc></Esc>
<PJLFooter></PJLFooter>

</Macro>
```

Note: The sequence of the XML TAGs should not be altered.

The block <MacroDef>...</MacroDef> can be repeated any number of times.

A separate <MacroDef> block has to be defined for each macro.

Before the macros can be used, they have to be uploaded onto BENS.

4.1. <MacroID>

<MacroID>value</MacroID>

This is the macro ID of the macro to be executed. The macro ID has to correspond to the actual macro ID of the macro that will be used.

4.2. <MacroFile>

<MacroFile>filename</MacroFile>

This is the file name of the macro with the macro ID stated in the same <MacroDef> block. The file names of the macros that were uploaded upon BENS can be viewed using the BENS HTML administration tool. For this purpose, select **Configuration** → **Macros** from the menu.

Note: When specifying the file name, the correct case sensitivity has to be observed.

4.3. <MacroMode>

<MacroMode>value</MacroMode>

This TAG determines the way the macro will be executed. If this TAG is omitted, the default value will be used.

The permitted values are:

- 2 Execute Macro. The macro is executed in such a way that possible changes in the printer environment will be undone after executing the macro.
- 3 Call Macro. The macro is executed in such a way that possible changes in the printer environment are retained after executing the macro (default).
- 4 Automatic Overlay. The macro is executed on each page.

Because there are printers, which cannot handle the separation of macro definition and macro call, it is possible to use the values 20, 30 and 40. The values have the same meaning as the single digit values. Internally the filter creates one PCL sequence which contains both, the macro definition and the call. This sequence is inserted at the end of the page. In this case the tag "MacroCallLocation" has no meaning

Because there are printers, which do not support the insertion of a macro definition at all, it is possible to use the values 200, 300 and 400. The values have the same meaning as the single digit values. Internally the filter transforms the macro definition into a pure PCL-5 sequence. This sequence is inserted at the end of the page. In this case the tag "MacroCallLocation" has no meaning

Note: The double-digit and the three-digit values are only relevant, if the input file is a PCL-6 file.

4.4. <MacroCallLocation>

<MacroCallLocation>value</MacroCallLocation>

This TAG determines on which position of the page a relevant macro call-up will be placed. If this TAG is omitted, the default value will be used.

The permitted values are:

- 0** On top of the page
- 1** At the end of the page (default).
- 9** No macro call-up is entered into the print data stream. This option has to be used when the print data stream already contains relevant macro call-ups.

4.5. <MacroPage>

<MacroPage>value</MacroPage>

This TAG determines on which pages a macro call-up will be placed. If this TAG is omitted, no macro call-ups are entered into the print data stream. This procedure is not necessary when the macro call-ups were already entered into the print data file by the application used.

The permitted values are:

- *** On each page
- n** On page n
- n1 – n2** On pages n1 to n2

The page numbering can also be set in a mixed form:

1,3,6-8,9,10

means that the macro call-up is executed on pages 1,3, 6 to 8, 9 and 10.

4.6. <AddMacro>

<AddMacro>value</AddMacro>

This TAG determines whether a given macro will be entered into the data stream or not.

The permitted values are:

- NO** The macro is not entered into the data stream (default).
- YES** The macro is entered into the data stream.

The option **NO** can be used when the macros were already stored on a non-volatile memory in the printer or if one wants to edit a configuration file for various printers on which various macros come into operation.

4.7. **< Pcl5File >**

< Pcl5File >filename</ Pcl5File >

filename of the file, that contains the PCL-5 Code.

Note: When specifying the file name, the correct case sensitivity has to be observed.

4.8. **< Pcl5CallLocation >**

< Pcl5CallLocation >value</ Pcl5CallLocation >

This TAG determines on which position of the page the content of the PCL-5 file will be inserted. If this TAG is omitted, the default value will be used.

The permitted values are:

0 On top of the page

1 At the end of the page (default).

Note: This TAG is only relevant, if the input file is a PCL-6 file

4.9. **< Pcl5Page >**

< Pcl5Page >value</ Pcl5Page >

This TAG defines, on which pages the content of the PCL-file must be inserted. If the TAG is omitted, there will be no insertion at all.

The permitted values are

***** On each page

n On page n

n1 – n2 On pages n1 to n2

The page numbering can also be set in a mixed form:

1,3,6-8,9,10

means that the content of the PCL-5 file is inserted on pages 1,3, 6 to 8, 9 and 10.

If the document has less pages, the higher values will be ignored

Note: This TAG is only relevant, if the input file is a PCL-6 file

4.10. **<ErrToStdout>**

<ErrToStdout>value</ErrToStdout>

This TAG determines whether and/or how the reporting process is executed. This TAG is optional. Should it be omitted, no reporting will take place.

The permitted values are:

- NO** No reporting will take place.
- YES** The error reporting is printed out on paper.
- LOG** A log file is put out on BENS as default. With the aid of the log file a possible error case can be analysed even if no program abortion has taken place.

4.11. <AddPJL>

<AddPJL>value</AddPJL>

This TAG can be used for entering an additional PJL command (e.g. stapling) into the print data file. This PJL command is written into the PJL-Header of the print data file. This TAG is optional but it can also be used various times (for multiple PJL commands). **Value** in this case corresponds to a valid PJL command. The added PJL commands are terminated only with a line feed (0x0A). Should a further carriage return be added for termination, the TAG <AddPJLCR> also has to carry the value **YES**.

4.12. <AddPJLCR>

<AddPJL>value</AddPJL>

This TAG determines whether PJL commands added with <AddPJL> will in addition be terminated with a carriage return (0x0D). As default, the PJL commands added with <AddPJL> are only terminated with a line feed.

The permitted values are:

- NO** additional PJL commands are only terminated with a line feed (0x0A) (default).
- YES** additional PJL commands are terminated with line feed/carriage return (LF/CR) (0x0A 0x0D).

4.13. <AutoPJLFooter>

<AutoPJLFooter>value</AutoPJLFooter>

This TAG determines whether a PJL Footer is added at the end of the print data. In this case, the entry made in the TAG <PJLFooter> is added, or, if the TAG <PJLFooter> not used, the default value will apply:

<Esc>%-12345X@PJL EOJ<Esc>%-12345X

The automatic addition of the PJL Footer can, for example, become necessary when a PJL command for stapling the stack is added with <AddPJL>, and if the print file carries no PJL Footer of its own. In this case, some printer models will omit stapling because the job end (triggers stapling) cannot be identified. This TAG is optional.

The permitted values are:

NO No PJL Footer is added to the print data (default).

YES A PJL Footer is added to the print data.

4.14. <ESC>

<ESC>value</ESC>

This TAG identifies a replacement character for a not displayable character. Any character apart from Tilde „~“ can be used. This character is used when an escape character is necessary for an entry in the TAG <PJLFooter>. The TAG <ESC> always has to precede the TAG <PJLFooter>.

4.15. <PJLFooter>

<PJLFooter>value</PJLFooter>

This TAG determines the PJL command for the PJL Footer. The PJL Footer entered here is added to the end of the print data, should the TAG <AutoPJLFooter> carry the value **NO**.

If the PJL command has to be entered together with the not displayable character „ESCAPE“ (0x27) then a displayable character such as for example „?“ or „&“ has to be defined in the TAG <ESC> first and then entered here.