PRINTER SERVICE

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INTRODUCTION

This documentation details the specific set of commands for printer devices. These, along with *common commands* conform the complete set of commands available for printer devices. Sometimes, certain *common commands* can be overwritten within a specific service, because they change their behavior. In the case of `Printer Service`, following commands are overwritten:

- XPEAK_COMMAND_GET_CAPABILITIES
- XPEAK_COMMAND_GET_STATUS

All commands described here meet the *Xpeak* specification General Message Format

COMMANDS

XPEAK_COMMAND_ACTION (0x70600D6)

Version: 0706

Description:

After one or several data printings with the XPEAK_COMMAND_PRINT command, the application can execute different actions on the media through this command.

Parameters:

- **int[] Actions**

  Possible actions to execute are shown in the table below. These actions will be executed in the same order as they are in the table.

Action	Description
XPEAK_PRINTER_ACTION_SKIP (0x7060065)	The data sent to be printed will be removed an will not be printed
XPEAK_PRINTER_ACTION_FLUSH (0x7060066)	Every data sent in the XPEAK_COMMAND_PRINT command will be physically sent to the printer
XPEAK_PRINTER_ACTION_PARTIAL_CUT (0x7060067)	A partial cut of the media will be done, only if the printer supports this capability
XPEAK_PRINTER_ACTION_CUT (0x7060068)	A cut of the media will be done, only if the printer supports this capability
XPEAK_PRINTER_ACTION_STACK (0x7060069)	The media will be carried to the intermediate stacker, if the printer supports this capability

  If any action, not supported by the printer, is tried to be executed, it will just be ignored, not any error will be sent.

Result:

- **int Result**

  Apart from the common values, this command could return as result:

Result	Description
XPEAK_RESULT_MEDIA_NOT_PRESENT (0x706005C)	There is no media present on the printer. If the printer has a paper roll, this error could indicate that the roll is empty.
XPEAK_RESULT_MEDIA_JAMMED (0x706005D)	Error due to a jam of the media.

XPEAK_COMMAND_DELETE_GRAPHICS (0x70600D4)

Version: 0706

Description:

This command deletes all the graphics previously loaded by the XPEAK_COMMAND_LOAD_GRAPHIC command

Result:

See Common Results

XPEAK_COMMAND_DISABLE_INSERT (0x7060019)

Version: 0706

Description:

Disables the insertion of a media in the printer.

Result:

See Common Results

XPEAK_COMMAND_EJECT (0x7060039)

Version: 0706

Description:

Ejects a media, previously inserted with the XPEAK_COMMAND_ENABLE_INSERT command. If the device has an output shutter, it will be automatically opened when this command is executed.

Parameters:

- **int Timeout**

  During this time (in milliseconds), the service will wait for the user to take the media. If this value is less than zero, the service will wait until a XPEAK_COMMAND_RETRACT command is received or until the media is taken. If an error happens, it will be notified with an event.

Result:

- **int Result**

  Apart from the common values, this command can return as result:

Result	Description
XPEAK_RESULT_MEDIA_NOT_PRESENT (0x706005C)	There is no media inserted in the device to be ejected. No event will be sent.
XPEAK_RESULT_MEDIA_JAMMED (0x706005D)	Media jam ejecting the Media. No event will be sent.
XPEAK_RESULT_SHUTTER_ERROR (0x7060061)	Error in the output shutter, so the media can not be ejected. No event will be sent.

Events:

XPEAK_RESULT_MEDIA_TAKEN (0x7060062) Since 0706

This event is thrown when the user take the ejected media. The shutter, if any, will be automatically closed. In case the device has not sensor to detect when the media is taken, this event will not be thrown. This capability (*HasMediaTakenSensor*) is indicated in the device capabilities, calling the XPEAK_COMMAND_GET_CAPABILITIES command.

XPEAK_COMMAND_ENABLE_INSERT (0x7060018)

Version: 0706

Description:

Enables the media insertion of the printer. If the device has an input shutter, it will be automatically opened when this command is received.

Parameters:

- **int Timeout**
  During this timeout (in milliseconds), the insertion of the media will be enabled. If this value is less than zero, the device will be enabled until the command XPEAK_COMMAND_DISABLE_INSERT is executed or the media is inserted. In case of any error, it will be notified with an event.

Result:

- **int Result**
  Apart from the common values, this command can return the following results:

Result	Description
XPEAK_RESULT_MEDIA_INSERTED (0x7060060)	There is already a media inserted. No later events will be sent.
XPEAK_RESULT_SHUTTER_ERROR (0x7060061)	The insertion can not be enabled due to a shutter error. No later events will be sent.

Events:

XPEAK_RESULT_MEDIA_INSERTED (0x7060060) Since 0706

This event is sent when the media is inserted in the printer. The shutter, if any, will be automatically closed. Depending on the device capabilities, this event could include some of the following fields:

- **double MediaWidth**
  If the printer can detect the width of the inserted media (see the *CanDetectMediaWidth* field in the XPEAK_COMMAND_GET_CAPABILITIES command), the service will return in this field the width in inches.

- **double MediaHeight**
  If the printer can detect the height of the inserted media (see the field *CanDetectMediaHeight* of the command XPEAK_COMMAND_GET_CAPABILITIES), the service will return in this field the height in inches.

XPEAK_RESULT_MEDIA_JAMMED (0x706005D) Since 0706

This event indicates that the media is jammed in the printer. The shutter, if any, will be automatically closed, in case it is possible although the media jam.

XPEAK_COMMAND_GET_CAPABILITIES (0x7060017)

Version: 0706

Description:

It returns the device capabilities. The application should consider these capabilities and adapt its behavior to the device characteristics.

Result:

- **boolean CanSkipPrintBuffer**
  This capability indicates if the printer prints directly or if it is able to save a buffer to, later carry out a flush or skip action. If this value is *false*, the calls to the command XPEAK_COMMAND_PRINT will generate an automatic flush of the data.

- **boolean CanRetractMedia**
  Indicates if the device can capture a media with the XPEAK_COMMAND_RETRACT command.

- **int MaximumCapturedBinCapacity**
  Maximum capacity of the capture bin. If this bin does not exist, this value will be *0*

- **boolean CanCutMedia**
  Indicates if the device can cut the paper.

- **boolean CanCutMediaPartially**
  Indicates if the device can partially cut the paper.

- **boolean HasIntermediateStacker**
  If *false*, the action XPEAK_PRINTER_ACTION_STACK (0x7060069) will not take effect.

- **boolean HasMediaTakenSensor**
  If *false*, the command XPEAK_COMMAND_EJECT will not send any event.

- **double MaximumMediaWidth**
  Indicates the maximum width in inches of the media that can be inserted in the printer. In case of paper roll printers, indicates the width of the roll.

- **double MaximumMediaHeight**
  Indicates the maximum height, in inches, of the printing. If this value is *0*, there is not maximum limit.

- **boolean HasRollpaper**
  Indicates if the printer has paper roll. If so, the command XPEAK_COMMAND_ENABLE_INSERT will not be used to insert the media, because it will be always ready. To know if the media is available, the command XPEAK_COMMAND_GET_STATUS will be used.

- **boolean CanPrintInLandscape**
  Indicates if the printer can print in Landscape mode.

- **boolean CanPrintBack**
  Indicates if the printer can print in the front side (common to all the printers) as well as in the rear of the media.

- **String[] Fonts**
  It returns the list of Fonts that the printer supports. If this list is empty, it means that any font defined in the system can be printed.

- **double[] CPIs**
  It will return a list with the possible CPI values for this printer. If the list is empty, any CPI will be accepted.

- **double[] LPIs**
  It will return the list of possible LPI for the printer. If the list is empty, any LPI value will be accepted.

- **int[] Styles**
  Indicates the list of the different printing styles that the printer supports. The possible values for each element are:
    - XPEAK_PRINTER_STYLE_NORMAL (0x706007B)
    - XPEAK_PRINTER_STYLE_BOLD (0x706007C)
    - XPEAK_PRINTER_STYLE_ITALIC (0x706007D)
    - XPEAK_PRINTER_STYLE_UNDER (0x706007E)
    - XPEAK_PRINTER_STYLE_DOUBLE_UNDER (0x706007F)
    - XPEAK_PRINTER_STYLE_DOUBLE_WIDTH (0x7060080)
    - XPEAK_PRINTER_STYLE_TRIPLE_WIDTH (0x7060081)
    - XPEAK_PRINTER_STYLE_QUADRUPLE_WIDTH (0x7060082)
    - XPEAK_PRINTER_STYLE_STRIKE (0x7060083)
    - XPEAK_PRINTER_STYLE_DOUBLE_STRIKE (0x7060084)
    - XPEAK_PRINTER_STYLE_ROTATE_90 (0x7060085)
    - XPEAK_PRINTER_STYLE_ROTATE_270 (0x7060086)
    - XPEAK_PRINTER_STYLE_UPSIDE_DOWN (0x7060087)
    - XPEAK_PRINTER_STYLE_DOUBLE_HEIGHT (0x7060088)
    - XPEAK_PRINTER_STYLE_TRIPLE_HEIGHT (0x7060089)
    - XPEAK_PRINTER_STYLE_QUADRUPLE_HEIGHT (0x7060092)
    - XPEAK_PRINTER_STYLE_SUPER_SCRIPT (0x706008A)
    - XPEAK_PRINTER_STYLE_SUB_SCRIPT (0x706008B)
    - XPEAK_PRINTER_STYLE_OPAQUE (0x7060093)

- **boolean CanPrintGraphics**
  Indicates if graphics printing is supported by the printer.

- **int[] GraphicFormats**

  If the printer can print graphics, this capability will return the list of the graphic formats supported. The possible values are:

  - XPEAK_GRAPHIC_FORMAT_GIF (0x706008C)
  - XPEAK_GRAPHIC_FORMAT_BMP (0x706008D)
  - XPEAK_GRAPHIC_FORMAT_JPG (0x706008E)
  - XPEAK_GRAPHIC_FORMAT_TIF (0x706008F)
  - XPEAK_GRAPHIC_FORMAT_PCX (0x7060090)
  - XPEAK_GRAPHIC_FORMAT_PNG (0x7060091)

  These values are the possible values in the XPEAK_COMMAND_LOAD_GRAPHIC command

- **boolean CanPrintFrames**

  Indicates if the printer supports frames printing.

- **boolean CanDetectMediaWidth**

  Indicates if the printer is able to know the width of the inserted media. If the printer has paper roll, this capability will not be used. If the value is *true*, the event sent by the command XPEAK_COMMAND_ENABLE_INSERT will return the width of the media.

- **boolean CanDetectMediaHeight**

  Indicates if the printer is able to know the height of the inserted media. If the printer has paper roll, this capability will not be used. If the value is *true*, the event sent by the command XPEAK_COMMAND_ENABLE_INSERT will return the height of the media.

- **boolean CanReadMagneticStripe**

  Indicates if the printer has the capability to read the magnetic stripe of the inserted media.

- **boolean CanWriteMagneticStripe**

  Indicates if the printer has the capability to write the magnetic stripe of the inserted media.

XPEAK_COMMAND_GET_CAPABILITIES (0x7060017)

Version: 1304

Description:

It returns the device capabilities. The application should consider these capabilities and adapt its behavior to the device characteristics.

Result:

- **boolean CanSkipPrintBuffer**
  This capability indicates if the printer prints directly or if it is able to save a buffer to, later carry out a flush or skip action. If this value is *false*, the calls to the command XPEAK_COMMAND_PRINT will generate an automatic flush of the data.

- **boolean CanRetractMedia**
  Indicates if the device can capture a media with the XPEAK_COMMAND_RETRACT command.

- **int MaximumCapturedBinCapacity**
  Maximum capacity of the capture bin. If this bin does not exist, this value will be *0*

- **boolean CanCutMedia**
  Indicates if the device can cut the paper.

- **boolean CanCutMediaPartially**
  Indicates if the device can partially cut the paper.

- **boolean HasIntermediateStacker**
  If *false*, the action XPEAK_PRINTER_ACTION_STACK (0x7060069) will not take effect.

- **boolean HasMediaTakenSensor**
  If *false*, the command XPEAK_COMMAND_EJECT will not send any event.

- **double MaximumMediaWidth**
  Indicates the maximum width in inches of the media that can be inserted in the printer. In case of paper roll printers, indicates the width of the roll.

- **double MaximumMediaHeight**
  Indicates the maximum height, in inches, of the printing. If this value is *0*, there is not maximum limit.

- **boolean HasRollpaper**
  Indicates if the printer has paper roll. If so, the command XPEAK_COMMAND_ENABLE_INSERT will not be used to insert the media, because it will be always ready. To know if the media is available, the command XPEAK_COMMAND_GET_STATUS will be used.

- **boolean CanPrintInLandscape**
  Indicates if the printer can print in Landscape mode.

- **boolean CanPrintBack**
  Indicates if the printer can print in the front side (common to all the printers) as well as in the rear of the media.

- **String[] Fonts**
  It returns the list of Fonts that the printer supports. If this list is empty, it means that any font defined in the system can be printed.

- **double[] CPIs**
  It will return a list with the possible CPI values for this printer. If the list is empty, any CPI will be accepted.

- **double[] LPIs**
  It will return the list of possible LPI for the printer. If the list is empty, any LPI value will be accepted.

- **int[] Styles**
  Indicates the list of the different printing styles that the printer supports. The possible values for each element are:
  - XPEAK_PRINTER_STYLE_NORMAL (0x706007B)
  - XPEAK_PRINTER_STYLE_BOLD (0x706007C)
  - XPEAK_PRINTER_STYLE_ITALIC (0x706007D)
  - XPEAK_PRINTER_STYLE_UNDER (0x706007E)
  - XPEAK_PRINTER_STYLE_DOUBLE_UNDER (0x706007F)
  - XPEAK_PRINTER_STYLE_DOUBLE_WIDTH (0x7060080)
  - XPEAK_PRINTER_STYLE_TRIPLE_WIDTH (0x7060081)
  - XPEAK_PRINTER_STYLE_QUADRUPLE_WIDTH (0x7060082)
  - XPEAK_PRINTER_STYLE_STRIKE (0x7060083)
  - XPEAK_PRINTER_STYLE_DOUBLE_STRIKE (0x7060084)
  - XPEAK_PRINTER_STYLE_ROTATE_90 (0x7060085)
  - XPEAK_PRINTER_STYLE_ROTATE_270 (0x7060086)
  - XPEAK_PRINTER_STYLE_UPSIDE_DOWN (0x7060087)
  - XPEAK_PRINTER_STYLE_DOUBLE_HEIGHT (0x7060088)
  - XPEAK_PRINTER_STYLE_TRIPLE_HEIGHT (0x7060089)
  - XPEAK_PRINTER_STYLE_QUADRUPLE_HEIGHT (0x7060092)
  - XPEAK_PRINTER_STYLE_SUPER_SCRIPT (0x706008A)
  - XPEAK_PRINTER_STYLE_SUB_SCRIPT (0x706008B)
  - XPEAK_PRINTER_STYLE_OPAQUE (0x7060093)

- **boolean CanPrintGraphics**
  Indicates if graphics printing is supported by the printer.

- **int[] GraphicFormats**

  If the printer can print graphics, this capability will return the list of the graphic formats supported.
  The possible values are:

  - XPEAK_GRAPHIC_FORMAT_GIF (0x706008C)
  - XPEAK_GRAPHIC_FORMAT_BMP (0x706008D)
  - XPEAK_GRAPHIC_FORMAT_JPG (0x706008E)
  - XPEAK_GRAPHIC_FORMAT_TIF (0x706008F)
  - XPEAK_GRAPHIC_FORMAT_PCX (0x7060090)
  - XPEAK_GRAPHIC_FORMAT_PNG (0x7060091)

  These values are the possible values in the XPEAK_COMMAND_LOAD_GRAPHIC command

- **boolean CanPrintBarcodes**

  Indicates if barcodes printing is supported by the printer.

- **String[] BarcodeTypes**

  If printer can print barcodes, this capability will return the list of barcode types supported.

- **boolean CanPrintFrames**

  Indicates if the printer supports frames printing.

- **boolean CanDetectMediaWidth**

  Indicates if the printer is able to know the width of the inserted media. If the printer has paper roll, this capability will not be used. If the value is *true*, the event sent by the command XPEAK_COMMAND_ENABLE_INSERT will return the width of the media.

- **boolean CanDetectMediaHeight**

  Indicates if the printer is able to know the height of the inserted media. If the printer has paper roll, this capability will not be used. If the value is *true*, the event sent by the command XPEAK_COMMAND_ENABLE_INSERT will return the height of the media.

- **boolean CanReadMagneticStripe**

  Indicates if the printer has the capability to read the magnetic stripe of the inserted media.

- **boolean CanWriteMagneticStripe**

  Indicates if the printer has the capability to write the magnetic stripe of the inserted media.

- **boolean CanPrintMultiplePages**

  Indicates if the printer can print more than one page without ejecting the paper.

XPEAK_COMMAND_GET_GRAPHICS_LOADED (0x70600D5)

Version: 0706

Description:

It returns the list of the graphics that have been loaded by the application with the command XPEAK_COMMAND_LOAD_GRAPHIC

Result:

- **Struct[] Graphics**
  The list of graphics loaded in the printer. The fields of each graphic are the following:

  - **String Name**
    Name of the graphic.

  - **int Format**
    Graphic format. Possible values are:
    - XPEAK_GRAPHIC_FORMAT_GIF (0x706008C)
    - XPEAK_GRAPHIC_FORMAT_BMP (0x706008D)
    - XPEAK_GRAPHIC_FORMAT_JPG (0x706008E)
    - XPEAK_GRAPHIC_FORMAT_TIF (0x706008F)
    - XPEAK_GRAPHIC_FORMAT_PCX (0x7060090)
    - XPEAK_GRAPHIC_FORMAT_PNG (0x7060091)

  - **long Timestamp**
    Same timestamp as the one indicated in the parameter when loading the graphic.

XPEAK_COMMAND_GET_LAST_PRINTED_LINE (0x706016D)

Version: 0706

Description:

Gets the last printed line of a passbook

Result:

- **int Result**

  Apart from the common values, this command could return as result:

Result	Description
XPEAK_RESULT_MEDIA_NOT_PRESENT (0x706005C)	No media inserted in the device.
XPEAK_RESULT_MEDIA_JAMMED (0x706005D)	Error due to a media jam.

XPEAK_COMMAND_GET_LAST_PRINTED_LINE (0x706016D)

XPEAK_COMMAND_GET_PAGE_NUMBER (0x706016C)

Version: 0706

Description:

Gets the page number in a passbook

Result:

- **int Result**

  Apart from the common values, this command could return as result:

Result	Description
XPEAK_RESULT_MEDIA_NOT_PRESENT (0x706005C)	No media inserted in the device.
XPEAK_RESULT_MEDIA_JAMMED (0x706005D)	Error due to a media jam.

XPEAK_COMMAND_GET_STATUS (0x7060051)

Version: 0706

Description:

This command allows to get different status of the device.

Result:

- **int[] Statuses**

  Possible values are:

Status	Description
XPEAK_STATUS_MEDIA_JAMMED (0x7060048)	There is a media jammed in the printer.
XPEAK_STATUS_MEDIA_PRESENT (0x706005E)	There is a media present in the printer. This status will not be considered in printers with paper roll.
XPEAK_STATUS_MEDIA_NOT_PRESENT (0x706005F)	There is not a media present in the printer. This status will not be considered in printers with paper roll.
XPEAK_STATUS_PAPER_OK (0x706017C)	Paper status ok.
XPEAK_STATUS_PAPER_FINISHED (0x7060095)	This status will indicate that there is no paper in case of those printers with paper roll or sheets tray.
XPEAK_STATUS_PAPER_ALMOST_FINISHED (0x7060096)	For printers with paper roll or sheets try, this status indicates that the paper is almost finished.
XPEAK_STATUS_PAPER_UNKNOWN (0x706017D)	Paper status unknown.
XPEAK_STATUS_SHUTTER_ERROR (0x7060097)	If the device has one or more shutters, this status will indicate an error in any of them.

Besides this statuses, the command can return any of the ones specified in the generic command XPEAK_COMMAND_GET_STATUS

XPEAK_COMMAND_LOAD_GRAPHIC (0x70600D3)

Version: 0706

Description:

This command can be used to load a graphic into the printer to be printed later. This command will only be accepted in case the *CanPrintGraphics* capability is equals *true*

Parameters:

- **String Name**

  Indicates the name of the graphic that will be used later to print it with the XPEAK_COMMAND_PRINT command. If there is already a graphic with the same name, it will be overwritten.

- **int Format**

  Specifies the format of the image contained in the *Value* field. This format should be one of the list indicated in the *GraphicFormats* capability. Possible values are:
  - XPEAK_GRAPHIC_FORMAT_GIF (0x706008C)
  - XPEAK_GRAPHIC_FORMAT_BMP (0x706008D)
  - XPEAK_GRAPHIC_FORMAT_JPG (0x706008E)
  - XPEAK_GRAPHIC_FORMAT_TIF (0x706008F)
  - XPEAK_GRAPHIC_FORMAT_PCX (0x7060090)
  - XPEAK_GRAPHIC_FORMAT_PNG (0x7060091)

- **long Timestamp**

  For the application to decide whether to reload a graphic or not, this field is use to save the timestamp of the last load. This field will be returned by the XPEAK_COMMAND_GET_GRAPHICS_LOADED command.

  It is recommended that the value of this field represents the milliseconds since the 1st of January of 1970, 00:00 GMT.

- **Base64 Value**

  This field contains the image data, according to the specified format on the *Format* field.

Result:

- **int Result**

  Apart from the common values, this command can return the following results:

Result	Description
XPEAK_RESULT_NOT_ENOUGH_SPACE (0x7060099)	There is not space enough in the printer to save the graphic

XPEAK_COMMAND_MAGNETIC_READ (0x706001A)

Version: 0706

Description:

This command reads the magnetic stripe of the inserted media. The *CanReadMagneticStripe* field of the XPEAK_COMMAND_GET_CAPABILITIES command determines if this command is supported or not.

Result:

- **int Result**

  Apart from the common values, this command can return the following results:

Result	Description
XPEAK_RESULT_MEDIA_NOT_PRESENT (0x706005C)	There is no media present in the printer
XPEAK_RESULT_MEDIA_JAMMED (0x706005D)	Error due to a media jam

- **Base64 Data**

  Data read from the magnetic stripe of the media.

XPEAK_COMMAND_MAGNETIC_WRITE (0x7060052)

Version: 0706

Description:

Writes the data specified in the `Data` parameter into the magnetic stripe of the inserted media. The `CanWriteMagneticStripe` capability returned by the XPEAK_COMMAND_GET_CAPABILITIES command determines if this command is supported or not.

Parameters:

- **Base64 Data**
  The data to be written in the magnetic stripe.

Result:

- **int Result**
  Apart from the common values, this command can return the following results:

Result	Description
XPEAK_RESULT_MEDIA_NOT_PRESENT (0x706005C)	There is no media present in the printer
XPEAK_RESULT_MEDIA_JAMMED (0x706005D)	Error due to a media jam

XPEAK_COMMAND_PRINT (0x70600D2)

Version: 0706

Description:

Print the data specified in the parameters. The media should have been previously inserted by the XPEAK_COMMAND_ENABLE_INSERT command

Parameters:

- **int Orientation**

  Determines if the printing will be in horizontal or vertical position. Possible values are:

    - XPEAK_PRINTER_ORIENTATION_PORTRAIT (0x7060079)
    - XPEAK_PRINTER_ORIENTATION_LANDSCAPE (0x706007A)

  Default value is XPEAK_PRINTER_ORIENTATION_PORTRAIT (0x7060079)

- **int Side**

  Specifies the side in which the data will be printed. Possible values are:

    - XPEAK_PRINTER_SIDE_FRONT (0x7060077)
    - XPEAK_PRINTER_SIDE_BACK (0x7060078)

  Default value is XPEAK_PRINTER_SIDE_FRONT (0x7060077)

- **double MinimumHeight**

  Indicates the minimum size, in inches, that the paper will go forward, if the height to print is less than this value. The default value is *0*.

- **double HorizontalOffset**

  Indicates the horizontal offset of the position of each field. This value will be added to each *Field[].X* parameter. The default value is *0*.

- **double VerticalOffset**

  Indicates the vertical offset of the position of each field. This value will be added to each *Field[].Y* parameter. The default value is *0*.

- **int[] Actions**

  Defines several actions to execute after the printing. The same result can be obtained executing XPEAK_COMMAND_ACTION command after XPEAK_COMMAND_PRINT. The possible values are:

    - XPEAK_PRINTER_ACTION_FLUSH (0x7060066)
    - XPEAK_PRINTER_ACTION_CUT (0x7060068)
    - XPEAK_PRINTER_ACTION_PARTIAL_CUT (0x7060067)
    - XPEAK_PRINTER_ACTION_STACK (0x7060069)

By default, no action will be executed, except if the **CanSkipPrintBuffer** capability is *false* and an automatic flush is done.

- **Struct[] Fields**

  A list of fields to print. The fields can be *Text*, *Graphic* and/or *Frame* fields. In case that, at the same position, more than one type of field is going to be printed, the printing order will be: *Graphic*, *Frame* and, finally, *Text*. The fields of this struct are:

  - **String Id**

    Logical identifier for the field to print. This field is only used to identify possible definition errors, that will be reported in the command answer. This field is optional.

  - **double X**

    Left position in which the printing will start. It is defined in inches.

  - **double Y**

    Position from the top in which the printing will start. It is defined in inches.

  - **double Width**

    Maximum width of the field to print. If the value is equals 0, there will be no control over the field width. It is defined in inches.

  - **double Height**

    Maximum height of the field to print. If the field is equals 0, there will be no control over the field height. It is defined in inches.

  - **int BackgroundColor**

    Color, in RGB format, that will be used to fill the area defined by X, Y, Width, Height. If the value of this field is equals -1, the area will not be filled.

  - **Struct Text**

    Information of the text to print. This field could be empty. The fields of this struct are the following:

    - **int ForegroundColor**

      Color, in RGB format, of the text. If no value specified, black will be the text color.

    - **Unicode Value**

      Value to print. Each character will be two bytes, using UNICODE.

    - **Struct Font**

      The font used to print this field. If this field is not specified, the printer will print with the default font.

      - **String Name**

Font name.

- **double CharactersPerInch**
  This field indicates the number of characters per inch (CPI). The service should adjust this value as much as possible.

- **double LinesPerInch**
  Based on this value, the service will stablishes the distance between lines, wether when the new line character is detected or when the field adjustment is done due to the word wrap.

- **int HorizontalAlignment**
  Sets the horizontal adjustment of the text. The possible values are:
  - XPEAK_PRINTER_ALIGNMENT_LEFT (0x706006A)
  - XPEAK_PRINTER_ALIGNMENT_RIGHT (0x706006B)
  - XPEAK_PRINTER_ALIGNMENT_CENTER (0x706006C)
  - XPEAK_PRINTER_ALIGNMENT_JUSTIFY (0x7060094)

  The default value is XPEAK_PRINTER_ALIGNMENT_LEFT (0x706006A)

- **int VerticalAlignment**
  Sets the vertical adjustment of the text. The possible values are:
  - XPEAK_PRINTER_ALIGNMENT_TOP (0x706006D)
  - XPEAK_PRINTER_ALIGNMENT_BOTTOM (0x706006E)
  - XPEAK_PRINTER_ALIGNMENT_CENTER (0x706006C)

  The default value is XPEAK_PRINTER_ALIGNMENT_TOP (0x706006D)

- **int Overflow**
  In case the field to print overflows the limits defined by the fields *Width* and *Height*, the service can do one of this actions:
  - XPEAK_PRINTER_OVERFLOW_ERROR (0x7060075)
  - XPEAK_PRINTER_OVERFLOW_TRUNCATE (0x7060076)

  The default value is XPEAK_PRINTER_OVERFLOW_TRUNCATE (0x7060076)

- **boolean WordWrap**
  If this field is *true* and the text to print does not fit in one line, the service will separate it in as many lines as needed. The values of the fields *LinesPerInch, Overflow, HorizontalAlignment and VerticalAlignment* will be considered. By default, this field will be *false*

- **int[] Styles**
  Different styles can be enabled, depending on the printer. If the style indicated is not supported by the printer, an event indicating it will be sent, but the field will be printed anyway. The possible styles are:

- XPEAK_PRINTER_STYLE_NORMAL (0x706007B)
- XPEAK_PRINTER_STYLE_BOLD (0x706007C)
- XPEAK_PRINTER_STYLE_ITALIC (0x706007D)
- XPEAK_PRINTER_STYLE_UNDER (0x706007E)
- XPEAK_PRINTER_STYLE_DOUBLE_UNDER (0x706007F)
- XPEAK_PRINTER_STYLE_DOUBLE_WIDTH (0x7060080)
- XPEAK_PRINTER_STYLE_TRIPLE_WIDTH (0x7060081)
- XPEAK_PRINTER_STYLE_QUADRUPLE_WIDTH (0x7060082)
- XPEAK_PRINTER_STYLE_STRIKE (0x7060083)
- XPEAK_PRINTER_STYLE_DOUBLE_STRIKE (0x7060084)
- XPEAK_PRINTER_STYLE_ROTATE_90 (0x7060085)
- XPEAK_PRINTER_STYLE_ROTATE_270 (0x7060086)
- XPEAK_PRINTER_STYLE_UPSIDE_DOWN (0x7060087)
- XPEAK_PRINTER_STYLE_DOUBLE_HEIGHT (0x7060088)
- XPEAK_PRINTER_STYLE_TRIPLE_HEIGHT (0x7060089)
- XPEAK_PRINTER_STYLE_QUADRUPLE_HEIGHT (0x7060092)
- XPEAK_PRINTER_STYLE_SUPER_SCRIPT (0x706008A)
- XPEAK_PRINTER_STYLE_SUB_SCRIPT (0x706008B)
- XPEAK_PRINTER_STYLE_OPAQUE (0x7060093)

The default value is XPEAK_PRINTER_STYLE_NORMAL (0x706007B)

- **Struct Graphic**
  This field contains the graphic data to print. This field can be empty. The fields inside this struct are:

  - **String Name**
    Name of the graphic to print. This name should be the same as the one previously used to load the graphic with the XPEAK_COMMAND_LOAD_GRAPHIC command.

  - **int HorizontalAlignment**
    Defines the horizontal adjustment of the graphic. Possible values are:
    - XPEAK_PRINTER_ALIGNMENT_LEFT (0x706006A)
    - XPEAK_PRINTER_ALIGNMENT_RIGHT (0x706006B)
    - XPEAK_PRINTER_ALIGNMENT_CENTER (0x706006C)

    The default value is XPEAK_PRINTER_ALIGNMENT_LEFT (0x706006A)

  - **int VerticalAlignment**
    Sets the vertical adjustment of the graphic. The possible values are:
    - XPEAK_PRINTER_ALIGNMENT_TOP (0x706006D)
    - XPEAK_PRINTER_ALIGNMENT_BOTTOM (0x706006E)
    - XPEAK_PRINTER_ALIGNMENT_CENTER (0x706006C)

    The default value is XPEAK_PRINTER_ALIGNMENT_TOP (0x706006D)

- **int Scaling**

  Specifies the way the graphic will be adapted to the specified size (parameters *Width* and *Height*. The possible values are:

Scaling	Description
XPEAK_PRINTER_SCALING_NONE (0x706006F)	The graphic will be shown the way it is. If the size of the graphic is bigger than the defined in the field, it will be truncated.
XPEAK_PRINTER_SCALING_ADJUST (0x7060070)	The graphic will be adjusted to fill the defined area.
XPEAK_PRINTER_SCALING_ADJUST_PROPORTIONAL (0x7060071)	It will be adjusted to the area, maintaining the horizontal and vertical ration

  The default value is XPEAK_PRINTER_SCALING_NONE (0x706006F)

- **Struct Frame**

  This field contains the data of the frame to print. This field can be empty. The fields inside this struct are:

  - **int ForegroundColor**

    Color, in RGB format, used to print the frame border. If the field is not defined, black will be the color used.

  - **int Thickness**

    Indicates the size of the frame border. Although it is defined in number of point, it could be different depending on the printer.

  - **int Style**

    Indicates the style of the border to print. Can be one of the following values:
    - XPEAK_PRINTER_FRAME_SINGLE (0x7060072)
    - XPEAK_PRINTER_FRAME_DOUBLE (0x7060073)
    - XPEAK_PRINTER_FRAME_DOTTED (0x7060074)

    The default value is XPEAK_PRINTER_FRAME_SINGLE (0x7060072)

Result:

- **int Result**

  This command can return the same results as the XPEAK_COMMAND_ACTION command, in case any action has been specified.

- **String[] ResultDetails**

  If the *Result* value is XPEAK_RESULT_INVALID_PARAMETER (0x706003A), this field will contain the list of wrong parameter fields. For instance, if a Text field with Id = "ACCOUNT" has a wrong Font, this field will have the value *Fields[ACCOUNT].Text.Font.Name*

XPEAK_COMMAND_PRINT (0x70600D2)

Version: 1304

Description:

Print the data specified in the parameters. The media should have been previously inserted by the XPEAK_COMMAND_ENABLE_INSERT command

Parameters:

- **int Orientation**

  Determines if the printing will be in horizontal or vertical position. Possible values are:
  - XPEAK_PRINTER_ORIENTATION_PORTRAIT (0x7060079)
  - XPEAK_PRINTER_ORIENTATION_LANDSCAPE (0x706007A)

  Default value is XPEAK_PRINTER_ORIENTATION_PORTRAIT (0x7060079)

- **int Side**

  Specifies the side in which the data will be printed. Possible values are:
  - XPEAK_PRINTER_SIDE_FRONT (0x7060077)
  - XPEAK_PRINTER_SIDE_BACK (0x7060078)

  Default value is XPEAK_PRINTER_SIDE_FRONT (0x7060077)

- **double MinimumHeight**

  Indicates the minimum size, in inches, that the paper will go forward, if the height to print is less than this value. The default value is *0*.

- **double HorizontalOffset**

  Indicates the horizontal offset of the position of each field. This value will be added to each *Field[].X* parameter. The default value is *0*.

- **double VerticalOffset**

  Indicates the vertical offset of the position of each field. This value will be added to each *Field[].Y* parameter. The default value is *0*.

- **double DocumentWidth**

  Indicates the width of the document in order to fit fields. If -1, this parameter is ignored.

- **int TotalPages**

  Total number of pages to be printed. If the *CanPrintMultiplePages* capacity is false, this parameter will be ignored. Otherwise, when printing the last page, some services need this information to perform a particular process

- **int Page**

  Indicates the page to print.

- **int[] Actions**

  Defines several actions to execute after the printing. The same result can be obtained executing XPEAK_COMMAND_ACTION command after XPEAK_COMMAND_PRINT. The possible values are:

    - XPEAK_PRINTER_ACTION_FLUSH (0x7060066)
    - XPEAK_PRINTER_ACTION_CUT (0x7060068)
    - XPEAK_PRINTER_ACTION_PARTIAL_CUT (0x7060067)
    - XPEAK_PRINTER_ACTION_STACK (0x7060069)

  By default, no action will be executed, except if the *CanSkipPrintBuffer* capability is *false* and an automatic flush is done.

- **Struct[] Fields**

  A list of fields to print. The fields can be *Text*, *Graphic*, *Barcode* and/or *Frame* fields. In case that, at the same position, more than one type of field is going to be printed, the printing order will be: *Graphic*, *Barcode*, *Frame* and, finally, *Text*. The fields of this struct are:

  - **String Id**

    Logical identifier for the field to print. This field is only used to identify possible definition errors, that will be reported in the command answer. This field is optional.

  - **double X**

    Left position in which the printing will start. It is defined in inches.

  - **double Y**

    Position from the top in which the printing will start. It is defined in inches.

  - **double Width**

    Maximum width of the field to print. If the value is equals 0, there will be no control over the field width. It is defined in inches.

  - **double Height**

    Maximum height of the field to print. If the field is equals 0, there will be no control over the field height. It is defined in inches.

  - **int BackgroundColor**

    Color, in RGB format, that will be used to fill the area defined by X, Y, Width, Height. If the value of this field is equals -1, the area will not be filled.

  - **Struct Text**

    Information of the text to print. This field could be empty. The fields of this struct are the following:

- **int ForegroundColor**
  Color, in RGB format, of the text. If no value specified, black will be the text color.

- **Unicode Value**
  Value to print. Each character will be two bytes, using UNICODE.

- **Struct Font**
  The font used to print this field. If this field is not specified, the printer will print with the default font.

  - **String Name**
    Font name.

  - **double CharactersPerInch**
    This field indicates the number of characters per inch (CPI). The service should adjust this value as much as possible.

- **double LinesPerInch**
  Based on this value, the service will stablishes the distance between lines, wether when the new line character is detected or when the field adjustment is done due to the word wrap.

- **int HorizontalAlignment**
  Sets the horizontal adjustment of the text. The possible values are:
  - XPEAK_PRINTER_ALIGNMENT_LEFT (0x706006A)
  - XPEAK_PRINTER_ALIGNMENT_RIGHT (0x706006B)
  - XPEAK_PRINTER_ALIGNMENT_CENTER (0x706006C)
  - XPEAK_PRINTER_ALIGNMENT_JUSTIFY (0x7060094)

  The default value is XPEAK_PRINTER_ALIGNMENT_LEFT (0x706006A)

- **int VerticalAlignment**
  Sets the vertical adjustment of the text. The possible values are:
  - XPEAK_PRINTER_ALIGNMENT_TOP (0x706006D)
  - XPEAK_PRINTER_ALIGNMENT_BOTTOM (0x706006E)
  - XPEAK_PRINTER_ALIGNMENT_CENTER (0x706006C)

  The default value is XPEAK_PRINTER_ALIGNMENT_TOP (0x706006D)

- **int Overflow**
  In case the field to print overflows the limits defined by the fields *Width* and *Height*, the service can do one of this actions:
  - XPEAK_PRINTER_OVERFLOW_ERROR (0x7060075)
  - XPEAK_PRINTER_OVERFLOW_TRUNCATE (0x7060076)

  The default value is XPEAK_PRINTER_OVERFLOW_TRUNCATE (0x7060076)

- **boolean WordWrap**

  If this field is *true* and the text to print does not fit in one line, the service will separate it in as many lines as needed. The values of the fields *LinesPerInch, Overflow, HorizontalAlignment and VerticalAlignment* will be considered. By default, this field will be *false*

- **int[] Styles**

  Different styles can be enabled, depending on the printer. If the style indicated is not supported by the printer, an event indicating it will be sent, but the field will be printed anyway. The possible styles are:

  - XPEAK_PRINTER_STYLE_NORMAL (0x706007B)
  - XPEAK_PRINTER_STYLE_BOLD (0x706007C)
  - XPEAK_PRINTER_STYLE_ITALIC (0x706007D)
  - XPEAK_PRINTER_STYLE_UNDER (0x706007E)
  - XPEAK_PRINTER_STYLE_DOUBLE_UNDER (0x706007F)
  - XPEAK_PRINTER_STYLE_DOUBLE_WIDTH (0x7060080)
  - XPEAK_PRINTER_STYLE_TRIPLE_WIDTH (0x7060081)
  - XPEAK_PRINTER_STYLE_QUADRUPLE_WIDTH (0x7060082)
  - XPEAK_PRINTER_STYLE_STRIKE (0x7060083)
  - XPEAK_PRINTER_STYLE_DOUBLE_STRIKE (0x7060084)
  - XPEAK_PRINTER_STYLE_ROTATE_90 (0x7060085)
  - XPEAK_PRINTER_STYLE_ROTATE_270 (0x7060086)
  - XPEAK_PRINTER_STYLE_UPSIDE_DOWN (0x7060087)
  - XPEAK_PRINTER_STYLE_DOUBLE_HEIGHT (0x7060088)
  - XPEAK_PRINTER_STYLE_TRIPLE_HEIGHT (0x7060089)
  - XPEAK_PRINTER_STYLE_QUADRUPLE_HEIGHT (0x7060092)
  - XPEAK_PRINTER_STYLE_SUPER_SCRIPT (0x706008A)
  - XPEAK_PRINTER_STYLE_SUB_SCRIPT (0x706008B)
  - XPEAK_PRINTER_STYLE_OPAQUE (0x7060093)

  The default value is XPEAK_PRINTER_STYLE_NORMAL (0x706007B)

- **Struct Graphic**

  This field contains the graphic data to print. This field can be empty. The fields inside this struct are:

- **String Name**

  Name of the graphic to print. This name should be the same as the one previously used to load the graphic with the XPEAK_COMMAND_LOAD_GRAPHIC command.

- **int HorizontalAlignment**

  Defines the horizontal adjustment of the graphic. Possible values are:

  - XPEAK_PRINTER_ALIGNMENT_LEFT (0x706006A)
  - XPEAK_PRINTER_ALIGNMENT_RIGHT (0x706006B)

        • XPEAK_PRINTER_ALIGNMENT_CENTER _(0x706006C)

The default value is XPEAK_PRINTER_ALIGNMENT_LEFT _(0x706006A)

- **int VerticalAlignment**
  Sets the vertical adjustment of the graphic. The possible values are:
  - XPEAK_PRINTER_ALIGNMENT_TOP _(0x706006D)
  - XPEAK_PRINTER_ALIGNMENT_BOTTOM _(0x706006E)
  - XPEAK_PRINTER_ALIGNMENT_CENTER _(0x706006C)

  The default value is XPEAK_PRINTER_ALIGNMENT_TOP _(0x706006D)

- **int Scaling**
  Specifies the way the graphic will be adapted to the specified size (parameters *Width* and *Height*. The possible values are:

Scaling	Description
XPEAK_PRINTER_SCALING_NONE (0x706006F)	The graphic will be shown the way it is. If the size of the graphic is bigger than the defined in the field, it will be truncated.
XPEAK_PRINTER_SCALING_ADJUST (0x7060070)	The graphic will be adjusted to fill the defined area.
XPEAK_PRINTER_SCALING_ADJUST_PROPORTIONAL (0x7060071)	It will be adjusted to the area, maintaining the horizontal and vertical ration

  The default value is XPEAK_PRINTER_SCALING_NONE _(0x706006F)

- **Struct Barcode**
  This field contains the barcode data to print. This field can be empty. The fields inside this struct are:

- **Unicode Value**
  This contains the barcode data to be printed. Each character will be two bytes, using UNICODE.

- **String Type**
  Defines the type of the barcode. If this field is not specified, the printer will print with the default type.

- **int TextPosition**
  This indicates if the barcode value will not be printed in readable characters or otherwise will be printed above or below the barcode. Possibles values are:
  - XPEAK_PRINTER_BARCODE_TEXT_BELOW _(0x13040001)
  - XPEAK_PRINTER_BARCODE_TEXT_ABOVE _(0x13040002)
  - XPEAK_PRINTER_BARCODE_TEXT_NONE _(0x13040003)

  The default value is XPEAK_PRINTER_BARCODE_TEXT_BELOW _(0x13040001)

- **int Rotation**

  This indicates the rotation with which barcode will be printed. Possibles values are:

  - XPEAK_PRINTER_STYLE_NORMAL (0x706007B)
  - XPEAK_PRINTER_STYLE_ROTATE_90 (0x7060085)
  - XPEAK_PRINTER_STYLE_ROTATE_270 (0x7060086)
  - XPEAK_PRINTER_STYLE_UPSIDE_DOWN (0x7060087)

  The default value is XPEAK_PRINTER_STYLE_NORMAL (0x706007B)

- **int HorizontalAlignment**

  Defines the horizontal adjustment of the barcode. Possible values are:

  - XPEAK_PRINTER_ALIGNMENT_LEFT (0x706006A)
  - XPEAK_PRINTER_ALIGNMENT_RIGHT (0x706006B)
  - XPEAK_PRINTER_ALIGNMENT_CENTER (0x706006C)

  The default value is XPEAK_PRINTER_ALIGNMENT_LEFT (0x706006A)

- **int VerticalAlignment**

  Sets the vertical adjustment of the barcode. The possible values are:

  - XPEAK_PRINTER_ALIGNMENT_TOP (0x706006D)
  - XPEAK_PRINTER_ALIGNMENT_BOTTOM (0x706006E)
  - XPEAK_PRINTER_ALIGNMENT_CENTER (0x706006C)

  The default value is XPEAK_PRINTER_ALIGNMENT_TOP (0x706006D)

- **int Scaling**

  Specifies the way the barcode will be adapted to the specified size (parameters *Width* and *Height*. The possible values are:

Scaling	Description
XPEAK_PRINTER_SCALING_NONE (0x706006F)	The barcode will be printed the way it is. If the size of the barcode is bigger than the defined in the field, it will not be printed.
XPEAK_PRINTER_SCALING_ADJUST (0x7060070)	The barcode will be adjusted to fill the defined area.
XPEAK_PRINTER_SCALING_ADJUST_PROPORTIONAL (0x7060071)	It will be adjusted to the area, maintaining the horizontal and vertical ration

  The default value is XPEAK_PRINTER_SCALING_NONE (0x706006F)

- **Struct Frame**

  This field contains the data of the frame to print. This field can be empty. The fields inside this struct are:

- **int ForegroundColor**

  Color, in RGB format, used to print the frame border. If the field is not defined, black will be the color used.

- **int Thickness**

  Indicates the size of the frame border. Althought it is defined in number of point, it could be different depending on the printer.

- **int Style**

  Indicates the style of the border to print. Can be one of the following values:
  - XPEAK_PRINTER_FRAME_SINGLE (0x7060072)
  - XPEAK_PRINTER_FRAME_DOUBLE (0x7060073)
  - XPEAK_PRINTER_FRAME_DOTTED (0x7060074)

  The default value is XPEAK_PRINTER_FRAME_SINGLE (0x7060072)

Result:

- **int Result**

  This command can return the same results as the XPEAK_COMMAND_ACTION command, in case any action has been specified.

- **String[] ResultDetails**

  If the *Result* value is XPEAK_RESULT_INVALID_PARAMETER (0x706003A), this field will contain the list of wrong parameter fields. For instance, if a Text field with Id = "ACCOUNT" has a wrong Font, this field will have the value *Fields[ACCOUNT].Text.Font.Name*

XPEAK_COMMAND_PRINT_TEXT (0x70600E8)

Version: 0706

Description:

Prints the text specified in the field *Text*. It will be printed with the font and size that the printer has defined in that moment. The text will be directly printed in the media without need to execute the XPEAK_PRINTER_ACTION_FLUSH (0x7060066) action. As the text is directly printed, the action XPEAK_PRINTER_ACTION_SKIP (0x7060065) is not possible to be executed.

Parameters:

- **Unicode Text**
  Text to print.

- **int[] Actions**
  Actions to execute after the printing. The same effect can be obtained executing the XPEAK_COMMAND_ACTION command. The possible values are:
  - XPEAK_PRINTER_ACTION_CUT (0x7060068)
  - XPEAK_PRINTER_ACTION_PARTIAL_CUT (0x7060067)
  - XPEAK_PRINTER_ACTION_STACK (0x7060069)

  No action will be executed by default.

Result:

- **int Result**
  Apart from the common values, this command could return as result:

Result	Description
XPEAK_RESULT_MEDIA_NOT_PRESENT (0x706005C)	No media inserted in the device.
XPEAK_RESULT_MEDIA_JAMMED (0x706005D)	Error due to a media jam.

XPEAK_COMMAND_RESET_CAPTURE_BIN_COUNT (0x70600D1)

Version: 0706

Description:

Sets to zero the number of captured documents

Result:

See Common Results

XPEAK_COMMAND_RETRACT (0x70600A6)

Version: 0706

Description:

Captures a media that had been previously ejected with the XPEAK_COMMAND_EJECT command. If the device has an output shutter, it will be automatically closed after the media is captured.

Result:

- **int Result**

  Apart from the common values, this command could return as result:

Result	Description
XPEAK_RESULT_MEDIA_NOT_PRESENT (0x706005C)	No media in the device to be retracted. It is possible that the user took the media after the timeout of the XPEAK_COMMAND_EJECT command.
XPEAK_RESULT_MEDIA_JAMMED (0x706005D)	Error due to a media jam retracting the media.
XPEAK_RESULT_SHUTTER_ERROR (0x7060061)	Shutter error.
XPEAK_RESULT_CAPTURE_BIN_FULL (0x7060050)	The capture bin is full and the media capture could not be executed. The capture bin should be emptied and the counter reseted with the XPEAK_COMMAND_RESET_CAPTURE_BIN_COUNT command

- **int CaptureBinCount**

  Number of documents in the capture bin, including the document retracted with this command.

XPEAK_COMMAND_TURN_PAGE (0x7060169)

Version: 0706

Description:

Turns the page backward or forward as many times as indicated in PagesToTurn parameter

Parameters:

- **int PagesToTurn**

  Indicates the number of pages that the passbook will turn *0*.

- **int Direction**

  Specifies the direction that the passbook will turn. Possible values are:
    - XPEAK_PRINTER_TURN_PAGE_BACKWARD (0x706016B)
    - XPEAK_PRINTER_TURN_PAGE_FORWARD (0x706016A)

Result:

- **int Result**

  Apart from the common values, this command could return as result:

Result	Description
XPEAK_RESULT_MEDIA_NOT_PRESENT (0x706005C)	No media inserted in the device.
XPEAK_RESULT_MEDIA_JAMMED (0x706005D)	Error due to a media jam.