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CHECK SERVICE

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INTRODUCTION

This documentation details the specific set of commands for check devices. These, along with *common commands* conform the complete set of commands available for check devices. Sometimes, certain *common commands* can be overwritten within a specific service, because they change their behavior. In the case of `Check 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_CALIBRATE (0x11030001)

Version: 1103

Description:

Some devices need to be calibrated in order to work properly. This command is used to calibrate the device. Commonly, devices need some kind of media during this operation. Due to this, the XPEAK_COMMAND_ENABLE_INSERT command should be called before this command is executed. If no media is required during the calibrate operation, the XPEAK_RESULT_MEDIA_INSERTED (0x7060060) event will be automatically sent by the service.

Result:

- **int Result**

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

Result	Description
XPEAK_RESULT_MEDIA_NOT_PRESENT (0x706005C)	The media required to calibrate the reader is not present in the device and so, it is not possible to execute the calibration.
XPEAK_RESULT_MEDIA_JAMMED (0x706005D)	Error due to a check jam

XPEAK_COMMAND_DISABLE_INSERT (0x7060019)

Version: 0706

Description:

Disables the insertion of the check in the reader.

Result:

- **int Result**

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

Result	Description
XPEAK_RESULT_MEDIA_INSERTED (0x7060060)	A check was already inserted

XPEAK_COMMAND_EJECT (0x7060039)

Version: 0706

Description:

This command ejects the check previously inserted by the XPEAK_COMMAND_ENABLE_INSERT command. If the device has an output shutter, it will be automatically open with this command.

Parameters:

- **int Timeout**

  If the field *HasCheckTakenSensor* of the command XPEAK_COMMAND_GET_CAPABILITIES is *true*, the service will wait for the check to be taken by the user during this time (in milliseconds). If this value is less than zero, the device will wait for the check to be taken without timeout or until a XPEAK_COMMAND_RETRACT is executed. If there is any error, it will be notified by an event.

  This command will not be supported by *SWIPE* check readers.

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 check inside the reader. No events will be sent.
XPEAK_RESULT_MEDIA_JAMMED (0x706005D)	There was a jam trying to eject the check. No consequent events will be sent.
XPEAK_RESULT_SHUTTER_ERROR (0x7060061)	There is an error in the output shutter and the check can not be ejected. No consequent events will be sent.

Events:

XPEAK_RESULT_MEDIA_TAKEN (0x7060062) Since 0706

This event is thrown when the user takes the check. The output shutter, if any, will be automatically closed. If the device has no sensor to detect if the check was taken, this event will not be sent. This capability (*HasCheckTakenSensor*) can be obtained through the command XPEAK_COMMAND_GET_CAPABILITIES

XPEAK_COMMAND_ENABLE_INSERT (0x7060018)

Version: 0706

Description:

Enables the insertion of the check. If the device has an input shutter, this will be automatically open on the execution of this command. If the card reader device is a *SWIPE* one, this command will also read the check, although the read data will not be returned until the command XPEAK_COMMAND_READ is received.

Parameters:

- **int Timeout**

  The insertion of the check will be enabled during this time (in milliseconds) or until the check is inserted. If this value is less than zero, the device will be enabled until the command XPEAK_COMMAND_DISABLE_INSERT is executed or until the check is inserted.

  If there is any error, it will be notified by an event.

Result:

- **int Result**

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

Result	Description
XPEAK_RESULT_MEDIA_INSERTED (0x7060060)	There was a check already inside the reader. No events will be sent.
XPEAK_RESULT_SHUTTER_ERROR (0x7060061)	There is an error in the shutter and the insertion of the check can not be enabled. No events will be sent.

Events:

XPEAK_RESULT_MEDIA_INSERTED (0x7060060) Since 0706

  This event is thrown in the moment that a check is detected in the reader device. The shutter, if any, will be automatically closed.

XPEAK_RESULT_MEDIA_JAMMED (0x706005D) Since 0706

  This event indicates that the check was jammed inside the reader. The shutter, if any and possible, will be automatically closed.

XPEAK_COMMAND_ENABLE_INSERT (0x7060018)

Version: 1103

Description:

Enables the insertion of the check. If the device has an input shutter, this will be automatically open on the execution of this command. If the card reader device is a *SWIPE* one, this command will also read the check, although the read data will not be returned until the command XPEAK_COMMAND_READ is received.

Parameters:

- **int Timeout**
  The insertion of the check will be enabled during this time (in milliseconds) or until the check is inserted. If this value is less than zero, the device will be enabled until the command XPEAK_COMMAND_DISABLE_INSERT is executed or until the check is inserted.

  If there is any error, it will be notified by an event.

- **int Operation**
  Indicates the operation that is going to be executed. Can be one of the following values:

Operation	Description
XPEAK_COMMAND_READ (0x7060106)	A check read operation (XPEAK_COMMAND_READ) will be performed
XPEAK_COMMAND_CALIBRATE (0x11030001)	A check reader calibration (XPEAK_COMMAND_CALIBRATE) will be performed

Result:

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

Result	Description
XPEAK_RESULT_MEDIA_INSERTED (0x7060060)	There was a check already inside the reader. No events will be sent.
XPEAK_RESULT_SHUTTER_ERROR (0x7060061)	There is an error in the shutter and the insertion of the check can not be enabled. No events will be sent.

Events:

XPEAK_RESULT_MEDIA_INSERTED (0x7060060) Since 0706
  This event is thrown in the moment that a check is detected in the reader device. The shutter, if any, will be automatically closed.

XPEAK_RESULT_MEDIA_JAMMED (0x706005D) Since 0706

This event indicates that the check was jammed inside the reader. The shutter, if any and possible, will be automatically closed.

XPEAK_COMMAND_ENABLE_INSERT (0x7060018)

Version: 1304

Description:

Enables the insertion of the check. If the device has an input shutter, this will be automatically open on the execution of this command. If the card reader device is a *SWIPE* one, this command will also read the check, although the read data will not be returned until the command XPEAK_COMMAND_READ is received.

Parameters:

- **int Timeout**
  The insertion of the check will be enabled during this time (in milliseconds) or until the check is inserted. If this value is less than zero, the device will be enabled until the command XPEAK_COMMAND_DISABLE_INSERT is executed or until the check is inserted.

  If there is any error, it will be notified by an event.

- **int Operation**
  Indicates the operation that is going to be executed. Can be one of the following values:

Operation	Description
XPEAK_COMMAND_READ (0x7060106)	A check read operation (XPEAK_COMMAND_READ) will be performed
XPEAK_COMMAND_READ_MULTI (0x13040004)	A check readMulti operation (XPEAK_COMMAND_READ_MULTI) will be performed
XPEAK_COMMAND_CALIBRATE (0x11030001)	A check reader calibration (XPEAK_COMMAND_CALIBRATE) will be performed

Result:

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

Result	Description
XPEAK_RESULT_MEDIA_INSERTED (0x7060060)	There was a check already inside the reader. No events will be sent.
XPEAK_RESULT_SHUTTER_ERROR (0x7060061)	There is an error in the shutter and the insertion of the check can not be enabled. No events will be sent.

Events:

XPEAK_RESULT_MEDIA_INSERTED (0x7060060) Since 0706
  This event is thrown in the moment that a check is detected in the reader device. The shutter, if any, will be automatically closed.

XPEAK_RESULT_MEDIA_JAMMED (0x706005D) Since 0706

This event indicates that the check was jammed inside the reader. The shutter, if any and possible, will be automatically closed.

XPEAK_COMMAND_GET_CAPABILITIES (0x7060017)

Version: 0706

Description:

Returns the device capabilities. Depending on them, the application behavior should be different and should be adapted to the peripheral characteristics.

Result:

- **int Type**

  This capability indicates the type of card reader. Possible values are:
  - XPEAK_CHECK_TYPE_MOTOR (0x706013F)
  - XPEAK_CHECK_TYPE_SWIPE (0x706013E)

- **int[] Fonts**

  Fonts supported by the check reader. Possible values are:
  - XPEAK_CHECK_FONT_MICR (0x7060140)
  - XPEAK_CHECK_FONT_OCR (0x7060141)

- **int CaptureBinCapacity**

  Indicates the maximum number of checks that can be captured (by the XPEAK_COMMAND_RETRACT) and stored in the capture bin.

- **boolean HasCheckTakenSensor**

  Indicates if the device has a sensor to detect when the ejected check is taken by the user. If it is *false* the command XPEAK_COMMAND_EJECT will not send the XPEAK_RESULT_MEDIA_TAKEN (0x7060062) event.

XPEAK_COMMAND_GET_CAPABILITIES (0x7060017)

Version: 1101

Description:

Returns the device capabilities. Depending on them, the application behavior should be different and should be adapted to the peripheral characteristics.

Result:

- **int Type**
  This capability indicates the type of card reader. Possible values are:
  - XPEAK_CHECK_TYPE_MOTOR (0x706013F)
  - XPEAK_CHECK_TYPE_SWIPE (0x706013E)

- **int[] Fonts**
  Fonts supported by the check reader. Possible values are:
  - XPEAK_CHECK_FONT_MICR (0x7060140)
  - XPEAK_CHECK_FONT_OCR (0x7060141)

- **int CaptureBinCapacity**
  Indicates the maximum number of checks that can be captured (by the XPEAK_COMMAND_RETRACT) and stored in the capture bin.

- **boolean HasCheckTakenSensor**
  Indicates if the device has a sensor to detect when the ejected check is taken by the user. If it is *false* the command XPEAK_COMMAND_EJECT will not send the XPEAK_RESULT_MEDIA_TAKEN (0x7060062) event.

- **int[] ScanSides**
  This field indicates which sides of the documents the check reader is able to capture with the command XPEAK_COMMAND_READ. The possible values are:
  - XPEAK_SIDE_FRONT (0x7060177)
  - XPEAK_SIDE_BACK (0x7060178)

- **int[] ImageFormats**
  List of image formats supported by the command XPEAK_COMMAND_READ. If the device is not able to scan, this array will be empty. 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)

- XPEAK_GRAPHIC_FORMAT_RAW (0x7060176)

XPEAK_COMMAND_GET_CAPABILITIES (0x7060017)

Version: 1103

Description:

Returns the device capabilities. Depending on them, the application behavior should be different and should be adapted to the peripheral characteristics.

Result:

- **int Type**

  This capability indicates the type of card reader. Possible values are:
  - XPEAK_CHECK_TYPE_MOTOR (0x706013F)
  - XPEAK_CHECK_TYPE_SWIPE (0x706013E)

- **int[] Fonts**

  Fonts supported by the check reader. Possible values are:
  - XPEAK_CHECK_FONT_MICR (0x7060140)
  - XPEAK_CHECK_FONT_OCR (0x7060141)

- **int CaptureBinCapacity**

  Indicates the maximum number of checks that can be captured (by the XPEAK_COMMAND_RETRACT) and stored in the capture bin.

- **boolean HasCheckTakenSensor**

  Indicates if the device has a sensor to detect when the ejected check is taken by the user. If it is *false* the command XPEAK_COMMAND_EJECT will not send the XPEAK_RESULT_MEDIA_TAKEN (0x7060062) event.

- **int[] ScanSides**

  This field indicates which sides of the documents the check reader is able to capture with the command XPEAK_COMMAND_READ. The possible values are:
  - XPEAK_SIDE_FRONT (0x7060177)
  - XPEAK_SIDE_BACK (0x7060178)

- **int[] ImageFormats**

  List of image formats supported by the command XPEAK_COMMAND_READ. If the device is not able to scan, this array will be empty. 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)

- XPEAK_GRAPHIC_FORMAT_RAW _(0x7060176)

- **boolean CanCalibrate**

  Indicates if the device has calibration capability, i.e. if it supports the
  XPEAK_COMMAND_CALIBRATE command.

XPEAK_COMMAND_GET_CAPABILITIES (0x7060017)

Version: 1304

Description:

Returns the device capabilities. Depending on them, the application behavior should be different and should be adapted to the peripheral characteristics.

Result:

- **int Type**
  This capability indicates the type of card reader. Possible values are:
    - XPEAK_CHECK_TYPE_MOTOR (0x706013F)
    - XPEAK_CHECK_TYPE_SWIPE (0x706013E)

- **int[] Fonts**
  Fonts supported by the check reader. Possible values are:
    - XPEAK_CHECK_FONT_MICR (0x7060140)
    - XPEAK_CHECK_FONT_OCR (0x7060141)

- **int CaptureBinCapacity**
  Indicates the maximum number of checks that can be captured (by the XPEAK_COMMAND_RETRACT) and stored in the capture bin.

- **boolean HasCheckTakenSensor**
  Indicates if the device has a sensor to detect when the ejected check is taken by the user. If it is *false* the command XPEAK_COMMAND_EJECT will not send the XPEAK_RESULT_MEDIA_TAKEN (0x7060062) event.

- **int[] ScanSides**
  This field indicates which sides of the documents the check reader is able to capture with the command XPEAK_COMMAND_READ. The possible values are:
    - XPEAK_SIDE_FRONT (0x7060177)
    - XPEAK_SIDE_BACK (0x7060178)

- **int[] ImageFormats**
  List of image formats supported by the command XPEAK_COMMAND_READ. If the device is not able to scan, this array will be empty. 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)

- XPEAK_GRAPHIC_FORMAT_RAW (0x7060176)

- **boolean CanCalibrate**
  Indicates if the device has calibration capability, i.e. if it supports the XPEAK_COMMAND_CALIBRATE command.

- **boolean CanPrint**
  Indicates if the device can print the check while is reading it.

- **int[] PrintSides**
  Indicates the check sides that can be printed by the device while reading. If this list is empty, it means that the check reader can not print while reading. The possible values are:
  - XPEAK_PRINTER_SIDE_FRONT (0x7060077)
  - XPEAK_PRINTER_SIDE_BACK (0x7060078)

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

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

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

- **int[] PrintStyles**
  Indicates the list of the different printing styles that the check 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 check printer while reading.

- **int[] PrintGraphicFormats**
  If the check 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)

XPEAK_COMMAND_GET_STATUS (0x7060051)

Version: 0706

Description:

This command allows to get different status of the device.

Result:

- **int[] Statuses**

    Apart from the general statuses, possible values are:

Status	Description
XPEAK_STATUS_MEDIA_JAMMED (0x7060048)	There is a media jammed in the check reader.
XPEAK_STATUS_MEDIA_PRESENT (0x706005E)	There is a media present in the device.
XPEAK_STATUS_MEDIA_NOT_PRESENT (0x706005F)	There is not a media present in the device.
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_READ (0x7060106)

Version: 0706

Description:

This command reads the check.

Result:

- **int Result**

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

Result	Description
XPEAK_RESULT_INVALID_DATA (0x7060098)	A document is present or has been inserted, but no check data could be read or it could be read incompletely. If only a portion of the check data could be read, the *Data* field will contain the read data.
XPEAK_RESULT_MEDIA_NOT_PRESENT (0x706005C)	There is no check present in the reader. For *SWIPE* card readers, this error will be launched if it is not possible to read the check data.
XPEAK_RESULT_MEDIA_JAMMED (0x706005D)	Error due to a check jam

- **Unicode Data**

  Data read from the check.

XPEAK_COMMAND_READ (0x7060106)

Version: 1101

Description:

This command reads the check.

Parameters:

- **int ImageFormat**

  If the device has the scanning capability, this parameter defines the format of the scanned image data. This format should be one of the list indicated in the **ImageFormats** capability, see command XPEAK_COMMAND_GET_CAPABILITIES. The possible values are:
  - XPEAK_GRAPHIC_FORMAT_NONE (0x706017B)
  - 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)
  - XPEAK_GRAPHIC_FORMAT_RAW (0x7060176)

  Please note that if the value of this parameter is XPEAK_GRAPHIC_FORMAT_NONE, no image data will be returned by this command.

- **int[] Sides**

  This field indicates which sides of the document should be scanned. This values must be some of the values contained in the **ScanSides** capability, see command XPEAK_COMMAND_GET_CAPABILITIES. The possible values are:
  - XPEAK_SIDE_FRONT (0x7060177)
  - XPEAK_SIDE_BACK (0x7060178)

Result:

- **int Result**

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

Result	Description
XPEAK_RESULT_INVALID_DATA (0x7060098)	A document is present or has been inserted, but no check data could be read or it could be read incompletely. If only a portion of the check data could be read, the *Data* field will contain the read data.
XPEAK_RESULT_MEDIA_NOT_PRESENT (0x706005C)	There is no check present in the reader. For *SWIPE* card readers, this error will be launched if it is not possible to read the check data.
XPEAK_RESULT_MEDIA_JAMMED (0x706005D)	Error due to a check jam

- **Unicode Data**

  Data read from the check.

- **Base64 FrontImage**

  This field contains the image data of the front side of the check. The corresponding capability indicates if the device can scan the front side of the check or not. See XPEAK_COMMAND_GET_CAPABILITIES.

- **Base64 BackImage**

  This field contains the image data of the back side of the check. The corresponding capability indicates if the device can scan the back side of the check or not. See XPEAK_COMMAND_GET_CAPABILITIES.

XPEAK_COMMAND_READ (0x7060106)

Version: 1304

Description:

This command reads the check.

Parameters:

- **int ImageFormat**

  If the device has the scanning capability, this parameter defines the format of the scanned image data. This format should be one of the list indicated in the *ImageFormats* capability, see command XPEAK_COMMAND_GET_CAPABILITIES. The possible values are:
    - XPEAK_GRAPHIC_FORMAT_NONE (0x706017B)
    - 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)
    - XPEAK_GRAPHIC_FORMAT_RAW (0x7060176)

  Please note that if the value of this parameter is XPEAK_GRAPHIC_FORMAT_NONE, no image data will be returned by this command.

- **int[] Sides**

  This field indicates which sides of the document should be scanned. This values must be some of the values contained in the *ScanSides* capability, see command XPEAK_COMMAND_GET_CAPABILITIES. The possible values are:
    - XPEAK_SIDE_FRONT (0x7060177)
    - XPEAK_SIDE_BACK (0x7060178)

- **Struct Print**

  This field indicates if something should be printed in the check. This field can be empty. The fields inside this struct are:

  - **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_BACK (0x7060078)

  - **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**.

- **Struct[] Fields**
  A list of fields to print. The fields can be **Text** and/or **Graphic** 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** 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.

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

    - **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 *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:

- **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)

- **Base64 Value**
  This field contains the image data, according to the specified format on the *Format* field.

- **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)

📇 Result:

- **int Result**

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

Result	Description
XPEAK_RESULT_INVALID_DATA (0x7060098)	A document is present or has been inserted, but no check data could be read or it could be read incompletely. If only a portion of the check data could be read, the *Data* field will contain the read data.
XPEAK_RESULT_MEDIA_NOT_PRESENT (0x706005C)	There is no check present in the reader. For *SWIPE* card readers, this error will be launched if it is not possible to read the check data.
XPEAK_RESULT_MEDIA_JAMMED (0x706005D)	Error due to a check jam

- **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 *Print.Fields[ACCOUNT].Text.Font.Name*

- **Unicode Data**

  Data read from the check.

- **Base64 FrontImage**

  This field contains the image data of the front side of the check. The corresponding capability indicates if the device can scan the front side of the check or not. See

XPEAK_COMMAND_GET_CAPABILITIES.

- **Base64 BackImage**
  This field contains the image data of the back side of the check. The corresponding capability indicates if the device can scan the back side of the check or not. See XPEAK_COMMAND_GET_CAPABILITIES.

XPEAK_COMMAND_READ_MULTI (0x13040004)

Version: 1304

Description:

This command reads the current checks.

Parameters:

- **int ImageFormat**

  If the device has the scanning capability, this parameter defines the format of the scanned image data. This format should be one of the list indicated in the *ImageFormats* capability, see command XPEAK_COMMAND_GET_CAPABILITIES. The possible values are:

  - XPEAK_GRAPHIC_FORMAT_NONE (0x706017B)
  - 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)
  - XPEAK_GRAPHIC_FORMAT_RAW (0x7060176)

  Please note that if the value of this parameter is XPEAK_GRAPHIC_FORMAT_NONE, no image data will be returned by this command.

- **int[] Sides**

  This field indicates which sides of the document should be scanned. This values must be some of the values contained in the *ScanSides* capability, see command XPEAK_COMMAND_GET_CAPABILITIES. The possible values are:

  - XPEAK_SIDE_FRONT (0x7060177)
  - XPEAK_SIDE_BACK (0x7060178)

- **Struct Print**

  This field indicates if something should be printed in the checks. This field can be empty. The fields inside this struct are:

  - **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_BACK (0x7060078)

  - **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`.

- **Struct[] Fields**

  A list of fields to print. The fields can be *Text* and/or *Graphic* 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* 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.

  - **Struct Text**

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

    - **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 *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:

- **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)

- **Base64 Value**
  This field contains the image data, according to the specified format on the $Format$ field.

- **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)

Result:

- **int Result**

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

Result	Description
XPEAK_RESULT_INVALID_DATA (0x7060098)	A document is present or has been inserted, but no check data could be read or it could be read incompletely. If only a portion of the check data could be read, the *Data* field will contain the read data.
XPEAK_RESULT_MEDIA_NOT_PRESENT (0x706005C)	There is no checks presents in the reader. For *SWIPE* card readers, this error will be launched if it is not possible to read the check data.
XPEAK_RESULT_MEDIA_JAMMED (0x706005D)	Error due to a check jam

- **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 *Print.Fields[ACCOUNT].Text.Font.Name*

- **Unicode[] Data**

List of data read from the checks.

- **String Url**

url of the scanned images.

XPEAK_COMMAND_RESET_CAPTURE_BIN_COUNT (0x70600D1)

Version: 0706

Description:

This command sets to zero the counter of captured checks.

Result:

See Common Results

XPEAK_COMMAND_RETRACT (0x70600A6)

Version: 0706

Description:

Retracts a check. A check can be retracted whether when it is inserted in the reader or when it was previously ejected by the XPEAK_COMMAND_EJECT command. If the device has an output shutter, it will be automatically closed after the retract action.

This command will not be supported by *SWIPE* check readers.

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 check to be retracted. It is possible that the user took it after the timeout of the command XPEAK_COMMAND_EJECT.
XPEAK_RESULT_MEDIA_JAMMED (0x706005D)	The check was jammed.
XPEAK_RESULT_SHUTTER_ERROR (0x7060061)	There was a shutter error.
XPEAK_RESULT_CAPTURE_BIN_FULL (0x7060050)	The retain bin is full and the retract operation could not be executed. The retain bin should be emptied and the counter reset through the XPEAK_COMMAND_RESET_CAPTURE_BIN_COUNT command.

- **int CaptureBinCount**

    Number of checks on the Capture Bin, including the check retracted with the current command.