Honeywell

Verifier Integration Interface

For PX940V Printer

Command Reference

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TABLE OF CONTENTS

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CHAPTER

1 GET STARTED

The PX940V is a rugged label printer with ANSI Grade (ISO15415/15416) verification for label printing.

The Verifier Integration Interface of the PX940V printer allows you to communicate with the printer through a host PC setup. Using the Verifier Integration Interface (VII), verification data can be collected as images and XML reports.

A TCP/IP connection needs to be configured between the printer and host PC for communication.

Features

The verifier identifies and verifies the printed barcode using supported command languages.

The VII can be used for the following:

- Label validation
- Secondary Grading
- Grading Barcodes
- Storing Audit Trails
- Label Duplication Detection
- Label Serialization Detection

About this Manual

This command reference provides you information about the interface between the printer with the verifier and a host PC and a set of commands to help you create applications for the PX940V Printer.

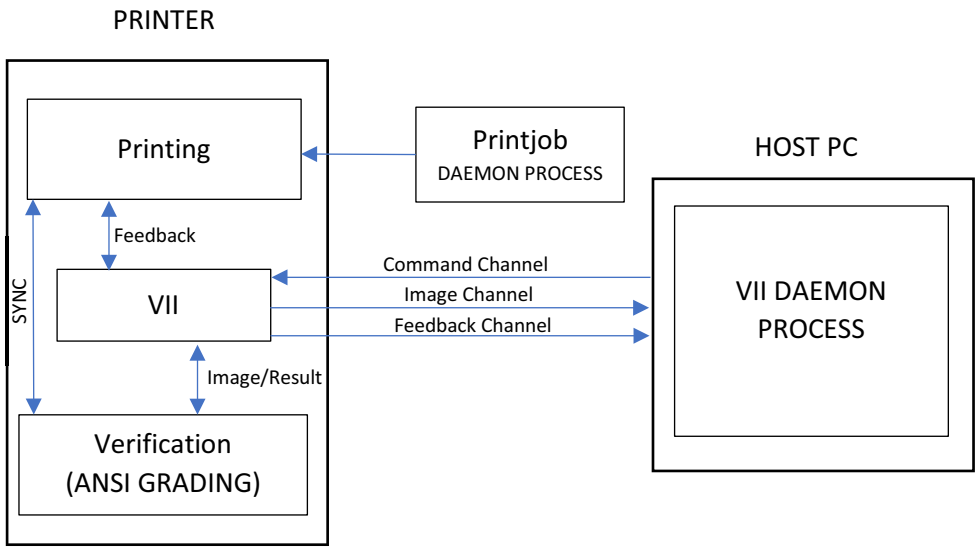
The following abbreviations are used in this guide:

- VII - Verifier Integration Interface

- TPH - Thermal PrintHead

Interface Diagram

The interface between the VII and the host PC is illustrated below:



Data Protocol

XML is the data format set for the host PC to communicate with Verifier Integration Interface.

Network Interface

A TCP/IP network interface is set up for the host PC to access the printer.

Note: *While one host can be connected to multiple printers, each printer can only be connected to a single host at a time.*

CHAPTER

2 PRINTER AND HOST PC SETUP

This chapter provides details to set up communication between VII and Host PC.

Set Up Printer

User can set up the printer through a web page or the printer LCD.

Access the Printer Web Page

1. Open a browser window on your PC.
2. In the location or address bar, type the printer IP address and press Enter.
3. Click **Login**. The login page appears.

You will be prompted to enter a username and password. The defaults are:

- User Name: **itadmin**
- Password: **pass**

After logging In, you will be prompted to change the password.

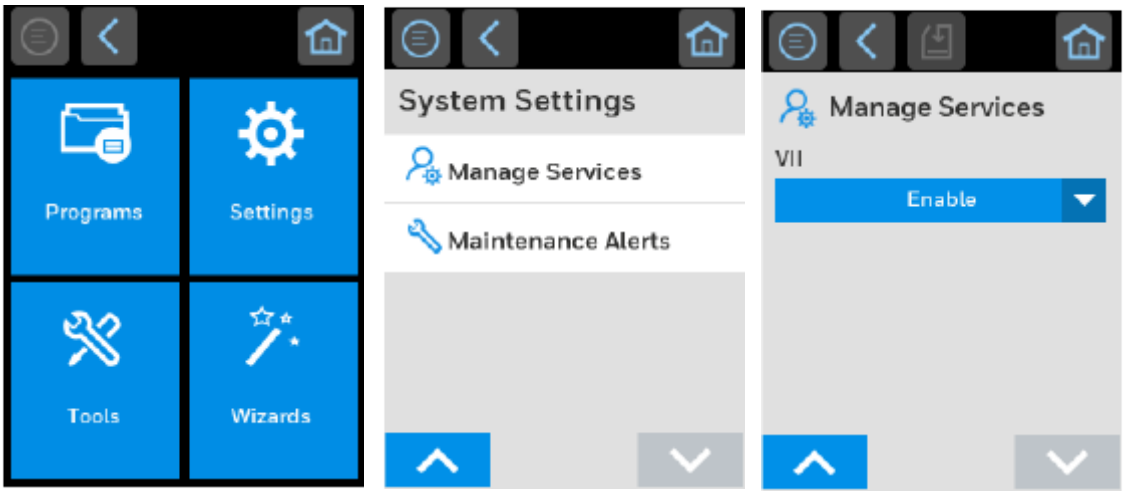
Configure VII

Before being able to configure the verifier integration interface service, it must be enabled in the Manage service configuration.

To enable the verifier integration interface service through the web page, click **Configure** > **System Settings** > **Manage Services**.

or

Through the front touch panel.

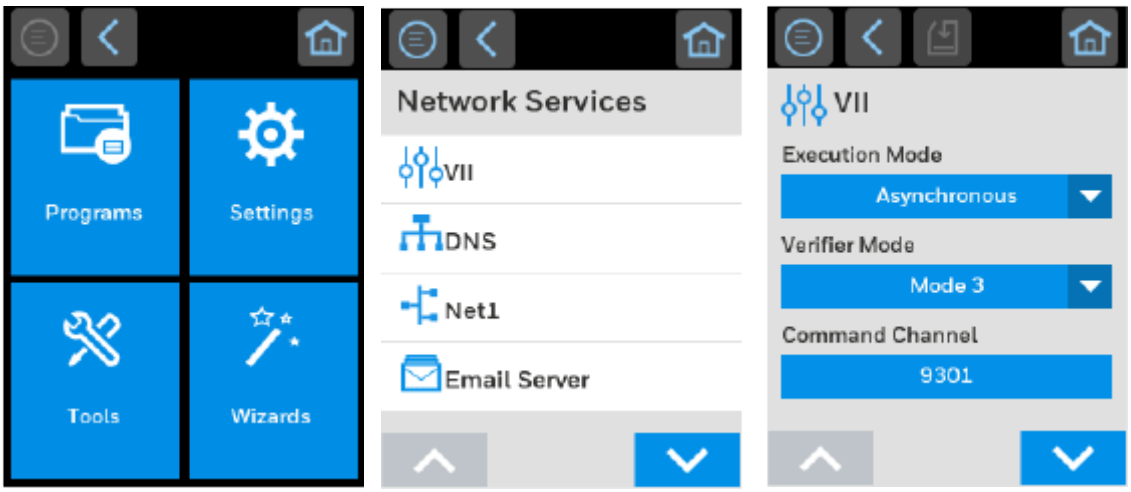


Once the VII is enabled in the Manage services section, you can configure VII in detail through the web page.

Click **Configure** > **Network Services** > **VII**.

or

Through the front touch panel.



The options for the VII are as follows:

- Execution Mode
- Verifier Mode
- Command Channel
- Image Channel
- Feedback Channel

Execution Mode

The Execution Mode allows you to control the synchronization between label printing and printed label capture and verification.

Asynchronous Mode

One label is inspected while the next label is being printed and/or having its image scanned.

Synchronous Mode

A single label is printed, image scanned and fully inspected before any other labels are printed.

The default value is Asynchronous.

Verifier Mode

The verification modes define the types of the verification process.
For the VII, there are three types of verification modes:

1. Mode1 - Scan
2. Mode2 - Scan and grade
3. Mode3 - Scan, grade and control

Verifier Modes and Description

Modes	Operation	Description
Mode1	Scan	The verifier will only scan the printed image, it will not do barcode inspection. The host retrieves the image, analyzes it and control the printer action.
Mode2	Scan and grade	The verifier will inspect the barcode. The host controls the printer action and could also analyze the image. If the image channel is enabled from host, the label image will be sent to host, otherwise the label image will not be sent to host.
Mode3	Scan, grade and control	The verifier inspect barcode and do failure action handling. The host captures reports and images for storage. The barcode verification result will be sent to host via feedback channel. If image channel is enabled from host, the label image will be sent to host, otherwise the label image will not be sent to host.

For verifier modes 1 and 2, the printer will wait for the verification result from host. In Synchronous Mode on page 5, if printer does not receive verification result from host, printer will stop after printing 1 label.

In Asynchronous Mode on page 5, printer will stop after printing X number of labels depending on the label length as indicated in the table below.

Label number and Label Length range

Label Length Range (inches)	Number of labels (X)
> 4.00	3
> 0.68	4
> 0.52	5
> 0.41	6
> 0.35	7
> 0.30	8
> 0.26	9
> 0.24	10
> 0.00	11

Command Channel, Feedback Channel, and Image Channel

Defines the port used for the host to connect to the printer. The range of the port number is 9301 - 65535.

Note: *Your firewall must be configured to allow these ports to be accessible otherwise a failure may occur.*

All the three communication channels must be opened to send or receive any data from the printer. For example, if the image channel is closed, the printer cannot send raw image data to the host.

Set Up Host PC

Verifier Integration interface allows you to transfer data between printer and host and control the printer from the host.

The host PC communicates with the printer using certain commands. To send the commands, user has to set up the communication channel and configure accordingly.

The communication channels are,

- Command Channel
- Feedback Channel
- Image Channel

Command Channel

The command channel is used to issue commands from host to printer. The commands can be sent based on the feedback result received from the printer to host or to get printing information.

There are four types of commands that can be sent through command channel, namely,

- Query Information Command
- Configuration Command
- Printing Control Command
- Update Command

The types of commands that can be sent through the command channel from the host PC to the printer are detailed here.

Query Information command	Configuration command	Printing control command	Update command
GetPrinterInfo	SetExecutionMode	CancelAllJobs	SendVerificationResult
GetPrinterStatus	SetVerifierMode	PausePrintJob	
GetLabelImage	SetCommandChannelPort	ResumePrintJob	
	SetFeedbackChannelPort	ReprintPrintJob	
	SetImageChannelPort	VoidLabel	
	ResetVerificationResult	RetractLabel	
		ReverifyLabel	

Configure Command Channel

Setup a TCP/IP connection between host PC and printer to open the command channel.

Command channel need to be connected before connecting Feedback channel. The Feedback channel will only accept connection from Command channel's Host (same IP), else, even if it shows connection OK, there won't be any output from this channel.

Feedback Channel

The feedback channel is used by the printer to send the print job status, verification result, or error result to host. These are sent by the printer automatically.

The responses from the feedback channel are:

- PrintJobStatus
- VerificationResult
- PrinterError

Configuring Feedback Channel

Setup a TCP/IP connection between the host PC and printer to open the feedback channel.

The command channel must be open before the feedback channel as both the channel share the same IP address.

Note: *Command channel need to be connected before connecting Feedback channel, Feedback channel will only accept connections from Command channel's Host (same IP).*

Image Channel

The image channel is used to send the label images from printer to host. The images can be BMP or raw image data. The image data is automatically sent from the printer without any request from the host.

The responses for the image channel are,

- ImageTransfer

Configuring Image Channel

Setup a TCP/IP connection between the host PC and printer to open the image channel.

The Image channel must be configured if the host PC expects to receive raw image data from the printer. If the raw image data is not needed, then the image channel need not be configured.

CHAPTER

3 COMMANDS AND RESPONSES

This chapter provides details about the Commands and Responses of all the functionality of the verifier integration interface.

Commands

Command Name	Purpose
GetPrinterInfo	Returns the printer information such as printer serial number, printer model etc.
CancelAllJobs	To instruct the printer to cancel all the pending print jobs.
GetLabelImage	Returns label image based on label ID.
GetPrinterStatus	Returns the printer status such as busy or available.
PausePrintJob	To instruct the printer to stop printing.
ReprintPrintJob	To instruct the printer to reprint the label specified by the host.
ResetVerificationResult	To reset the verification result database stored in printer.
ResumePrintJob	To instruct printer to resume from a printer pause mode.
RetractLabel	To instruct printer to retract the label specified by the host using Label ID.
PausePrintJob	To instruct the printer to stop printing.
ReprintPrintJob	To instruct the printer to reprint the label specified by the host.
ResetVerificationResult	To reset the verification result database stored in printer.

Response

The feedback channel and image channel returns response automatically without any request from host.

Command Name	Purpose
ImageTransfer	To send label image from the printer to host.
PrinterError	To send the printer error information to host.
PrintJobStatus	To send print job status from the printer to host.
VerificationResult	To send Barcode verification result from the printer to the host.

GetPrinterInfo

This command returns printer information such as printer serial number, printer model etc.

XML Request

```
<VII Action="GetPrinterInfo">
</VII>
```

XML Response

```
<VII Action="GetPrinterInfo" Status="00">
  <PrinterName>[printer name]</PrinterName>
  <ModelName>[model name]</ModelName>
  <SerialNumber>[serial number]</SerialNumber>
  <VerifierResolution>[resolution]</VerifierResolution>
</VII>
```

Parameter

Elements	Description
PrinterName	Name of the printer
ModeName	Model name of the printer
SerialNumber	Serial number of the printer
VerifierResolution	Verifier resolution of the printer. The resolution is in dpi unit, for example <VerifierResolution>600</VerifierResolution>

In case of error, the XML response will be,

```
<VII Action="GetPrinterInfo" Status=[error code]>
</VII>
```

For error codes, refer to Error Codes.

CancelAllJobs

This command instructs the printer to cancel all pending print jobs.

XML Request

```
<VII Action="CancelAllJobs">
</VII>
```

XML Response

```
<VII Action="CancelAllJobs" Status="00">
</VII>
```

In case of error, the XML response will be,

```
<VII Action="CancelAllJobs" Status=[error code]>
</VII>
```

For error codes, refer to Error Codes.

GetLabelImage

This command retrieves the label image based on the specified label ID.

XML Request

```
<VII Action="GetLabelImage">
<LabelID>[label ID]</LabelID>
</VII>
```

Elements	Description
LabelID	Unique identifier for the labels. LabelID can be retrieved from PrintJobStatus, and VerificationResult responses. The LabelID must be the LabelID reported back in the last response by feedback channel.

XML Response

In case of successful command execution, the specified label image will be sent to host via command channel.

```
<VII Action="GetLabelImage" Status="00" Type="BMP" ID="1"
Size="XYZ">
<Image>[Data Block]</Image>
</VII>
```

In case of error, the XML response will be,

```
<VII Action="GetLabelImage" Status=[error code]>
</VII>
```

For error codes, refer to Error Codes.

Parameters

Name	Description
Type	Label image in BMP format
ID	Label ID for each label
Size	Data size of actual image
Data Block	BMP data including BMP header

GetPrinterStatus

This command is to check current printer status. It will help to check if the printer is busy or available.

For all supported status, see "*Error Codes section under Fingerprint Command Reference Manual*".

XML Request

```
<VII Action="GetPrinterStatus">
</VII>
```

XML Response

```
<VII Action="GetPrinterStatus" Status="00">
  <PrinterStatus>[status message]</PrinterStatus>
</VII>
```

Parameter

Elements	Description
PrinterStatus	Printer status message. Status message does not support localization. The status messages can be, • Busy • Available • Out of media • Printhead lifted • Front arm lifted • Out of ribbon • Label not found • Test feed not done • Ribbon installed • Printhead too hot • Remove Label

In case of error, "GetPrinterStatus" XML response will be as listed below:

```
<VII Action="GetPrinterStatus" Status=[error code]>
</VII>
```

For error codes, refer to Error Codes.

ImageTransfer

This is the response to send label image from printer to host.

XML Format

The XML format of image data transferred via image channel.

```
<VII Action="ImageTransfer" Type="RAW" ID="1" Width="XYZ">
<Image>[Data Block]</Image>
</VII>
```

Parameter

Name	Description
Type	Label image in raw format
ID	Label ID for each label
Width	Width of image data block
Data Block	Raw image data block

PausePrintJob

This command is to instruct the printer to pause from printing.

XML Request

```
<VII Action="PausePrintJob">
</VII>
```

XML Response

```
<VII Action="PausePrintJob" Status="00">
</VII>
```

In case of error, 'PausePrintJob' XML response will be,

```
<VII Action="PausePrintJob" Status=[error code]>
</VII>
```

For error codes, refer to Error Codes.

PrinterError

This is the response to feedback any printer error, for example “Out of media”.

This is automatically sent from printer to host.

XML Response

```
<VII Action="PrinterError">
       <PrinterError>[printer error]</PrinterError>
</VII>
```

Printer error can be as Follows:

- Printhead lifted
- Front arm lifted
- Next label not found
- Out of media
- Out of ribbon
- Ribbon installed

Note: *For use case sequence diagram, refer to Printer Error.*

PrintJobStatus

This is a response to feedback print job status from printer to host. After each label is printed, the label printing status will be sent to host.

XML Response

```
<VII Action="PrintJobStatus">
       <LabelID>[label ID]</LabelID>
       <PrintJobStatus>[print job status]</PrintJobStatus>
</VII>
```

Print job status can be “Printed” or “Printing Failed”.

ReprintPrintJob

This command is to instruct printer to reprint the label specified by host. The label can be specified by the label ID and option.

XML Request

```
<VII Action="ReprintPrintJob">
       <LabelID>[label ID]</LabelID>
      <Option>[option]</Option>
</VII>
```

Print job option should be either “Single” or “All”.

If option is “Single”, only the label specified by label ID will be reprinted.

If option is “All”, then the labels between the label specified by label ID and the last printed label will be reprinted.

The reprint range will be from 3 to 11 which decrease when media length is changing from small to big. Refer to Label number and Label Length range on page 6.

For example, if the number of label is 3 and last label ID sent back to host is 5, the host only can send back the label ID for reprint from 3 to 5.

XML Response

```
<VII Action="ReprintPrintJob" Status="00">
</VII>
```

In case of error, 'ReprintPrintJob' XML response will be as listed below:

```
<VII Action="ReprintPrintJob" Status=[error code]>
</VII>
```

For error codes, refer to Error Codes.

ResetVerificationResult

This command is to reset verification result database stored in printer.

XML Request

```
<VII Action="ResetVerificationResult">
</VII>
```

XML Response

```
<VII Action="ResetVerificationResult" Status="00">
</VII>
```

In case of error, “ResetVerificationResult" XML response will be as listed below:

```
<VII Action="ResetVerificationResult" Status=[error code]>
</VII>
```

For error codes, refer to Error Codes.

ResumePrintJob

This command is to instruct printer to resume printing from a printer pause mode.

XML Request

```
<VII Action="ResumePrintJob">
</VII>
```

XML Response

```
<VII Action="ResumePrintJob" Status="00">
</VII>
```

In case of error, “ResumePrintJob” XML response will be as listed below:

```
<VII Action="ResumePrintJob" Status=[error code]>
</VII>
```

For error codes, refer to Error Codes.

RetractLabel

This command is to instruct the printer to retract the label specified by host using label ID.

XML Request

```
<VII Action="RetractLabel">
       <LabelID>[label ID]</LabelID>
</VII>
```

The range of how many labels can be retracted is between 3 and 11 which decrease when media length is changing from small to big. Refer to Label number and Label Length range on page 6.

For example, if the number of label is 3 and last label ID sent back to host is 5, the host only can send back the label ID for retract from 3 to 5.

XML Response

```
<VII Action="RetractLabel" Status="00">
</VII>
```

In case of error, “RetractLabel” XML response will be as listed below:

```
<VII Action="RetractLabel" Status=[error code]>
</VII>
```

For error codes, refer to Error Codes.

ReverifyLabel

This command is to instruct printer to re-verify a single label specified by the LabelID.

Note: *When a label has been retracted through the TPH, the original grade (first time verified) may not be accurate anymore. This command lets you regrade the label again.*

XML Request

```
<VII Action="ReverifyLabel">
       <LabelID>[label ID]</LabelID>
</VII>
```

The range of how many labels can be reverified is from 3 to 11 which decrease when media length is changing from small to big. Refer to Label number and Label Length range on page 6.

For example, if the number of label is 3 and last label ID sent back to host is 5, the host only can send back the label ID for reverify from 3 to 5.

XML Response

```
<VII Action="ReverifyLabel" Status="00">
</VII>
```

In case of error, “ReverifyLabel” XML response will be as shown below:

```
<VII Action="ReverifyLabel" Status=[error code]>
</VII>
```

This response reply the status of reverify action. The verification result will be same as normal printing verification sent from feedback channel.

For error codes, refer to Error Codes.

SendVerificationResult

This command is to send barcode/image verification result from the host to the printer.

In Synchronous Mode on page 5, printer will stop subsequent label printing and wait for verification result from host. In Asynchronous Mode on page 5, printer will stop print after all image buffer is used up.

Note: *The SendVerificationResult is for verification modes 1 and 2 only.*

XML Request

```
<VII Action="SendVerificationResult">
       <LabelID>[label ID]</LabelID>
       <VerificationResult>[verification result]</
VerificationResult>
</VII>
```

Verification result can be “Pass” or “Fail”.

XML Response

```
<VII Action="SendVerificationResult" Status="00">
</VII>
```

In case of error, “SendVerificationResult” XML response will be as listed below:

```
<VII Action="SendVerificationResult" Status=[error code]>
</VII>
```

For error codes, refer to Error Codes.

SetCommandChannelPort

This command is to set the port number of the command channel. The default value is “9301”. The range of the port numbers are 9301 - 65535.

XML Request

```
<VII Action="SetCommandChannelPort">
       <PortNumber>[port number]</PortNumber>
</VII>
```

XML Response

In case of successful command execution, no response will be sent, as port will be reset to new value.

In case of error, 'SetCommandChannelPort' XML response will be as listed below:

```
<VII Action="SetCommandChannelPort" Status=[error code]>
</VII>
```

Note: *User can reconnect to a new port from the range 9301-65535.*

For error codes, refer to Error Codes.

SetExecutionMode

For Execution Mode, Refer to Execution Mode on page 5.

XML Request

```
<VII Action="SetExecutionMode">
       <Option>[option]</Option>
</VII>
```

XML Response

```
<VII Action="SetExecutionMode" Status="00">
</VII>
```

In case of error, 'SetExecutionMode' XML response will be as listed below:

```
<VII Action="SetExecutionMode" Status=[error code]>
</VII>
```

For error codes, refer to Error Codes.

SetFeedbackChannelPort

This command is to set the port number of the feedback channel. The default value is "9302". The range of the port numbers are 9301 - 65535.

Note: *Command port need to be connected before connecting Feedback channel. The Feedback channel will only accept connection from Command channel's Host (same IP), else, even if it shows connection OK, there won't be any output from this channel.*

XML Request

```
<VII Action="SetFeedbackChannelPort">
       <PortNumber>[port number]</PortNumber>
</VII>
```

XML Response

In case of successful command execution, no response will be sent as port will be reset to new value.

In case of error, “SetFeedbackChannelPort” XML response will be as listed below:

```
<VII Action="SetFeedbackChannelPort" Status=[error code]>
</VII>
```

Note: *User can reconnect to a new port from the range 9301-65535.*

For error codes, refer to Error Codes.

SetImageChannelPort

This command is to set the port number of the image channel. The default value is "9303". The range of the port numbers are 9301 - 65535.

Note: *Command port need to be connected before connecting the image channel. The image channel will only accept connection from the same host (same IP) connected by the command channel, else, even if it shows connection OK, there won't be any output from this channel.*

XML Request

```
<VII Action="SetImageChannelPort">
       <PortNumber>[port number]</PortNumber>
</VII>
```

XML Response

In case of successful command execution, no response will be sent, as port will be reset to new value.

In case of error, 'SetImageChannelPort" XML response will be as listed below:

```
<VII Action="SetImageChannelPort" Status=[error code]>
</VII>
```

Note: *User can reconnect to a new port from the range 9301-65535.*

For error code, refer to Error Codes.

SetVerifierMode

This command is to set verifier mode.

XML Request

```
<VII Action="SetVerifierMode">
       <Option>[option]</Option>
</VII>
```

Verifier option can be below value:

1. Scan
2. Scan and grade
3. Scan, grade and control

Note: *The default value is "3".*

XML Response

In case of successful command execution, 'SetVerifierMode' XML response will be as listed below:

```
<VII Action="SetVerifierMode" Status="00">
</VII>
```

In case of error, “SetVerifierMode” XML response will be as shown below:

```
<VII Action="SetVerifierMode" Status=[error code]>
</VII>
```

For error codes, refer to Error Codes.

S

VerificationResult

This is the response to feedback barcode verification result from printer to host. If the barcode inspection is performed by printer verifier, the verification result will be sent to host after each label is inspected.

Note: *The verification mode applicable are mode 2 and 3.*

XML Response

```
<VII Action="VerificationResult">
       <LabelID>[label ID]</LabelID>
       <VerificationResult>[verification result]</
VerificationResult>
       <VerificationReport>[verification report]</
VerificationReport>
</VII>
```

Verification result can be "Pass" or "Fail".

The verification report will be XML format, and use UTF-8 as character encoding. For a sample of verification report, refer to Appendix A.

VoidLabel

This command is to instruct printer to mark up VOID on printed label.

XML Request

```
 <VII Action="VoidLabel">
       <LabelID>[label ID]</LabelID>
      <Option>[option]</Option>
</VII>
```

VoildLabel option should be either "Single" or "All".

If option is "Single", only the label specified by label ID will be VOID.

If option is "All", then the labels between the label specified by label ID and the last printed label will be VOID.

The range of how many labels can be VOID will be based on the Label number and Label Length range on page 6.

For example, if the number of label is 3 and last label ID sent back to host is 5, the host only can send back the label ID for voiding from 3 to 5.

XML Response

In case of successful command execution, 'VoidLabel' XML response will be as listed below:

```
<VII Action="VoidLabel" Status="00">
</VII>
```

In case of error, 'VoidLabel' XML response will be as listed below:

```
<VII Action="VoidLabel" Status=[error code]>
</VII>
```

For error codes, refer to Error Codes.

Error Codes

The following table details the possible causes or error and its description.

Error Codes	Command	Possible Cause	Description
00	NA	NA	Command status is OK
01	NA	Invalid XML	Wrong syntax for the respective XML commands used
02	NA	Label ID Not Found	The specified label ID cannot be found in printer
03	NA	Command Error	Error in command handling
04	NA	Unknown Error	Invalid command/other errors

CHAPTER

4 TROUBLESHOOTING

Problems and Possible Solutions

Problems	Possible Solution
The Ethernet or wireless network connection is not working correctly	Try these possible solutions: • Make sure your network cable is securely connected to your printer and is straight pin-to-pin cable, not a crossover cable. • Make sure your PC is correctly configured for and connected to your network. • Make sure your printer is correctly configured for your network.
Printing stops	May happen on VII mode 1/2 due to missing command from Host to printer. Drop the current connection and force the printer to discard its current state.
Printer does not print label in batch mode for batch printing	Try these possible solutions: • Lower the printing speed. • Reduce the network route (move the printer and host pc to the same network). • Use Ethernet connection instead of Wireless connection. • Reset Verification result by UI/Webpage/VII command.
Missing result/Image files	Try these possible solutions: • Lower the printing speed. • Reduce the network route (move the printer and host pc to the same network). • Use Ethernet connection instead of Wireless connection. • Change the Host application implementation dedicated process/thread for receiving data rather than using the same thread/process for receiving and data handling.
Printer is not voiding the full label	Try these possible solutions: • Set the correct void length in printer setting • Adjust the TPH pressure to avoid media slipping.

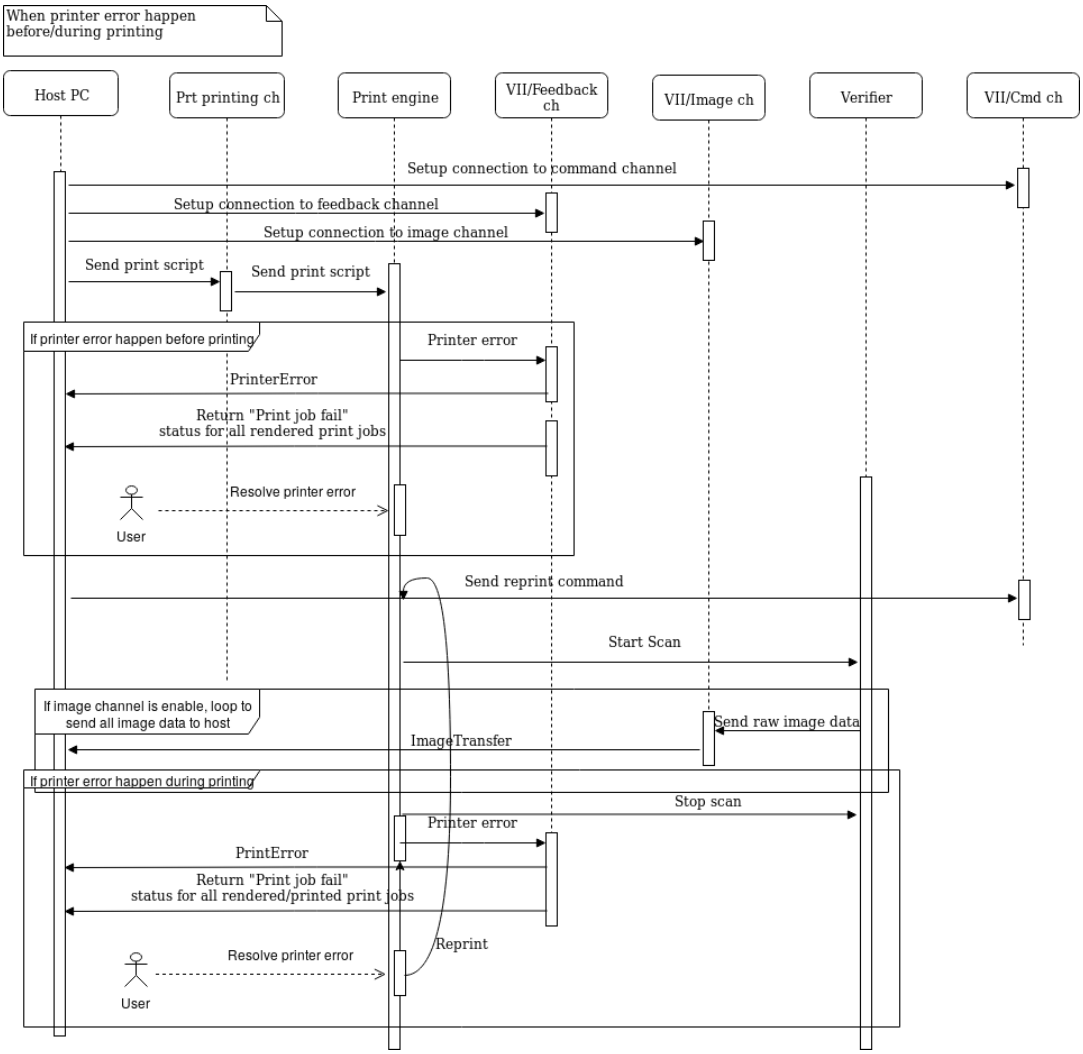
Problems	Possible Solution
Not able to connect to printer	Try these possible solutions: • Check network status, and make sure your host PC is able to ping the printer IP address. • Check your printer setting, and make sure your printer VII service is enabled. • Check your printer setting, and make sure the expected VII ports are used. • Printer might be connected to another Host PC, disconnect the current connection. • Check your Host PC port, and make sure VII ports are not being used by other processes. • Check your firewall setting, make sure VII ports are not blocked by firewall.
Image data is not received	• Try these possible solutions: • Check network status, and make sure your host PC is able to ping the printer IP address • Check your printer setting, and make sure your printer VII service is enabled. • Check your printer setting, and make sure the expected VII ports are used. • Printer might be connected to another Host PC, disconnect the current connection. • Check your Host PC port, and make sure VII ports are not being used by other processes. • Check your firewall setting, make sure VII ports are not blocked by firewall.
Report data is not received	Try these possible solutions: • Check network status, and make sure your host PC is able to ping the printer IP address. • Check your printer setting, and make sure your printer VII service is enabled. • Check your printer setting, and make sure the expected VII ports are used. • Printer might be connected to another Host PC, disconnect the current connection. • Check your Host PC port, and make sure VII ports are not being used by other processes. • Check your firewall setting, make sure VII ports are not blocked by firewall.
Image data is not received in real time	Try these possible solutions: • Reduce print speed • Reduce traffic congestion on network

CHAPTER

5 USE CASE SEQUENCE DIAGRAM

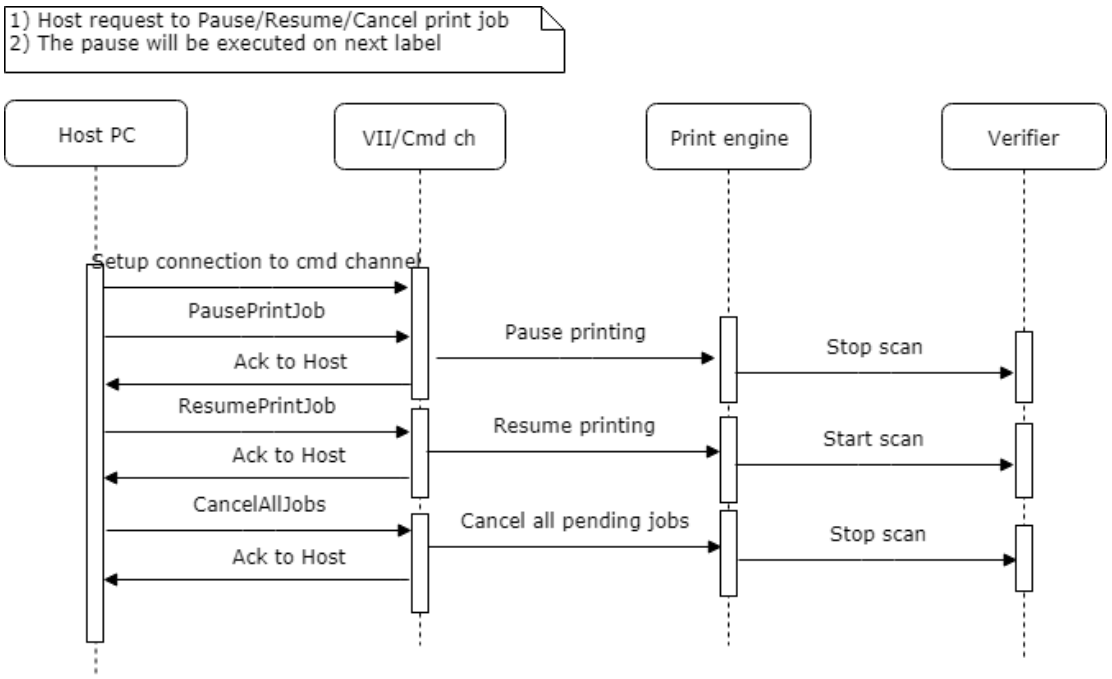
Printer Error

The use case show when printer error happen before/during printing.



Print Job – Pause, Resume, Cancel

This use case displays the host request to Pause/Print/Cancel print job.



Note: *The pause will be executed on the next label.*

APPENDIX

A VERIFICATION REPORT

Sample Verification Report

```
<Label ID="4">
  <PrintJobID>4</PrintJobID>
  <VerificationType>ISO 15415/15416</VerificationType>
  <PassingGrade>1.5 (C)</PassingGrade>
  <HardwareAperture>4.8 mils</HardwareAperture>
  <Date>20190507</Date>
  <Time>125652</Time>
  <CalibrationDate>20190221</CalibrationDate>
  <LabelGrade>3.3 (B)</LabelGrade>
  <LabelStatus>Pass</LabelStatus>
  <FailureReason></FailureReason>
  <Image>PX940V_18333B24D8_4_20190507_125652.jpg</Image>
  <Barcodes>3</Barcodes>
  <Barcode ID="1">
    <Symbology>CODE39</Symbology>
    <Size>19.7 mils</Size>
    <Data>1234</Data>
    <EncodedData>&lt;Start&gt;1234&lt;Stop&gt;</EncodedData>
    <Grade>3.3 (B)/10/660</Grade>
    <Status>Pass</Status>
    <ScanLineDataCheck>Pass</ScanLineDataCheck>
    <XPos>213</XPos>
    <YPos>396</YPos>
    <Width>1530 pixels</Width>
    <Height>682 pixels</Height>
    <OverallParameter>
      <RMax>80.5%</RMax>
      <RMin Grade="4.0">18.2%</RMin>
      <ECMin Grade="4.0">47.2%</ECMin>
      <SymbolContrast Grade="3.4">62.3%</SymbolContrast>
      <Modulation Grade="4.0">75.9%</Modulation>
      <Defects Grade="4.0">11.5%</Defects>
      <Decodability Grade="4.0">88.9%</Decodability>
      <Decode Grade="4.0"/>
      <QuietZone Grade="4.0"/>
      <GlobalThreshold>49.4%</GlobalThreshold>
      <PCS>77.3%</PCS>
      <BarGain>-5.1%</BarGain>
    </OverallParameter>
    <LineProfileParameter>
```

```
<Line ID="1">
  <Grade>3.3</Grade>
  <RMax>80.7%</RMax>
  <RMin Grade="4.0">19.9%</RMin>
  <ECMin Grade="4.0">44.6%</ECMin>
  <SymbolContrast Grade="3.3">60.8%</SymbolContrast>
  <Modulation Grade="4.0">73.4%</Modulation>
  <Defects Grade="3.4">18.1%</Defects>
  <Decodability Grade="4.0">90.5%</Decodability>
  <Decode Grade="4.0"/>
  <QuietZone Grade="4.0"/>
  <GlobalThreshold>50.3%</GlobalThreshold>
  <PCS>75.3%</PCS>
  <BarGain>-5.4%</BarGain>
</Line>
<Line ID="2">
  <Grade>3.4</Grade>
  <RMax>80.7%</RMax>
  <RMin Grade="4.0">19.6%</RMin>
  <ECMin Grade="4.0">46.6%</ECMin>
  <SymbolContrast Grade="3.4">61.1%</SymbolContrast>
  <Modulation Grade="4.0">76.3%</Modulation>
  <Defects Grade="4.0">4.7%</Defects>
  <Decodability Grade="4.0">86.8%</Decodability>
  <Decode Grade="4.0"/>
  <QuietZone Grade="4.0"/>
  <GlobalThreshold>50.1%</GlobalThreshold>
  <PCS>75.7%</PCS>
  <BarGain>-5.9%</BarGain>
</Line>
<Line ID="3">
  <Grade>3.4</Grade>
  <RMax>80.7%</RMax>
  <RMin Grade="4.0">19.2%</RMin>
  <ECMin Grade="4.0">47.0%</ECMin>
  <SymbolContrast Grade="3.4">61.5%</SymbolContrast>
  <Modulation Grade="4.0">76.5%</Modulation>
  <Defects Grade="4.0">11.3%</Defects>
  <Decodability Grade="4.0">90.1%</Decodability>
  <Decode Grade="4.0"/>
  <QuietZone Grade="4.0"/>
  <GlobalThreshold>49.9%</GlobalThreshold>
  <PCS>76.2%</PCS>
  <BarGain>-5.4%</BarGain>
</Line>
<Line ID="4">
  <Grade>3.2</Grade>
  <RMax>80.3%</RMax>
  <RMin Grade="4.0">19.6%</RMin>
  <ECMin Grade="4.0">49.0%</ECMin>
  <SymbolContrast Grade="3.3">60.7%</SymbolContrast>
  <Modulation Grade="4.0">80.8%</Modulation>
  <Defects Grade="3.2">19.3%</Defects>
  <Decodability Grade="4.0">91.4%</Decodability>
  <Decode Grade="4.0"/>
  <QuietZone Grade="4.0"/>
  <GlobalThreshold>49.9%</GlobalThreshold>
  <PCS>75.5%</PCS>
```

```
        <BarGain>-5.2%</BarGain>
      </Line>
      <Line ID="5">
        <Grade>3.5</Grade>
        <RMax>80.7%</RMax>
        <RMin Grade="4.0">17.6%</RMin>
        <ECMin Grade="4.0">47.4%</ECMin>
        <SymbolContrast Grade="3.5">63.1%</SymbolContrast>
        <Modulation Grade="4.0">75.1%</Modulation>
        <Defects Grade="4.0">7.3%</Defects>
        <Decodability Grade="4.0">89.8%</Decodability>
        <Decode Grade="4.0"/>
        <QuietZone Grade="4.0"/>
        <GlobalThreshold>49.2%</GlobalThreshold>
        <PCS>78.1%</PCS>
        <BarGain>-4.9%</BarGain>
      </Line>
    </LineProfileParameter>
  </Barcode>
</Label>
```

Note: *For more information about the contents in the sample code, refer to PX940 User Guide.*

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