

**Oracle® Hospitality Cruise Shipboard Property
Management System**

User Guide - Card Printing with Axxess Printer
Release 7.30.868

August 2015

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Preface

AX500 Smart Printer is able to print, delete, encodes and reads Tickets of ISO 15693 and ISO 14443 formats in one operation. Customized designs, logos and texts are printed in direct thermal process for a permanent visibility. At the same time the tickets are electronically coded in the printer.

Audience

This document is intended for application specialist and users of Oracle Hospitality Cruise Shipboard Property Management System.

Customer Support

To contact Oracle Customer Support, access My Oracle Support at the following URL: <https://support.oracle.com/>

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

Revision History

Date	Description of Change
August 19, 2015	<ul style="list-style-type: none">• Initial publication.

1. Prerequisite, Supported Systems, and Compatibility

This section describes the minimum requirement to operate the Axess AX500 Smart Printer with SPMS.

Prerequisite

- Mifare Classis RFID card – standard size.
- AxessAG folder containing ACPX.NET.exe and ACPX.NET.tlb.

Supported Systems

- Windows 32-bit System, Windows 64-bit System

Compatibility

- SPMS version 7.30.868 or later. For customer operating on version below 7.30.868, database upgrade to the recommended or latest version is essential.

2. SPMS Installation

This section describes the installation process required to operate AX500 Smart printer with SPMS.

Installation Instructions

- Download the latest program and system files from FTP release folder
/Fidelio/Fidelio Cruise
SPMS/Release730/7_3_xxx/7_3_xxx_OR/Programs.
- Execute FC Database Installer.exe to upgrade programs to the latest version.

Note: The DB Installer will upload ACPX.NET.exe to XAPP table in above process.

- Run FC Launch Panel.exe, then click FCUpdater for system to download and create a folder in the root directory C:\AxessAG.
- Below are the files that resides in the C:\AxessAG folder:
 - ACPX.NET.exe
 - ACPX.NET.tlb

3. Supported Card Type Function

This section describes the User Defined Function type of supported card type within SPMS.

3.1. Create User Defined Function by Card Type

By default, the user function for Guest, Crew and Visitor card type is inserted by DB Installer. For other card type, it is possible to create a customized user function as illustrated in the next topic.

Note: The Staff card uses the same user defined function as Crew Card (FNCA_X_PRINTDATA_C).

Below are the User Defined Function name for each supported card type within SPMS module.

Table 3-1 – User Defined Function names

Card Type	Function Name
Guest	FNCA _X _PRINTDATA_P
Crew	FNCA _X _PRINTDATA_C
Visitor	FNCA _X _PRINTDATA_V
Group	FNCA _X _PRINTDATA_G
System Account	FNCA _X _PRINTDATA_A
Gift Card	FNCA _X _PRINTDATA_Z

4. Card Type Layout

This section describes the steps in designing the layout for the supported User Defined Function by card type, using command supported by Axess AX500 Smart Printer.

Printer Command

Below are the printer commands and sample illustration of the printing orientation.

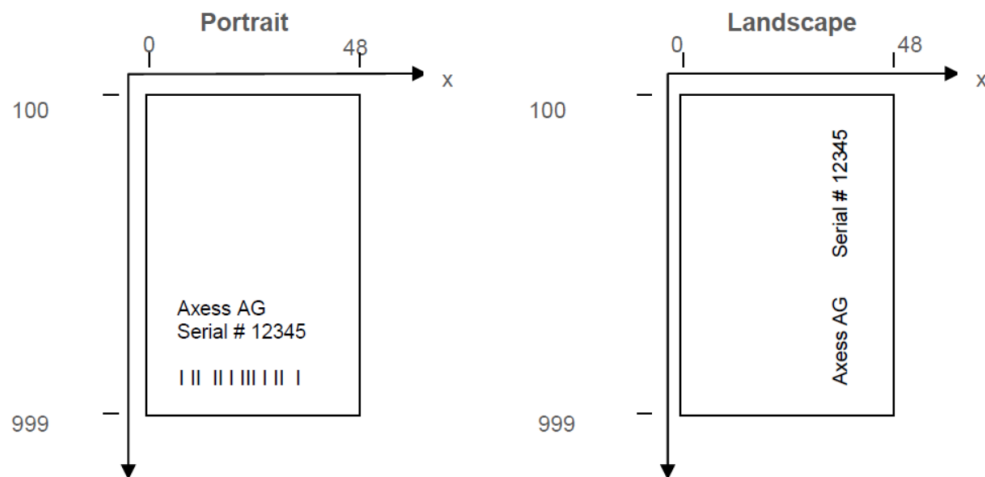


Figure 4-1 - RFID Card coordinate

Table 4-1 - Printer commands

Command	Description
;nPEO	Density; -89 to +199. Typical density are: 0-30 for paper cards 20-40 for plastic cards with thermal rewrite foil. Note: nPEO setting does not improve picture quality.
;nYMin	Minimum axis of Y is 100. Refer Figure 4-1 - RFID Card coordinate
;nYMax	Maximum axis of X is 999 Refer Figure 4-1 - RFID Card coordinate
%DIR:	Printing direction P - Potrait L - Landscape); every line must start with either %DIR:P or %DIR:L
%PX:	Horizontal printing position from left to right. The range for X axis is 0 to 48.
%PY:	Vertical printing position from top to bottom. The range for Y axis is 100 to 999
%TXL:	Print text left bound
%TXR:	Print text right bound

Command	Description
%FNT:	Font size: 1N – small font normal 2N – medium font normal 3N – large font normal 1B – small font double horizontal size 2B – medium font double horizontal size 3B – large font double horizontal size 1H – small font double vertical size 2H – medium font double vertical size 3H – large font double vertical size 1L – small font double size (h/v) 2L – medium font double size (h/v) 3L – large font double size (h/v)
%FNT:10Arial	Supported Windows font, for example: Arial, Calibri, Rockwell, Tahoma, Times New Roman
%BC_PARAM:	Barcode Style 0 – normal 1 – double width (only with 12 digit barcode)
%BC2OF5:	Barcode type is 2 of 5 interleaved, 24 digits maximum
%BC2OF5_CHK:	With this variable, after printing a barcode, the printer will perform an automatic self-read. If the print process failed, the error 0x40000102 -"(BC-?) Ticket Error" returns as a result.
%PIX:	Print the persistent and indexed photo <ul style="list-style-type: none"> • 1 to 256 for pre-loaded hardcoded image • 257 for account-specific using SEC_IMAGE from database. • 258 to 512 for future use on account-specific images • 513 and above for future use
%IMG_WI:	Fidelio's customized image width; 0 to 48; (width in ticket x-units) = (width in pixels) / 5
%IMG_HI:	Fidelio's customized image height; 0 to 899; (height in ticket y-units) = (height in pixels) * 2
%IMG_C_MATRIX	Fidelio's customized image color matrix; 5 x 5 matrix; applicable only for %PIX 257 to 512

Sample design

Below is a sample script to design a print layout in Landscape.

1. To begin user function creation, start the script with:-

```
CREATE OR REPLACE FUNCTION FNCAX_PRINTDATA_P (pnRES_ACC IN
NUMBER, psShipName IN VARCHAR2, psCompanyName IN VARCHAR2)
RETURN VARCHAR2 AS
```

2. Then declare the variable to store the design of the print task with:-

```

sPrtData VARCHAR2(4000);
BEGIN

select ';nPEO=0;nYMin=100;nYMax=999'
      || ';szPrintData=['

```

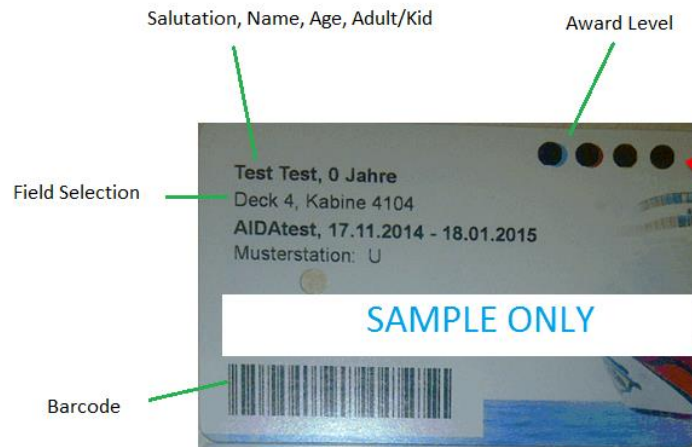


Figure 4-2 - Sample card layout

4.1. Field selection command

This command is to select fields to be printed on the card, for example Salutation, Title, Name, Age and PPD_TAG.

1. Specify the printing orientation and the fonts to use.
2. Specify the start position of the printing and **X** (%PX) & **Y** (%PY) axis.
3. For data to display as Left Bound, include command %TXL: in your script.
4. Add the require fields into the selection. You may select any available field in the database to print on the card.

Below is a sample function script to print Name, Title, Age, and PPD_TAG in a single line.

```

      || ' %DIR:L %FNT:9Arial Black                                %PX:10
%PY:900 %TXL:''''|| CASE
      WHEN UXP_H_AGE >=18 then
                                TRIM(UXP_A_SALUT) || ' '|| UXP_A_TITEL
|| ' ' || TRIM(UXP_A_FSTN) || ' ' ||
                                TRIM(UXP_A_NAME) || ' '
||DECODE(rtrim(RES.RES_PPD_TAG), 'MIT', 'MITARBEITER')
      WHEN UXP_H_AGE <18 then
TRIM(UXP_A_TITEL) || ' ' || TRIM(UXP_A_FSTN) || ' ' ||
TRIM(UXP_A_NAME) || ', ' || UXP_H_AGE || ' Jahre '
||DECODE(rtrim(RES.RES_PPD_TAG), 'MIT', 'MITARBEITER')
      END || ''''

```

4.2. Award level command

This section describes the command use to design a card which uses field RES_AWARD_LEVEL as Award Level. Following setting is essential to enable the black color dots to be printed in the right position.

Note: This setting is dependent on the position of the X and Y axis specified in the script.

```
|| DECODE (RES.RES_AWARD_LEVEL,'Blau',',', '%DIR:L
%FNT:90Times New Roman      %PX:11 %PY:450 %TXL:'.')
|| DECODE (RES.RES_AWARD_LEVEL,'Rot',',', '%DIR:L
%FNT:90Times New Roman      %PX:11 %PY:385 %TXL:'.')
|| DECODE (RES.RES_AWARD_LEVEL,'Gelb',',', '%DIR:L
%FNT:90Times New Roman      %PX:11 %PY:320 %TXL:'.')
|| DECODE (RES.RES_AWARD_LEVEL,'Grün',',', '%DIR:L
%FNT:90Times New Roman      %PX:11 %PY:255 %TXL:'.')
```

4.3. Barcode design command

This command is to print a barcode on the RFID card.

- To add a barcode in your card, use command %BC2OF5 for barcode design using Interleave 2 of 5 barcode type, then specify the width of the barcode using %BC_PARAM command as shown below.

```
|| ' %DIR:L                                %PX:38 %PY:920
%BC_PARAM:0 %BC2OF5:' || TRIM(RES_BOARDCC) || '']'
```

4.4. Insert Image/Photo command

This command is use to insert an image or photo to the layout, which is '%PIX: '

- a. To use the SEC_IMAGE of the selected account, use %PIX:257 command, then specify the Image width using %IMG_WI: command and height using %IMG_HI: command

For example:

```
|| ' %DIR:P
%PX:0 %PY:175 %PIX:257 %IMG_WI:24 %IMG_HI:325
%IMG_C_MATRIX:0.5,0.5,0.5,0,0><0.5,0.5,0.5,0,0><0.5,0.5,0.5,0,0
><0,0,0,1,0><0,0,0,0,1'
```

- b. To use a pre-loaded image, the printer *must* be preloaded with an image using a VB script.

For example: To load the image for %PIX:10 where the image file is located at c:\bw_010.bmp

```
ON ERROR RESUME NEXT
SET acpx = CREATEOBJECT("ACPX.CPXsrv2")
pVarResult = ""
nIdx = 10
varPic = "C:\bw_010.bmp"
iRes = acpx.SetPicture(nIdx, varPic, pVarResult)
MSGBOX pVarResult
SET acpx = NOTHING
```

1. Place the image file at root of C:\ as specified in the script.
2. Specify the image file in 'varPic = "C:\bw_010.bmp"' string.
3. Declare the nIdx=10, where number 10 is the same as %PIX: command, for example %PIX:10.
4. Save the script file with .vbs extension.
5. Switch on the printer and connect it to the PC where the image file is.
6. Double click the newly created file with .vbs extension.
7. If the image is successfully loaded, it will return below message:

```
";nError=0x00000000;szError=OK!"
```

Below is an example of the command to declare a pre-loaded image in the User Defined Function.

```
|| ' %DIR:P %PX:0 %PY:175
%PIX:10 %IMG_WI:24 %IMG_HI:325
%IMG_C_MATRIX:0.5,0.5,0.5,0,0><0.5,0.5,0.5,0,0><0.5,0.5,0.5,0,0
><0,0,0,1,0><0,0,0,0,1'
```

4.5. End of Function command

This command is use to close the function and write the design into the sPrtData.

```
INTO sPrtData
    FROM UXP,RES, CAB, TYP_DEK dek WHERE UXP_A_ID=RES_ACC
and CAB_ID=RES_CAB and cab_deck=dek.typ_art(+)
    and UXP_A_ID = pnRES_ACC;

    RETURN sPrtData;
EXCEPTION
WHEN OTHERS THEN
    RETURN null;
END;
/
```

- Once the layout design is complete, save these command as function according to the card type, for example: FNCA_X_PRINTDATA_P.sql or FNCA_X_PRINTDATA_C.sql

Sample script

Below is a sample of a completed script for *Guest* card type.

```

CREATE OR REPLACE FUNCTION FNCAX_PRINTDATA_P(pnRES_ACC IN
NUMBER, psShipName IN VARCHAR2, psCompanyName IN VARCHAR2)
RETURN VARCHAR2 AS

AXP
BEGIN

select ';nPEO=199;nYMin=100;nYMax=999'
      || ';szPrintData=['
      || DECODE(RES.RES_AWARD_LEVEL,'Blau',',', '%DIR:L
%FNT:90Times New Roman          %PX:11 %PY:470 %TXL:'.')
      || DECODE(RES.RES_AWARD_LEVEL,'Rot',',', '%DIR:L
%FNT:90Times New Roman          %PX:11 %PY:405 %TXL:'.')
      || DECODE(RES.RES_AWARD_LEVEL,'Gelb',',', '%DIR:L
%FNT:90Times New Roman          %PX:11 %PY:340 %TXL:'.')
      || DECODE(RES.RES_AWARD_LEVEL,'Grün',',', '%DIR:L
%FNT:90Times New Roman          %PX:11 %PY:275 %TXL:'.')
      || ' %DIR:L %FNT:8Arial Black          %PX:10
%PY:900 %TXL:''' || CASE
                                WHEN UXP_H_AGE >=18 then
TRIM(UXP_A_SALUT) || ' ' || UXP_A_TITEL || ' ' ||
TRIM(UXP_A_FSTN) || ' ' || TRIM(UXP_A_NAME) || ' '
||DECODE(rtrim(RES.RES_PPD_TAG), 'MIT', 'MITARBEITER')
                                WHEN UXP_H_AGE <18 then
trim(UXP_A_TITEL) || ' ' || TRIM(UXP_A_FSTN) || ' ' ||
TRIM(UXP_A_NAME) || ', ' || UXP_H_AGE || ' Jahre '
||DECODE(rtrim(RES.RES_PPD_TAG), 'MIT', 'MITARBEITER')
                                END || '''
      || ' %DIR:L %FNT:8Arial          %PX:14 %PY:900
%TXL:''' || TRIM(NVL(dek.typ_comment, '-')) || ', Kabine ' ||
TRIM(RES_CAB) || '''
      || ' %DIR:L %FNT:8Arial Black          %PX:19 %PY:900
%TXL:''' || NVL(psShipName, 'Demo Ship') || ', ' ||
NVL(TO_CHAR(RES_EMB_E, 'DD.MM.YYYY'), '-') || ' - ' ||
NVL(TO_CHAR(RES_DIS_E, 'DD.MM.YYYY'), '-') || '''
      || ' %DIR:L %FNT:8Arial          %PX:23 %PY:900
%TXL:'''Musterstation ' || TRIM(NVL(CAB_STATION, '-')) || '''
      || ' %DIR:L %FNT:7Arial          %PX:31 %PY:900
%TXL:'''Tel. 00870 765 106 534'''
      || ' %DIR:L %FNT:7Arial          %PX:34 %PY:900
%TXL:'''Tel. 00870 765 106 537'''
      || ' %DIR:L %FNT:8Arial          %PX:34 %PY:435
%TXL:''' || DECODE(TRIM(UXP.UXP_A_ROYALITY), '*', 'HCP', ' ') ||
      ''''

```

```
        || ' %DIR:L                                %PX:38 %PY:920
%BC_PARAM:0 %BC2OF5:' || TRIM(RES_BOARDCC) || ''' ]' INTO
sPrtData
        FROM UXP,RES, CAB, TYP_DEK dek WHERE UXP_A_ID=RES_ACC
and CAB_ID=RES_CAB and cab_deck=dek.typ_art(+)
        and UXP_A_ID = pnRES_ACC;

        RETURN sPrtData;
EXCEPTION
WHEN OTHERS THEN
        RETURN null;
END;
/
```

5. Inserting Script & User Defined Function

This section describes the script to insert a card type into a VIEW (TYP_AXP) in SPMS database for use with Axxess Printer since there is no UI available for adding a card type function.

Inserting Card Type into SPMS Database

By default, the Guest, Crew and Visitor function is inserted into the SPMS Database when user run the DB Installer. Below are the sample scripts to insert a card type into a VIEW for Group, System Account and Gift card type.

Group

```
INSERT INTO TYP
(TYP_ENTITY, TYP_ART, TYP_COMMENT, TYP_LONG_COMMENT, TYP_ENABLED)
VALUES ('AXP', 'G', 'FNCAAX_PRINTDATA_G', 'GROUP', 1);
```

System Account

```
INSERT INTO TYP
(TYP_ENTITY, TYP_ART, TYP_COMMENT, TYP_LONG_COMMENT, TYP_ENABLED)
VALUES ('AXP', 'A', 'FNCAAX_PRINTDATA_A', 'SYSTEM ACCOUNT', 1);
```

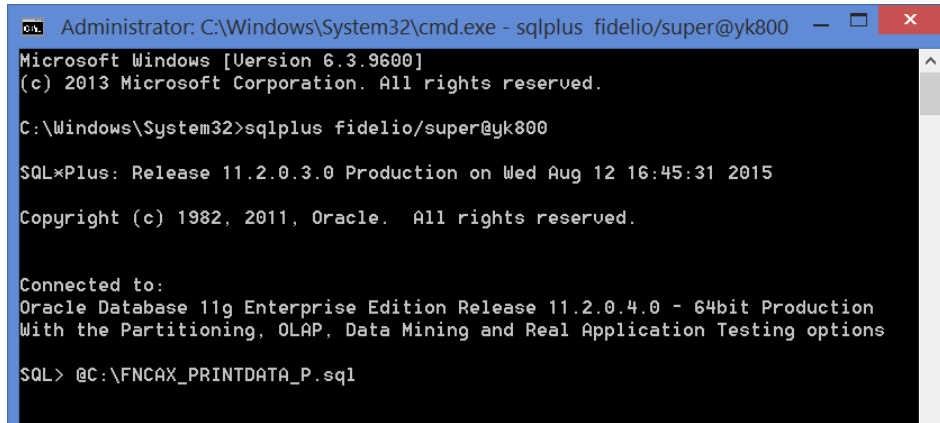
Gift Card

```
INSERT INTO TYP
(TYP_ENTITY, TYP_ART, TYP_COMMENT, TYP_LONG_COMMENT, TYP_ENABLED)
VALUES ('AXP', 'Z', 'FNCAAX_PRINTDATA_Z', 'GIFT CARD', 1);
```

Insert Card Type Function

Below steps describes the process to insert a card type into SPMS Database using SQLPLUS command.

1. Login as **Administrator**, then launch the command prompt.
2. At the command prompt, type `sqlplus Fidelio/xxxxx@fidelio`, where xxxxx refers to your schema password.
3. At the SQL prompt, type `"@c:\FNCAAX_PRINTDATA_P.sql"` where the User Defined Function file is located.
4. Press **Enter** to execute the insertion of the function into the database.



```
Administrator: C:\Windows\System32\cmd.exe - sqlplus fidelio/super@yk800
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Windows\System32>sqlplus fidelio/super@yk800

SQL*Plus: Release 11.2.0.3.0 Production on Wed Aug 12 16:45:31 2015

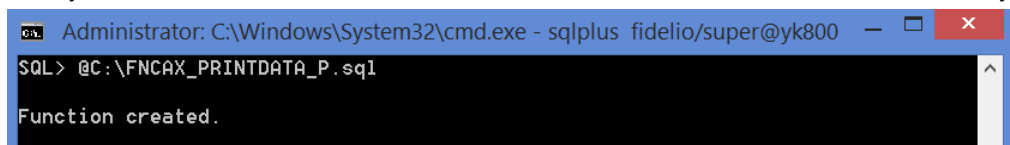
Copyright (c) 1982, 2011, Oracle. All rights reserved.

Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.4.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> @C:\FNCA\PRINTDATA_P.sql
```

Figure 5-1 - Inserting a User Defined Function to database

5. System return a command '*Function created*' when function is created successfully.



```
Administrator: C:\Windows\System32\cmd.exe - sqlplus fidelio/super@yk800
SQL> @C:\FNCA\PRINTDATA_P.sql

Function created.
```

Figure 5-2 – User Defined Function created successfully.

6. Printer Setup

This section describes the printer setup and printing of card in SPMS.

Printer Setup

1. Connect the printer to the PC.
2. Launch Management module, then go to *Options, Hardware* tab.
3. In *Report Printers* section, select **Cards**.
4. In *Card Printer* section, select **Axess AX500**.
5. Enter the **printer port** under *Card Reader/Encoder #1*.
6. Click **Apply** to save the changes, then **OK** to exit hardware settings.

Note: Once the printer is set up in Management module, the **ACPX.NET.exe** will execute in the background when it detects a print job.

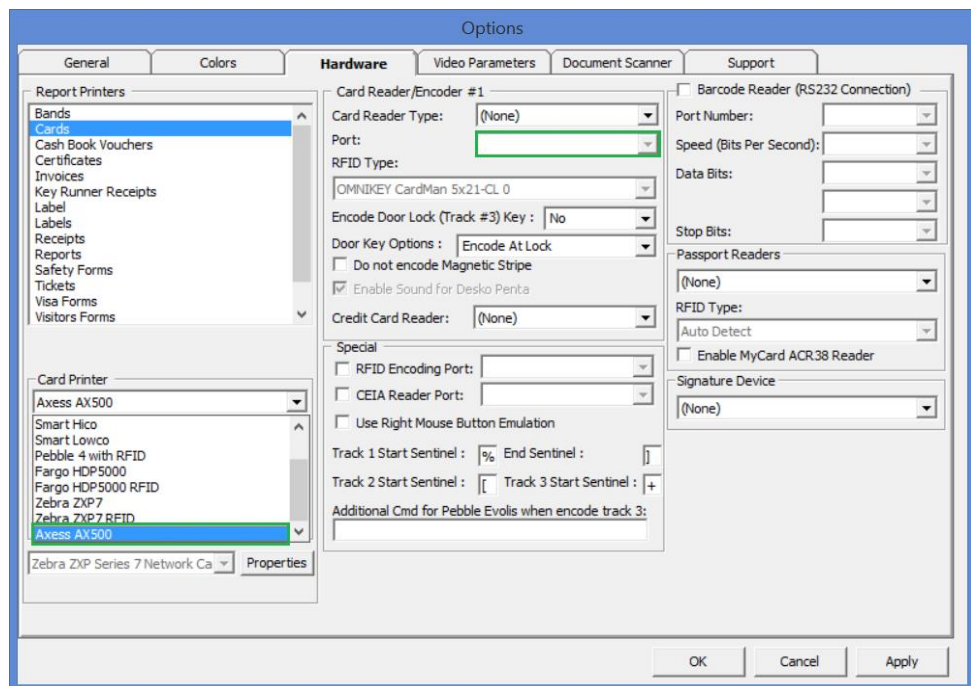


Figure 6-1 - Hardware Configuration in Management module

7. In Guest Handling screen, select the guest and click **Print Board Card** to print the guest card.