Printing in Conveyorware

Daily Use, Configured Printer(s)

New Display Session

Work with Multiple Sessions

Special Printers:

Warehouse Receiving/Shipping (Thermal Transfer Label Printer)

UPS Shipping (Thermal Label Printer)

Point of Sale Receipt Printer/Cash Drawer

Delete a Printer

Modify/Edit a Printer

Appendix A: Printer Compatibility

Appendix B: Workstations Customizing Objects

Printing in Conveyorware:

Conveyorware is an **internet-accessed** program. Work activity takes place in the **system's** computer. Working with Conveyorware involves **two kinds** of communication **from** the system's central computer: **screen display** and **printer output**.

Screen Display:

Use Conveyorware with any device with a web **browser** (a pc, smart phone, or other device). The browser allows you to access the system's **screen displays** with a **GUI** [Graphical User Interface]. Use Conveyorware's website login, the **WebAccess** display, with the full features of Conveyorware in (GUI) Click-to-Navigate Menus.

The IBMi Access **Client Solutions** (ACS) application also allows a **non-browser** login to a traditional green screen (non-GUI) display.

Printer Output:

Conveyorware Users determine **how, where** and **when** each system-generated record prints. There are **three choices** for the report and document files generated by the system.

1. Use **Email** as a print option. The file is sent as an attachment to a User-specified email address. Open the file and then send it your local printer (and/or save it as desired).

2. **Outqueue storage** (as Spool Files): **Store** the file within the Conveyorware system in an **outqueue**. From the storage queue, reports/records can be displayed on the screen, or can be sent to a system-configured printer.

3. **Directly Print** with a system-configured printer. This choice requires installation of IBM-emulation software on your PC (IBMi ACS). After configuring a printer session, use an active login for your local printer. This process creates direct communication from the Conveyorware system to your printer, with immediate printing.

Each of these choices has its **advantages** and **disadvantages**. Any can be selected by an individual User at any time.

999. Work with Printing

Each **User ID** controls document and report printing through <u>Main Menu</u> Option 999 <u>Work with Printing</u>.

> ✳ **To Select <u>Work with Printing</u>:**
> From the <u>Main Menu</u>, or from any menu screen,
>
> ➔ Click on **999 <u>Work with Printing</u>**, or
> ➔ Key command **"999," [Enter].**

The <u>Work with Printing</u> window appears. This screen lists the **default** printing choices for a **new environment:**
- **Email** and
- **Default Outqueue**.

Both of these choices are for "**indirect**" printing. Any **local printers** configured to the system will <u>also</u> appear in this selection list. The printer configuration process is described in detail following the sections for Email and Outqueue.

For each **new Subscriber**, the Environment's **Outqueue** is the **default printer** choice. For each **new User ID**, documents also default to this OutQ <u>until</u> the User specifies a different choice.

999. <u>Work with Printing</u> is present in **both** the <u>Main Menu</u> and in the <u>Admin Menu</u>. Use (only) the <u>Admin</u> Login version to **add** configured **printers** to the system, and to select the **default** printing choice for automated **day-end** reports.

SELPRT3		Work with Printing		3/18/16
				10:55:15
Position To Printer:				A020
Your Current Printer.:		0000000020		
Current Label Printer:				
Select Option, Press Enter:				
Op	Printer	Description		Status
▼	EMAIL	Email Printouts		ACTIVE
▼	0000000020	Default Outq		NOT ACTIVE

Help   Exit   Add_Printer   Label_Printer   Cancel

Work_UserQ   Continue

999. <u>Work with Printing</u> screen

Layout, <u>Printer Selection</u> screen:

Header:

     Position to Printer: Any letter/number entry here positions a long list of printers.

     Your Current Printer: Default is the Default OutQ.

     Current Label Printer When configured label printers exist, a User-selected label printer can display here.

Columns:

     Op: **Options** field. Choices for the <u>Main</u> Menu's <u>Work with Printers</u> are
             1=Select (as Printer) and
             5=Work with (Queue) (the list of files waiting to print).

     Printer: A printer's **Name** in this system, aka "Workstation ID"
           (up to 10 characters).

     Description: The Maker, Model, and/or Location, assigned when the printer is added.

     Status: Normally, only **Active** or **Not Active**. "Active" indicates an **active logon session** for a configured printer. However:
- **Email** <u>always</u> has <u>Active</u> status, and
- Default **OutQ** <u>always</u> has <u>Not Active</u> status (even though it <u>is</u> always selectable).

F-Keys / [Buttons]:

     [Help] (F1): Brings up a "Help" window with information about the cursor's field. From any [Help] (F1) window, press [Extended Help] (F2) for detailed information about the entire screen.

     [Exit] (F3)**:** Cancels the current screen and returns to the menu.

     [Label_Printer] (F8): Brings up the <u>Label Printer Selection</u> screen, with any configured label printers or POS cash drawer/receipt printers.

     [Cancel] (F12)**:** Cancels the current screen and returns to the previous screen.

     [Work_UserQ](F24): A **<u>subset</u>** of the Default OutQ, this list displays only the files related to the **User's ID**.

The <u>Admin Menu</u> login's 999 <u>Work with Printers</u> is identical to this screen, with the added abilities to **add** and to **delete** configured printers.

Note that **Label Printing** is a specialized function in Conveyorware. <u>Warehouse</u> labels (receiving/ shipping, UPC, and <u>integrated</u> UPS shipping) are <u>never</u> sent to a configured paper printer or as email attachments.
<u>Parcel</u> Labels **from** or **through** <u>other</u> services (USPS/Endicia, FedEx, etc) are not affected.

<u>Automated</u> documents and reports will continue to accumulate in the Default Outqueue until each report/document is designated/directed to a configured printer, to or to a specified email address.
Change the printing choice for these functions in <u>Admin Menu</u> 901 <u>Work with Report Distribution</u>.
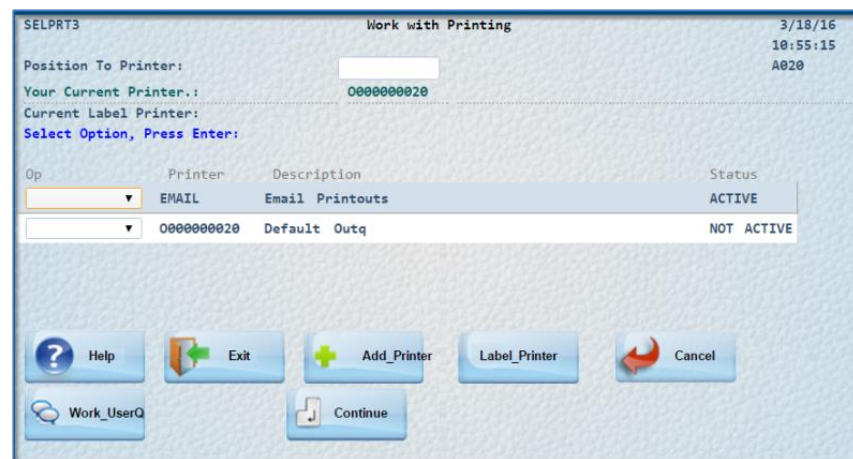
Email

Emailing Conveyorware's output allows **indirect** printing. When selecting Email as their 999 <u>Work with Printing</u> choice, each **User specifies** an email address. Reports and documents are sent as email **attachments** in **pdf** (<u>P</u>ortable <u>D</u>ocument <u>F</u>ormat) or as **csv** (<u>C</u>omma <u>S</u>eparated <u>V</u>alues) files. Open the attachments with Adobe Reader®, MS Access®, MS Excel®, and/or other programs.

Emailing is a **versatile** way to manage documents. Any emailed pdf file can be
- **Sent** to your local, network, or cloud **printer**, and/or
- **Saved** in your electronic files and/or
- **Forwarded** to another recipient, or
- **Displayed** and/or deleted.

Using email for document management makes Conveyorware completely **portable.** Information is always **accessible.**

The **multi-step** process of printing an attachment <u>can</u> be a <u>disadvantage</u> of using email. For example, direct printing makes more sense for Order Sheets and Packing Slips in high-volume warehouse order fulfillment.

✱   **To Send Reports and Printing to an E-Mail Address:**
From 999 <u>Work with Printing,</u> in the **Op** field for **Email Printouts**,

➔   Click on, or key **1=Select.**

The <u>Enter E-Mail Address</u> window appears.
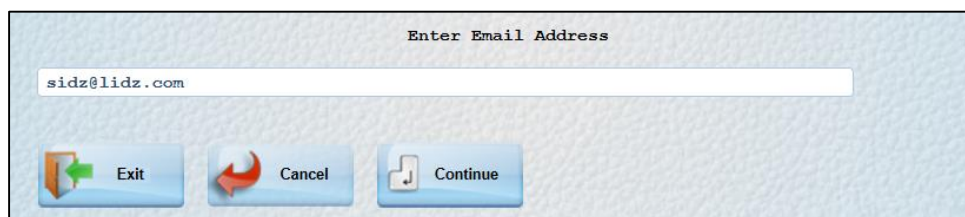
➔   Key **E-mail Address, [Enter].**

The system returns to the previous screen. **ALL documents** and **reports** for this **User ID** will be sent to this e-mail address. Each email's Subject Line identifies the attachment.

Note that there is **no outqueue for email.** (Ignore the list option 5=Work With. This choice applies only to printer/outqueues).

The <u>Main Menu</u> features several <u>on-demand</u> **csv** reports that can <u>only</u> be generated through email (i.e., they <u>can't</u> be <u>directly</u> printed). Several <u>Admin Menu</u> **csv** reports (Admin 626 [Email Reports]) can be scheduled to email automatically <u>every day</u>.

The **csv files** of these reports can be opened with MS Excel® (or any other **spreadsheet** program). This format allows users to collect, select, aggregate, and manipulate the sales and warehouse management data that they find most useful.

The 301 [CustListEmail] report, for example, includes columns with the account's Bill-To Contact and Email Address. These data can be used for emailed promotions.

One of the Day-End <u>Shipping Info</u> reports has address and tracking info for all orders shipped. Daily data from this source can be aggregated into a versatile contact database.

Default Outqueue:

For new Conveyorware subscribers, all documents and reports are sent to the Default OutQ. The <u>OutQ</u> screen lists reports and documents that are **spooled**; they have been created by the system, and <u>wait</u> to be processed or printed. These spooled files can be displayed, printed, or manipulated (now or later). The OutQ <u>Name</u> starts with the letter "O", followed by "0"s (zeros). It is <u>not</u> connected to a printer.

Conveyorware automatically generates several day-end reports whenever data exists in Customer, Inventory, Orders or Accounts Receivable records. These documents, after they are <u>in</u> the outqueue can be **manually** sent to a system-configured printer, or can they can be **displayed**.

The OutQ spooled **files**, however, <u>cannot</u> be sent to **Email.** For this reason, have **each User** select and specify Email printing if a **local printer** is <u>not</u> configured to Conveyorware.

In addition to storing files without printing them, the OutQ process helps to manage documents that:
- May involve confidential or sensitive information,
- May not be needed as paper documents, and/or
- Require dedicated paper stock (such as checks).

Use the outqueue screen to:
- See and/or Change the status of a document,
- Manually send the file to a system-configured printer,
- Display the contents of a document without printing it, or
- Find out why an expected document did <u>not</u> print.

This outqueue can be designated for Day-End <u>and</u> for Main Menu reports.

Users can also display their <u>own</u> outqueue, a <u>subset</u> of the Default OutQ that includes only files related to their User ID.

        ✱   **To Display the <u>Default Outqueue File List</u>:**
              In the Default OutQ's **Op** field,

        ➔   Click on **5=Work With**.

The <u>Work with Spooled Files</u> screen displays.

Work with Spooled Files - OutQ screen

Layout, Work with Spool File- OutQ screen

Screen Header:

>**Work with Spool File:**   The **name** of the output queue. For a **new subscriber**, all documents and reports default to the Environment Outqueue ("O0000…").

Columns:

>**Op:**   **List Options**. Click in this column to select a function for any spooled file:

>>**2=Change**   Displays the Change Spooled File window. Edit the Printer (OutQ), select Save, Page Range, and Number of Copies.
>>To print the file, key the Printer Name in the Printer (OutQ) field.

>>**3=Hold**   Holds the spooled file in this outqueue until manually released.

>>**4=Delete**   Completely deletes the specified document file. This action does not require confirmation.

>>**5=Display**   Displays the Data contents in this file. This display may look somewhat different from the printed document if there is an overlay in the file (as with invoices and other forms), or there is barcoding/graphic elements.

>>**6=Release**   Releases the file from a Hold status. The document will then print with 2=Change if a configured printer is specified in the Printer (OutQ) field

>>**7=Messages**   Displays messages about the file when "MSGW" displays in the Status column. Files in a **newly-configured printer**'s outqueue will be created with MSGW status until at least one file is manually released.

>**Report:**   The File / Document / Report name displays.

>**Sts** (Status):   Current status of the spooled file:

>>**RDY** (Ready):   The file is complete; the document can be sent to a configured printer, or otherwise acted on.

>>**OPN** (Open):   The file/document is not yet complete.

>>**HLD** (Hold):   The file/document is held. This option does not prevent the file from printing when a configured printer is specified with 2=Change.

>>**SAV** (Save):   The file is complete. When it does print, the document is automatically copied. **The copy** (with file name File2) remains in the **destination** printer's queue with Status SAV.

>>**PRT** (Printing): This document has been sent to print, but "print complete" status **(which removes the file from the queue)** is not yet received.

>>**MSGW** (Message Waiting): This file has a message that needs a reply or other action. A newly-installed printer always incurs this status for the first document(s) in the outqueue. Use List Option **7=Message** to **display and answer** the message.

>**Pages**   The total number of **pages (**or **documents)** in the file. If Status is OPN, the number of pages spooled so far. Note: An **asterisk (*)** here means that the exact size and content of each page is not known until the-file prints.

>**Date – Time**   The date and (24 hour) time the file was created.

[Next] / **[Previous]** display at lower right, in any list, if there are more list entries. Click on **[Next]** and **[Previous]** to navigate, or press **[Page Down]** and [**Page Up]** on a keyboard.

[Buttons] / F-Keys:

[Help] (F1):   Brings up a "Help" window with information about the cursor's field. From any [Help] (F1) window, press [Extended Help] (F2) for detailed information about the entire screen.

[Exit] (F3)**:**   Cancels the current screen and returns to the menu.

[Refresh] (F5):   Refreshes the list to include new or edited records.

[Details] (F10): Toggles to display a second line for each record, with Program/Screen Code that created the file.

[Cancel] (F12): Cancels the current screen and returns to the previous screen.

After you have a **local printer** configured to Conveyorware, **print any document** in the OutQ by specifying the configured **Printer Name** on the Change Spool File screen:

    ✱   **To Print from the Change Spool File screen:**
        From the Work with Spool File screen, in the document's **Opt** field,

      ➔   Click on **2=Change**.

The Change Spool File detail screen appears.

Conveyorware Administrative System	FMW A100000019 CHANGE WRKSPL7D1

Change Spool File

STOCK ACTIVITY SUMMARY FOR SELECTED WAREHOUSE

Printer(OUTQ)....:	O000000019
Save.........Y/N:	N
Start Page Number:	1
End Page Number..:	1
Number of Copies.:	1
Form Type........:	*STD

Keys   Enter   Reset

Help   Exit   Cancel   Continue

Layout, Change Spool File detail screen

The **File/Document/Report** title displays.

Printer (OutQ):   This Outqueue's Name. Note that the **first character** in a default OutQ is the letter "O" (for Out, not the numeral "0").

Save Y/N: Default is N=No. "Y" saves the file, keeping it in the printer's queue after it is printed (it is not saved in this OutQ).

Start Page Number: Defaults to Page 1.

End Page Number: Defaults to Final Page Number.

Number of Copies: Default is one.

Form Type: Default is *STD, standard 8.5" x 11" paper.

In the **Printer/OutQ** field,

➔   Key **Printer Name, [Continue]** (Enter).

The document prints <u>IF</u> the printer has an active signon session, <u>AND</u> the printer is powered on.

✱   **To Display a Spooled File/Document:**
In the document's **Opt** field,

➔   Click on **5=Display**.

The <u>Display Spooled File</u> detail screen appears with the **text** of the document: Notice that this screen   has a **limited** view of the document, and doesn't show the exact font and other features of the printed sheet.
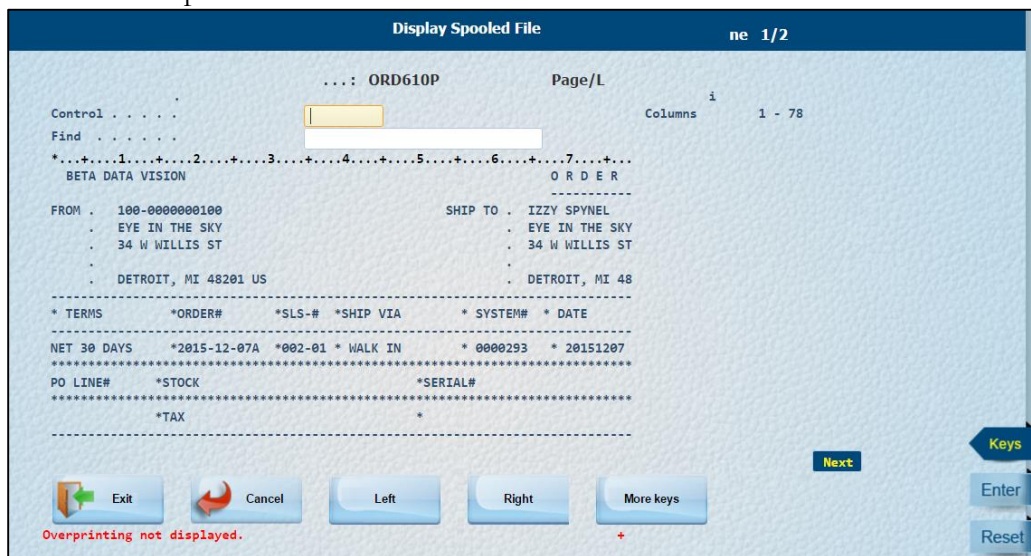
<u>Display Spooled File</u> detail screen, for an <u>Order Sheet/Pick List</u>

Layout, Display Spooled File screen

Control: Choose to use the **[Next] / [Previous]** buttons to navigate through the document(s), and the **[Left]**/**[Right]** buttons horizontally,

<OR> use the **Control** field with a '*function* +/- n' format. There's a <u>function</u> code, an optional <u>direction</u> code ('+' or '-'), and a <u>units</u> numeral for positioning the document:

Page once:	Pn, [Enter]: the screen moves down 'n' <u>page(s)</u> one-time-only.
Paging:	P+/-n, [Enter]: the screen moves **down (+)** or **up (-)** 'n' <u>page(s)</u> with each [Enter].
Scroll once:	n, [Enter]: the screen moves down 'n' <u>line(s)</u> one-time-only.
Scrolling:	+/-n, [Enter]: the screen moves down 'n' <u>lines</u> with each [Enter].
Left/Right:	(W=Window) Wn, [Enter]: the screen moves across 'n' <u>columns</u> one-time-only.
L/R Repeat:	W+/-n, [Enter]: the screen moves across 'n' <u>column(s)</u> with each [Enter].

Find: Use this search field to locate an exact word or phrase, a "String". This field is case sensitive, and requires a keyboard with F-Keys.

F-Keys/Buttons:

[Exit] (F3)**:** Cancels the current screen and returns to the menu.

[Cancel] (F12): Cancels the current screen and returns to the previous screen.

[Left] (F19): Displays the first 78 character columns of a document (default view).

[Right] (F20): Displays character columns 79 to 132 of a document.

[More Keys] (F24):
> **[Folded]** (F11): Displays tiny bits of the screen.
>
> **[Find Options]** (F14): Allows search on specific limited line numbers.
>
> **[Find]** (F16): Searches for any text "string" in the **Find** field.

Here is the **[Left]** view of the Order Sheet.

Control: Choose to use the **[Next] / [Previous]** buttons to navigate through the document(s), and the [Left]/[Right] buttons horizontally, **<OR>** use the Control field with a '*function +/- n*' format. There's a function code, an optional direction code ('+' or '-'), and a units numeral for positioning the document.

Page once: Pn, [Enter]: the screen moves down 'n' page(s) one-time-only.
Paging: P+/-n, [Enter]: the screen moves **down (+)** or **up (-)** 'n' page(s) with each [Enter].

Scroll once: n, [Enter]: the screen moves down 'n' line(s) one-time-only.
Scrolling: +/-n, [Enter]: the screen moves down 'n' lines with each [Enter].

Left/Right: Use the **[Left]** and **[Right]** buttons to scroll across the screen, <OR>
(W=Window) Wn. ,
[Enter]: the screen moves across 'n' columns one-time-only.

L/R Repeat: W+/-n, [Enter]: the screen moves across 'n' column(s) with each [Enter].

Direct Printing:

Direct printing from Conveyorware produces documents and reports **immediately** and **automatically**:

- Scheduled Day-End reports and documents print on the office printer at midnight.
- Warehouse Order Sheets/Pick Lists can print as orders are finalized.
- Shipping labels print as orders are fulfilled.

The setup process of configuring a printer lets Conveyorware give all of the instructions the printer needs to print output independently. Whether it's a paper, label, or point-of-sale receipt printer, clicking on a [Print] button on a Conveyorware screen produces printed results.

The automated functioning of direct printing has these advantages, but there are be drawbacks, too. The system prints <u>everything</u> scheduled or prompted, even if it's not always used or needed. And, unlike email, these documents exist only on the paper, and can't be saved or used electronically.

This image shows an **IBM i Access Client Solutions** program window.

In Conveyorware, **IBMiACS i**s able to create the **configuration** pathways for printers, and to **launch** and **manage** your printer logons from a **desktop**.

Your printer(s) must each be logged into the system to receive printing instructions. The printer's active logon is called a "printer session."
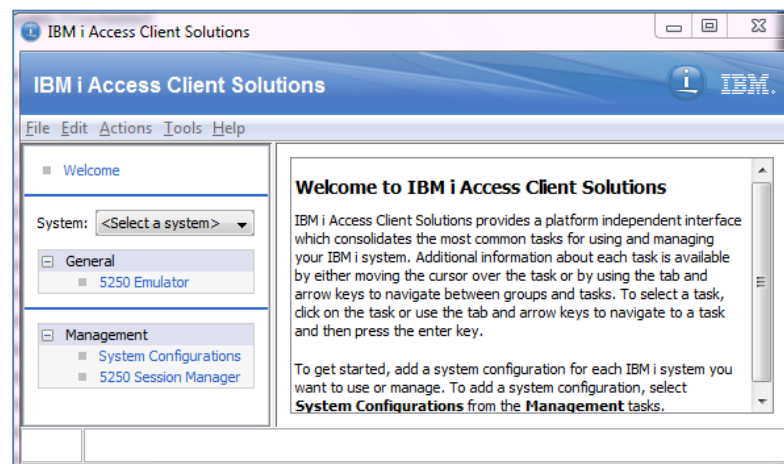
There are **three steps** to setting up the direct printing process:

First, Printer Configuration:
A. Download and install the IBMiACS program.
B. Identify the IBM Conveyorware computer that your PC will communicate with, and then
C. Identify the printer (Name/Description, Manufacturer, and Model) on your network so the system can send instructions in the correct format.
D. Activate the new **Printer Session**.

Next, Add the Printer to your Conveyorware environment. Office/paper printers and warehouse label printers are added with <u>Admin Menu</u> **Option 999** <u>Work with Printing,</u> using the <u>WebAccess</u> Login and the <u>Admin</u> User ID. A UPS Label printer (and other specialty printers) are added in <u>Main Menu</u> options.

Finally, Users select the printer for their documents, using the <u>Main Menu</u> Option 999 <u>Work with Printing,</u>. **Test the printer**, and check for barcode printing.

Requirements for Direct Printing Setup:

1. A **PC** to use as a printer station, <u>with</u>:

   a. The specific **Operating System** of the PC: Linux/Ubuntu, Mac or Windows.

   b. The current version of Oracle's **Java®.** (If not yet installed on the PC, go to <u>https://java.com/en/</u> , and click on **[Free Java Download]**.)

   > For a Windows or Linux/Ubuntu OS, the **bitness** of your OS can affect the Java version you'll run. Know that 32-bits is <u>always</u> the <u>default</u> version of Java. Even if you <u>do</u> have the specialized 64-bit Java running on your 64-bit Windows, ALWAYS select the **32-bit version** ACS Launch program for your OS.

   c. (Optional) For a **UPS Shipping Station**, the **PC Name**. The PC Name can be **up to 7 characters**.

2. An **Office Printer**. The printer must be connected/networked to the PC. See this chapter's <u>Appendix A</u>: <u>IBM i Compatible Printers</u> for information on the printer brands, models, and printer **language/drivers** that will work with Conveyorware.

3. Access to Conveyorware with both the **Admin User ID** and a **General User ID**.

To find the **PC Name**, and **the Operating System**, display your **Control Panel,** and then **System** window**:**

This example shows **Windows**.

Note that this Windows version has a **32-bit** System type. Some Windows and Linux versions have a **64**-bit type. Even if the System type <u>is</u> 64-bit, **always select** the **32-bit** <u>Start Program</u> during the A.C.S. installation.
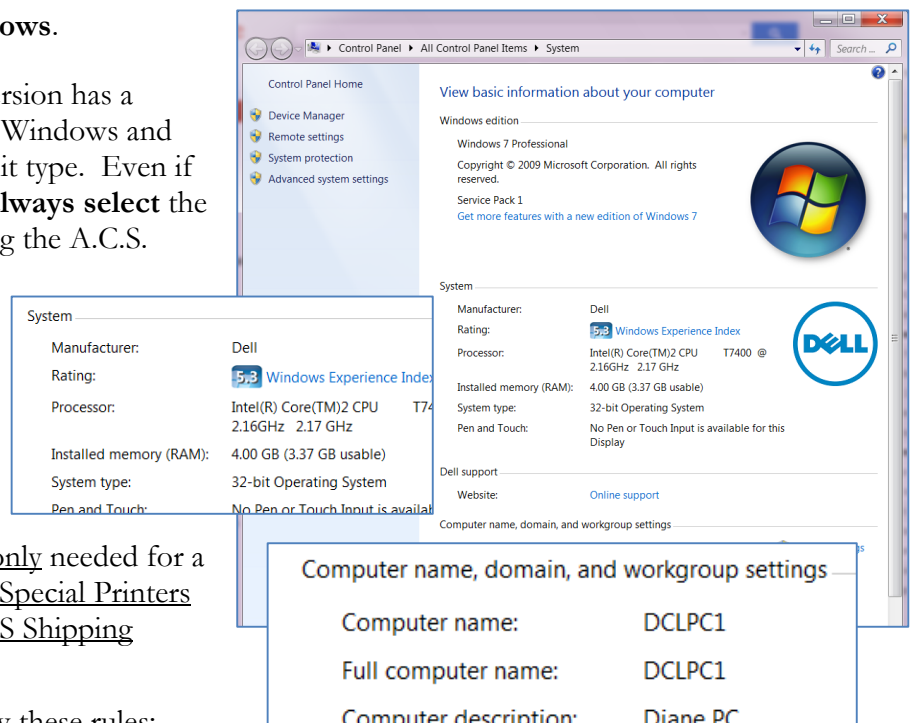
The **Computer Name** is <u>only</u> needed for a <u>UPS Shipping Station</u> (see <u>Special Printers</u> in this chapter, and the <u>UPS Shipping Setup</u> chapter).

The PC Name must follow these rules:
--Must **start** with a **letter** (**A** - **Z**)
--May be letters, numbers (**0 - 9**), **$, #, @, _** and/or**.**
--May be **up to 7 characters,** with no blank spaces.

The following instructions walk you through the printer configuration process.

Printer Configuration: IBMi Access Client Solutions®

Printing documents directly from Conveyorware (with a user's local printer) requires an active electronic pathway (as pictured at right):

- from the Conveyorware (Host) system,
- through a PC,
- to your networked printer.

Each printer (office printer, label printer, or Point-of-Sale register/receipt printer) receives print files tailored to its own software, and must have its own **active sign-on session** (a "5250 Printer" session) that enables it to directly receive and print Conveyorware documents.
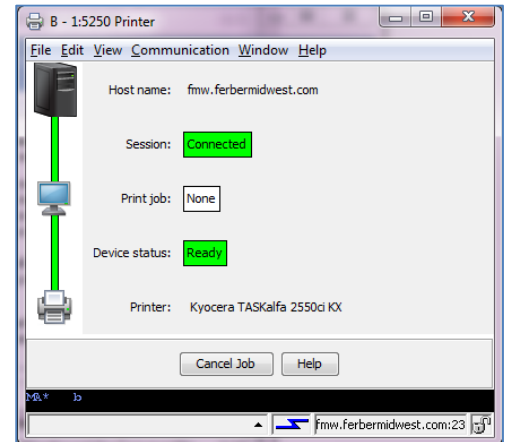
The **IBMi Client Access Solutions** program provides this **direct printer access** to Conveyorware.

IBMi Access Client Solutions is a **PC-installed** application that provides **access to Conveyorware** without a browser. It works with most popular operating systems from anywhere with internet access. This program sets up a **desktop icon** that allows **direct printing** from the Conveyorware system to your local printer (rather than indirect printing of pdf documents attached to emails). This program can also include **display access** to the system with a traditional IBM green screen (i.e., no graphical user interface).

Configuration A: Download/Install the Access Client Solutions Program

To install the program for use with your (work or home) **computer** and **printer**, download the **zip file** with IBMi Access Client Solutions**.**

- go to http://www.conveyorware.com.

From any page, on the Menu bar,

- select **Subscribers**, then
- click on **Support.**

On the Support page, click on the **Technology** link.→
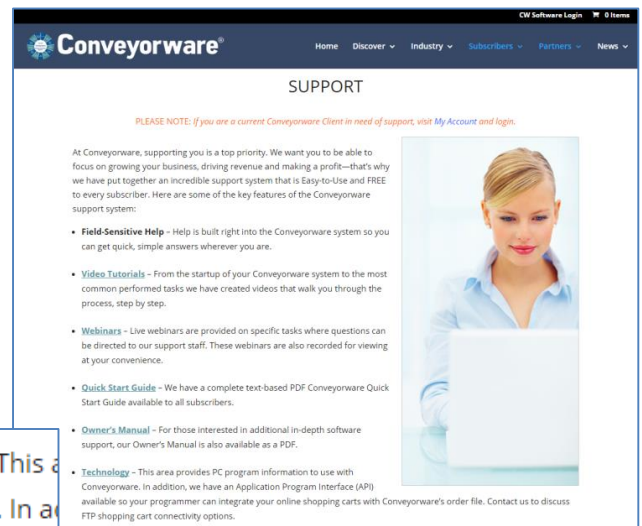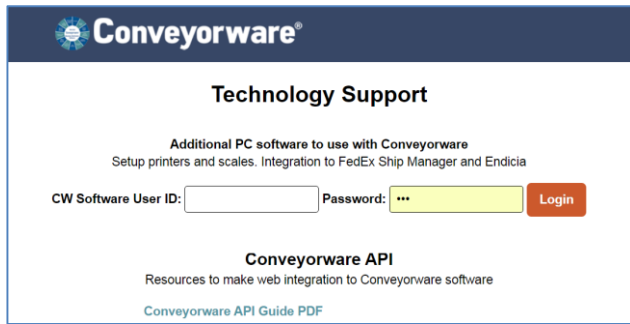
Under **Additional PC programs to use with Conveyorware**,

←Use your Conveyorware **User ID** and Password to **Log In.**

On this page, click on line 2,
IBMi Access Client Solutions…

The **Download file icon** appears at the bottom of your browser window:
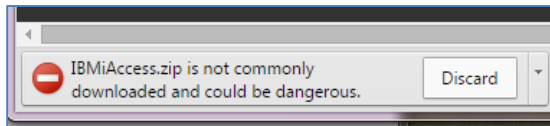
Remember that firewalls are <u>supposed</u> to be protective. Nevertheless: **If [Discard]** appears,

<u>click on</u> the ▼ symbol and select **"Keep".**

Now, **unzip the file: Extract** the application, and **save** it to your hard drive (root directory).

> Your **operating system** may differ from this illustration, so open and save the program appropriately for <u>your</u> PC.
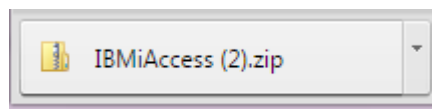
Double-click on the download icon**.**
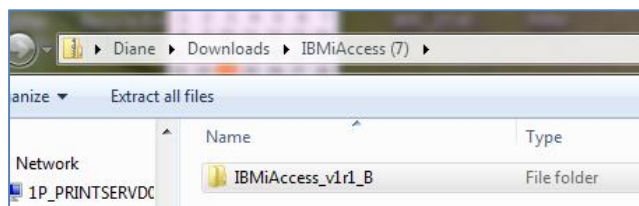
On the <u>Download Window</u>'s toolbar ↑, click on **[Extract all Files].**

On the <u>Extract</u> window, click on **[Browse].**

Then, on the <u>Select a Destination</u> window, select:

----your **Computer**, then

----your **Local Disk (C:),** and click **[OK]**.

Back on the <u>Extract</u> window, click **[Extract].**
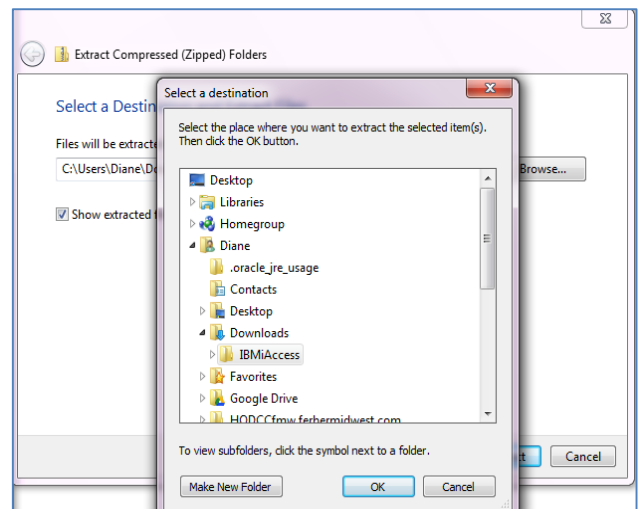
The program **download completes.** The IBMi Access folder is listed in your hard drive's root files.

Next, identify your PC's **Operating System**:
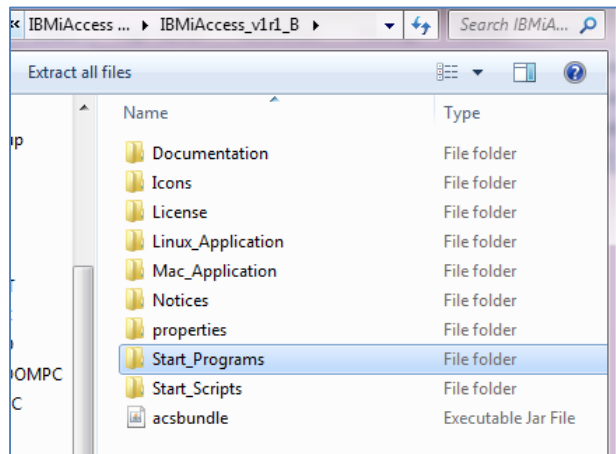
 Click to **open** the **IBMiAccess_v1r1_B** folder.

← Then, click on the **Start_Programs** folder.

And Choose a **Start Program:**

Click on the correct Start Program for your OS/Java version. For Linux and Windows, select ONLY the **32-bit Start Program.**
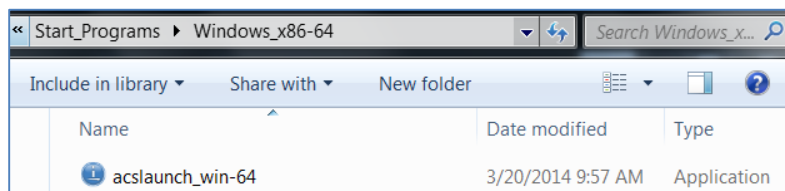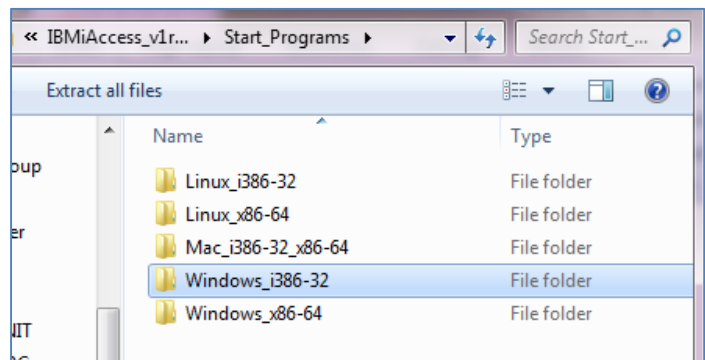
This is the **launch site** for the ACS program. **Double-clicking** here opens the IBMi Access Client Solutions window on your desktop.

While you're here, create a **shortcut** for your desktop:

Right-click on the **acslaunch_win…** file.

Select **Create Shortcut**, and then **Drag** the shortcut to your **desktop.**

You can **change the label** on the icon, if you like.

You'll **click on this icon** for the ACS program that launches **daily printer sessions.**

Right now, to open the ACS program, EITHER:
- **Double-click** on the desktop icon to launch, <OR>
- In the Start Programs window with **acslaunch_...**, **Double-click** on the file to open the program.

If Security/Firewall warning(s) appear:

For **Java,** the default selection is to allow communication on <u>private</u>, but not on public networks.

Click on **Allow access.**
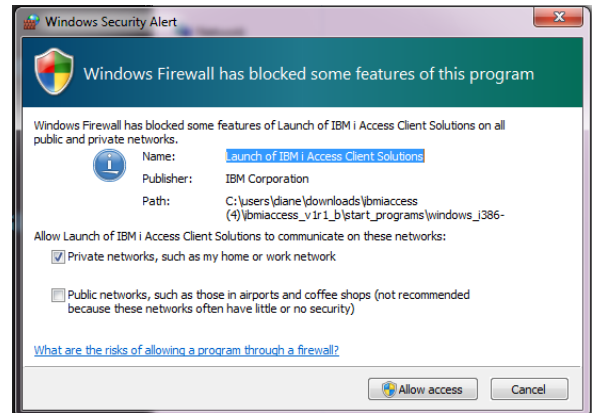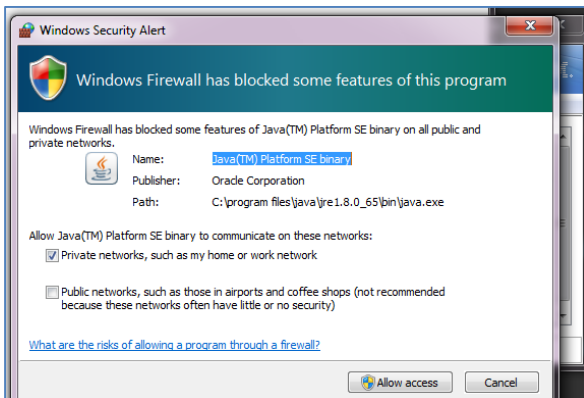
For **IBMi A.C.S.,** click on **Allow access.**

The **IBMi A.C.S. Interface Window** appears. The program is successfully **installed.**
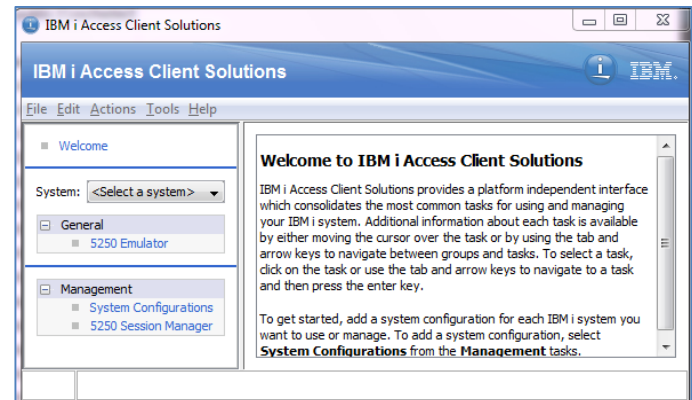
You'll click on your desktop **Launch Icon** to bring up this <u>ACS window</u> whenever you want to activate your system-configured printer(s).

The **next steps** for direct printing:

B. **Identify** the **IBM host system** to access

C. **Identify** the **printer's location** to the system, and

D. **Define** the system's customized **instructions** to your specific printer model.

Configuration B: Identify Conveyorware
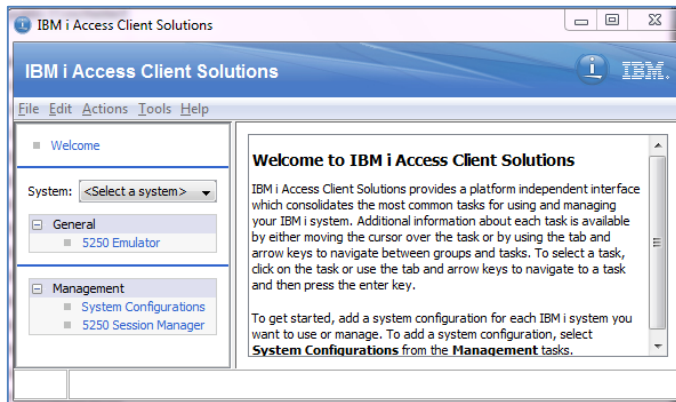
First, you'll specify **Conveyorware** as the IBMi **System** to connect to.

↑ In the menu on the left side of the window, under Management, click on **System Configurations**.

In the System Configuration window,

At lower left, click on **[New].**
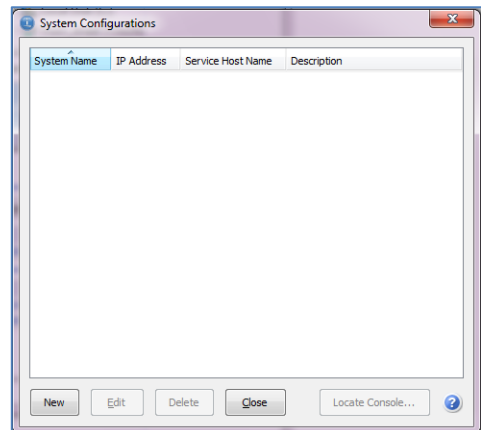
In the Add New System window,

on the **General** tab, **key** (do not paste) **these entries:**

System Name: **fmw.ferbermidwest.com**

Description: **Conveyorware system**

Click to select: **Use SSL for Connection**
(**S**ecure **S**ocket **L**ayer encryption).
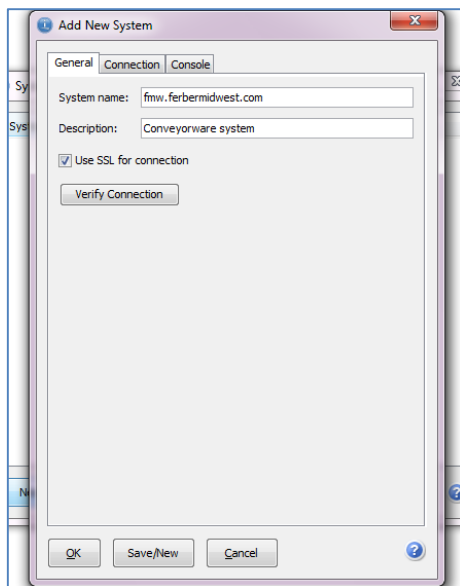
Then, Click on the window's **Connection** tab.

Click on the button for:
"**Use default user name to prompt once for each system"**,

and key your Conveyorware **User ID**.

Then, Click **[Save/New]** or **[OK]** to save the Conveyorware system to the Systems Configuration window.
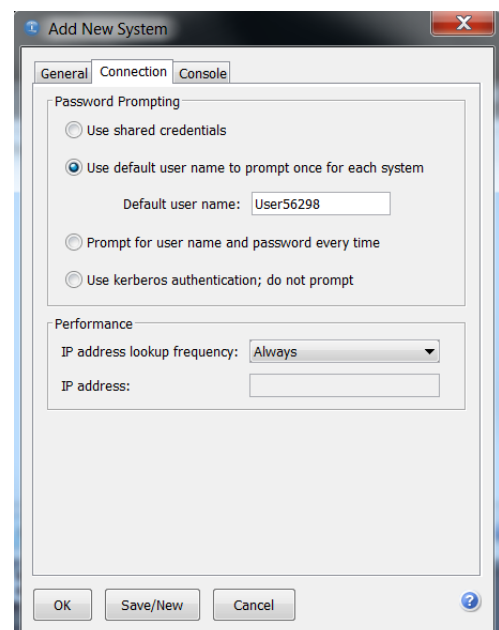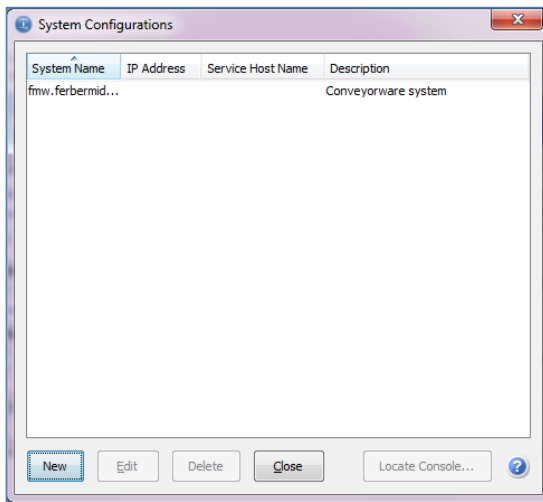
Conveyorware is listed now.
(fmw.ferbermidwest.com)

Click on [X] to close
the System Configurations window.

You're back at the **IBMi A.C.S. Interface window.**

In **System: <Select a system>**,
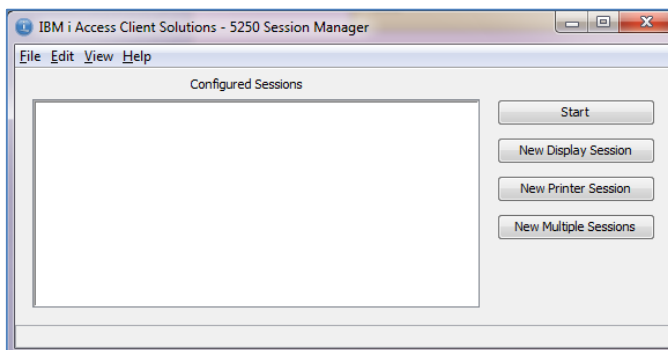Click to select **fmw.ferbermidwest.com**

Now, there is a **defined pathway**
between your PC and the Conveyorware
computer.

Next, you'll **define the rest of the
pathway** to your specific printer.

In the **Management** box, click on
5250 Session Manager. →
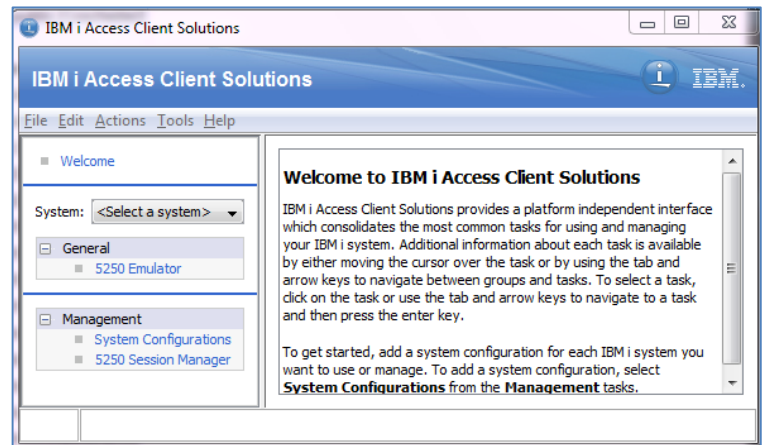
A "5250 Session" is the active, logged-in communication pathway for each configured
printer in your Conveyorware environment.

Each configured-printer **5250 Session** will
appear on the 5250 Session Manager window.

You can create many **Printer Sessions** here,
as well as (green-screen) **Display Sessions**.

[New Multiple Session] can link sessions so
they all activate as one group.

Click on **[New Printer Session]**.

The 5250 Printer session configuration window appears.

Configuration C: Identify the Printer to Conveyorware

There are three factors that **customize** the **instructions** from Conveyorware to the printer:

--The Manufacturer and **Model**: the language for printing content and printer-specific instructions.

--A **Customizing Object**: think of this pre-built program as a tweak to the Mfr/Model instructions, such as overriding a paper tray default, compressing a type font, etc.

--The printer's "**Advanced Printer Options**" setting (In your PC's Printers and Devices file).

In the **5250 Printer window's Connection** pane, key in only these fields:

Destination Address: **fmw.ferbermidwest.com**

Destination Port: **992**   (delete the "23")

Workstation ID: Your **Printer Name/ID**

Workstation ID is used in Conveyorware 999. Work with Printing as the **unique Printer Name** that users will select.
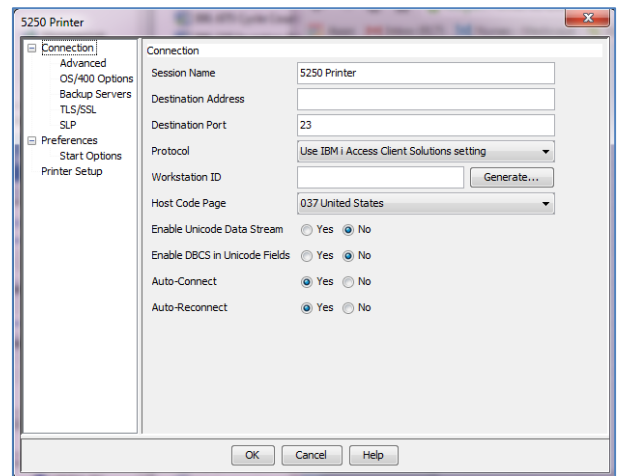
You'll need this ID later. **Write it down: _____!**

↓ Then, in the left column under **Connection**, click on **OS/400 Options**;
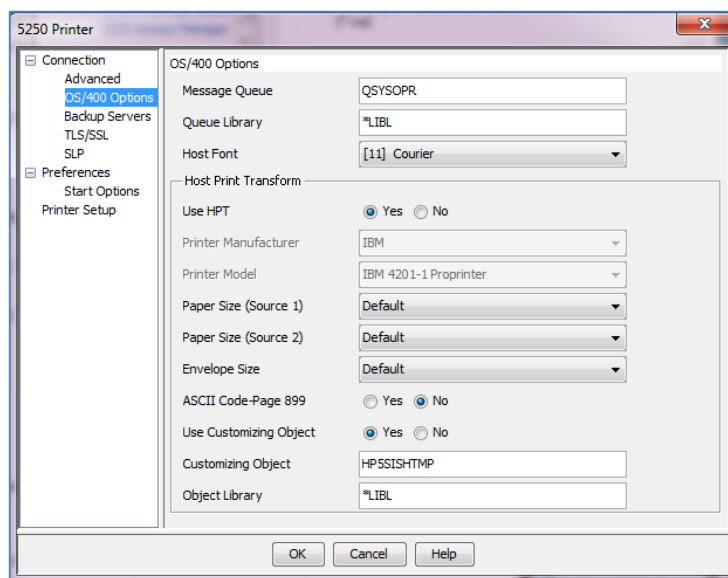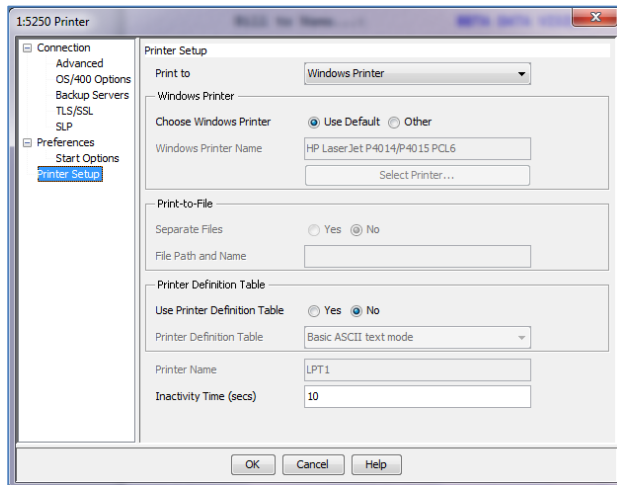
At the bottom of the window,

For Use Customizing Object, **Click on Yes**.

In Customizing Object, key: **HP5SISHTMP**

In Object Library, (view/) key: ***LIBL**

> Note: Use this Customizing Object for a **standard paper printer.** Label Printers and POS Sales Registers use different C.O.s. See the Special Printers sections, and Appendices.

↑ Then, under **Preferences**, click on **Printer Setup**.

On the <u>Printer Setup</u> panel:
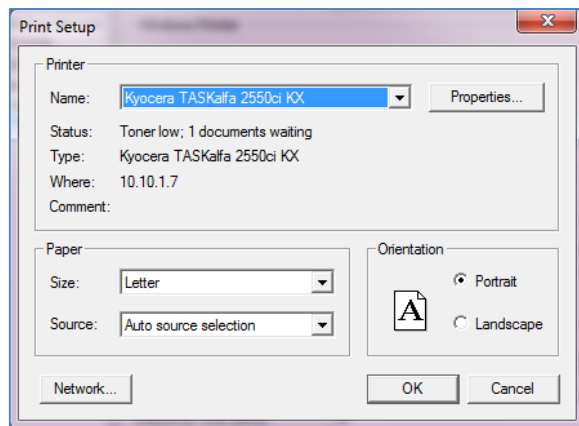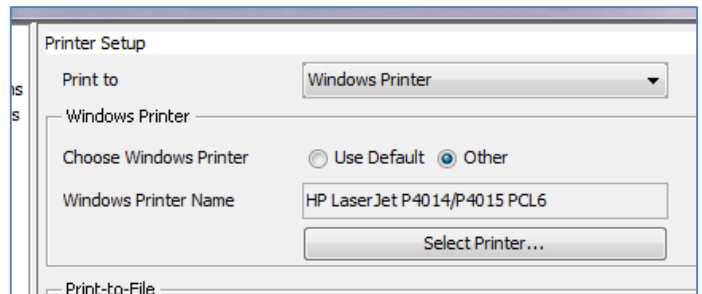
If you have **only one printer** in your network:

---In the **Print to** field, <u>keep</u> "**Windows Printer"**.

You'll see <u>your</u> **default** printer in the **Windows Printer Name** field.

If there's **more than one printer** in your network, you can select a **different** printer:

In the **Windows Printer BOX**, next to Choose Windows Printer, click on the **"Other"** Button.
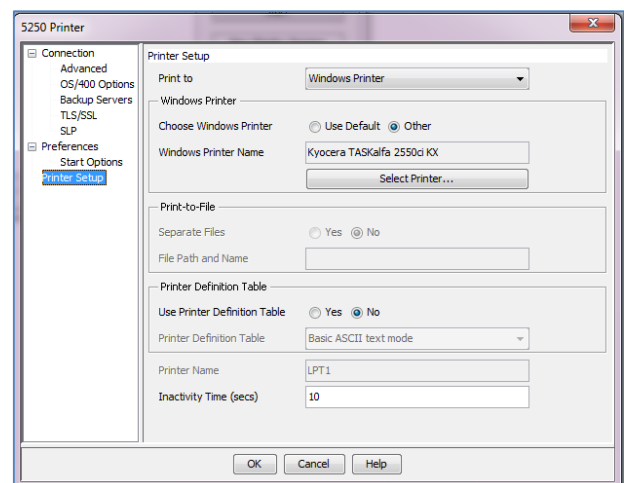
Then, click on the [**Select Printer]** bar.

C**lick on** the correct printer in the **drop-down list** of printers in **your network**.

At the <u>bottom</u> of the **Print Setup** window, click on **[OK].**

Then, at the bottom of the **5250 Printer** window, click on **[OK].**

The **printer** is now **configured** to the system.
The electronic **path** is **completed.**

Configuration D: Launch and Save the Printer Session
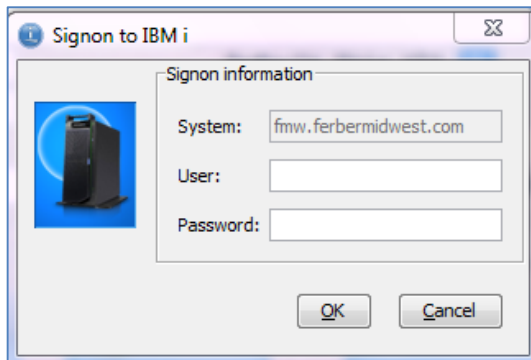
The **Signon to IBM i** window appears.

Log in with your Conveyorware **User ID** and **Password.**

The **Printer Status** window opens, and the **5250 Session** becomes **ACTIVE**.

Both **Session** and **Device Status** fields should now be **Green.**

Notice the Printer Name on this window is the Manufacturer/Model from the **Select Printer** field.

The Printer Session configuration process is **complete**, but the session's information is **not saved**.

On the Printer Status window's Menu Bar, click **File**, and select **Save**.
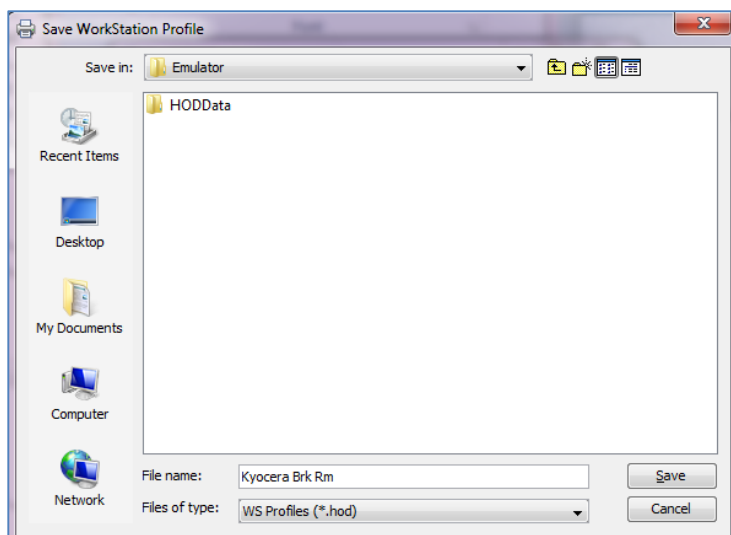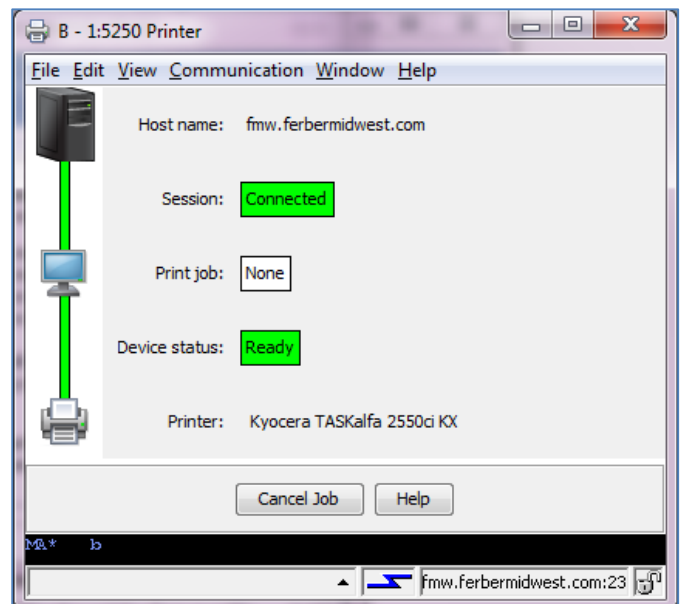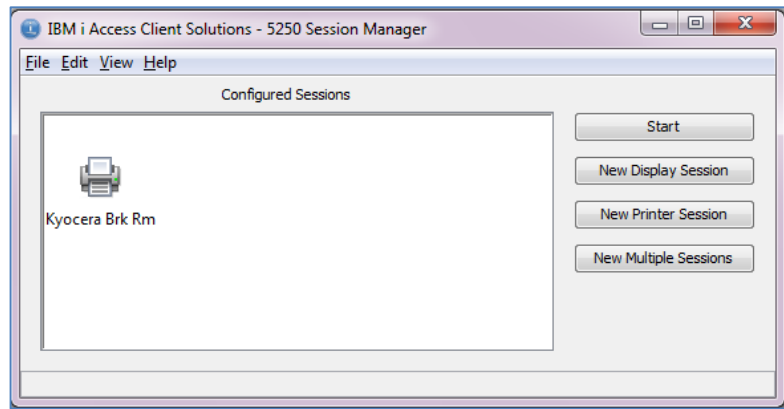
The **Save WorkStation Profile** window appears:

In the **File name** field, key the **Name** for this printer session.

Use up to **15 characters;** this name displays with the printer icon on the 5250 Session Manager screen.

Click on **[Save].**

The Session Manager window now displays the Printer Session icon with the Printer Session Name.

> **IBM i Access Client Solutions - 5250 Session Manager**
>
> File Edit View Help
>
> Configured Sessions
>
> 🖨️
> Kyocera Brk Rm
>
> Start
> New Display Session
> New Printer Session
> New Multiple Sessions

There may be **several windows** now open on your desktop. Only the **5250 Printer Status window** (with the **green status bars**) needs to **remain open** when the printer is logged in for use.

Depending on your printer model, there may be one more step required for direct printing from Conveyorware. The printer may need its own setting for "**Advanced Printer Options**" set to **Enable**. See the section Test Print, following.

Finally, you'll **add** the **configured office printer** to your Conveyorware **Printer list** with Admin Menu Option 999 Work with Printers.

Note that specialized printers (for UPS Shipping, and for Point of Sale) are added your environment differently. See the Specialized Printers section, following.
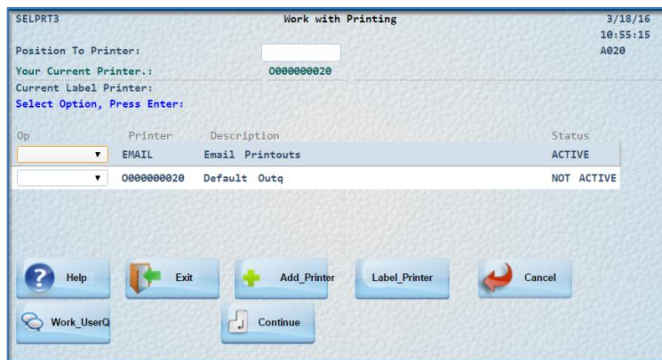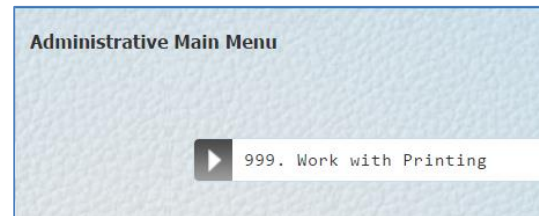
Add a Printer to Conveyorware: 999. Work with Printing

Log in to Conveyorware using the **Admin ID** and password,

(**Admin Menu** 999 is the only place to ADD (or delete) a printer.)

Administrative Main Menu

999. Work with Printing

Click on **999. Work with Printing**.

The Printer Selection window lists the default Outqueue, Email selection, and any existing configured printers.
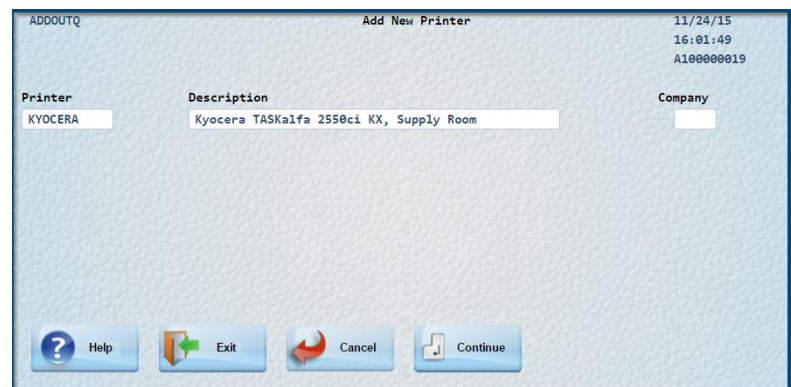
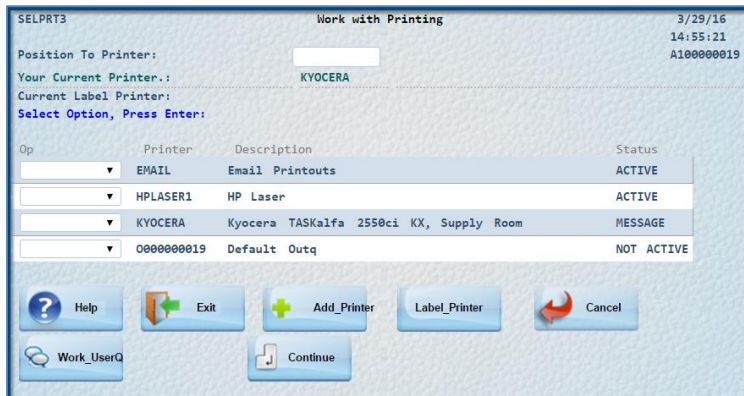Click on **[Add_Printer].**

On the Add New Printer window,

In the **Printer** field, key or paste the **Workstation ID** (Printer Name) from the 5250 Printer Connection pane.

In the **Description** field, key the brand/model, the location, and/or a specific User.

Leave the **Company** field blank, or restrict the printer to ONE Company Number.

Click on [Continue].

The new printer appears in the 999 Work with Printing list. **Users** can now select the printer for their output.

A listed printer can be selected whether it is Active or Not Active.

Note: The **first time** the printer receives Conveyorware print files, they will NOT automatically print. The printer will have **MESSAGE status**.

- **Select** the list Option **5=Work With** to display the printer's Message window.
- In the Message Opt field, select **ANSWER**.
- On the Command line type "**G**". This **Go** command clears the hold from the file.
- The document **prints** and the printer displays **ACTIVE** Status.
- **New** documents will print normally.

Have each **User select** (with Main Menu 999 Select Printer) a printer **before** doing work that generates documents. A new User's output is sent to the Default Outq until a printer or email is specified.

Schedule Day-End reports to the configured printer with Admin Option 901 Work with Report Distribution. For default reports (that automatically go to the Default Outqueue), use list option 2=Change to select the configured printer, if desired.


The **Printer Status** "**Active**" in 999 Work with Printing, or "**Ready**" in the Session window, does **not** mean that the **Printer's Power** is on.

Any documents sent to the printer when it is **offline** accumulate in the printer's **queue.** Display these files by selecting **5=Work With** in the printer's **Option** field.

Add Additional Printers

To configure additional printers, follow the same steps as above.

Start with the **IBMiA.C.S. Interface window**:
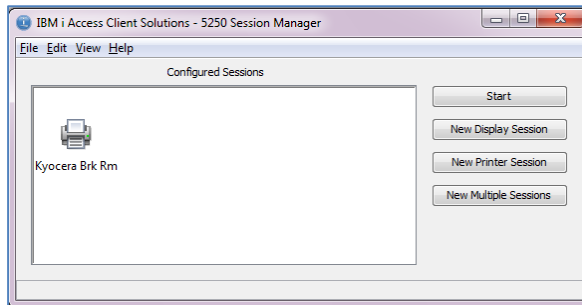
Click on [**New Printer Session]** to add another printer.

Complete the installation process with Configuration Sections C and D, and then add the Printer to Conveyorware Admin Option 999. Work with Printing.

Test Print: Printer Properties

Some printers have **default settings** that **don't respond** to all of the printed elements of Conveyorware documents. In order to print **barcodes**, or to include the overlay of some printed forms, you may need to change a setting on the printer's Properties panel.

Create a **test order,** and use Main Menu 983. Print-On-Demand Order Sheet to **Test-print** an **Order Sheet.**

There should be a **barcode** at the **bottom** of the page.
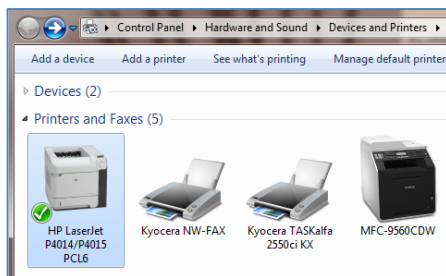
If the **barcode** is **missing,** fix this with a setting in your PC's **Devices and Printers** file:

Right-click on the printer's icon, and go to the configured printer's Properties window.

(If the dropdown has both **Printer Properties** and Properties, choose printer props. Click on the **Advanced** tab.)

Find and select:
   "**Enable advanced printing features**" →
                    Click **[OK]**.
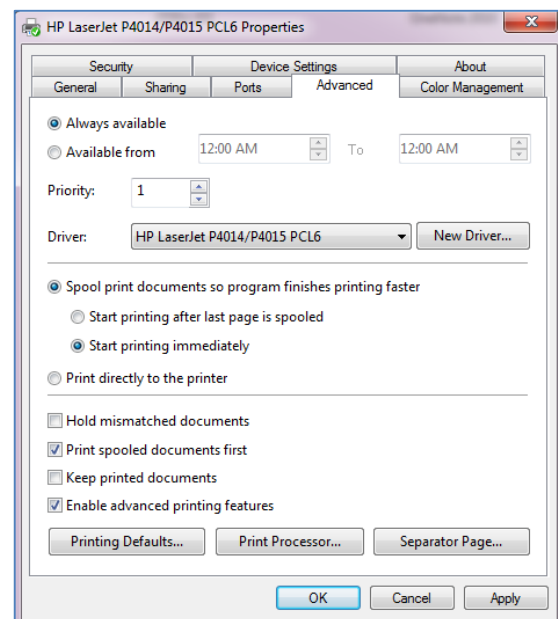
Reprint the Order Sheet; the barcode will be included. Note that formal Purchase Orders (750.301), Bills of Lading (335.336) and other documents are also affected by this printer setting.

BEWARE of printers **sleeping on the job.** Check to **be sure** that Conveyorware's **printer writer** will wake the printer.
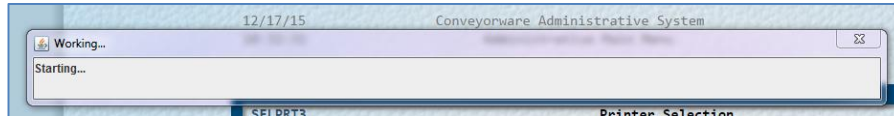
Daily Use, Conveyorware-Installed Printers

Once a printer's communication path is configured for Conveyorware (see the IBM i Access Client Solutions section), **daily use** is simple:

1. Make sure **each printer** is **powered on.**

2. From the **PC's Desktop, double-click** on the IBMi Access Solutions **icon:**

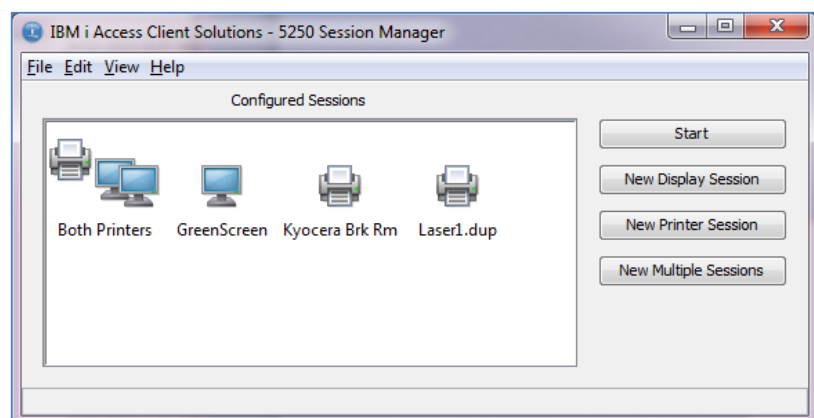   A **Start Window** briefly appears:

   Followed by the **IBMi ACS** window.

3. Click on
   5250 Session Manager →

The **5250 Session Manager** window appears. This window lists the Configured Printer Sessions for your local network. Sessions may be displayed as **Icons** or as **Names** in a detail list.

4. **Double-Click** on a **Printer Icon** (or listed Name).

Notice the **Multiple Session** icon (with both printer & screen). This icon will activate the sessions for **several or all** of the configured sessions on this window. Each configured session activates with its own 5250 Printer Status window.

A **5250 Printer Status** window pops up, with the **Signon to IBMi** window with your **User ID.**

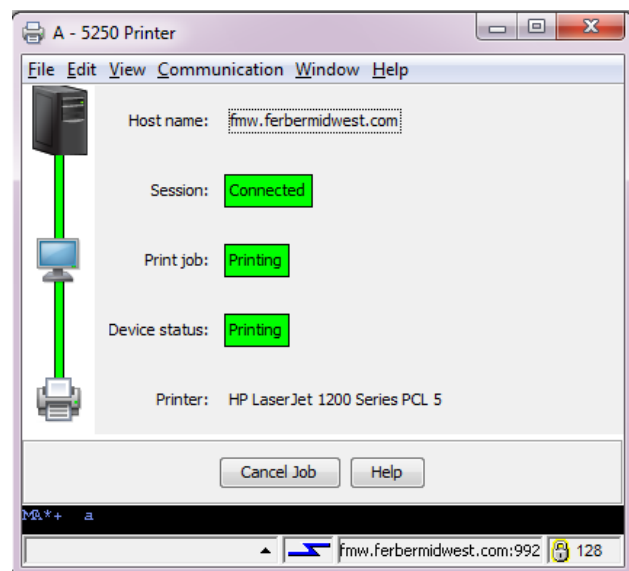**5.** Sign in to the system with your **Password**, and click **[OK].**
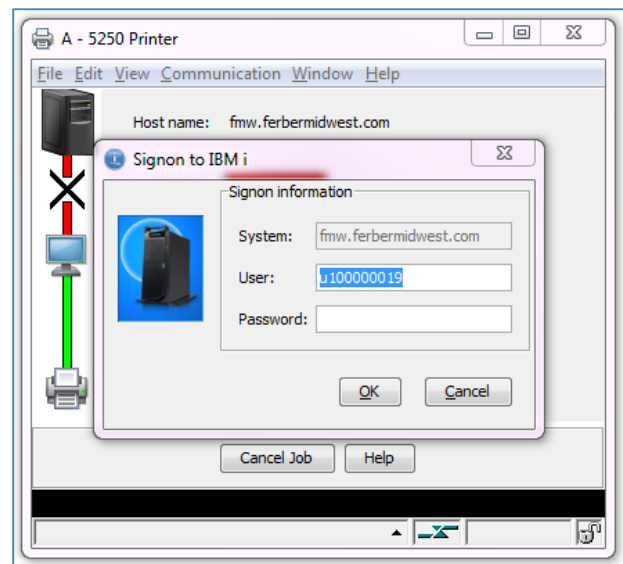
The 5250 Printer Status window should show that

the **Session** is **Connected** , and that

the **Device** (Printer) status is **Green.**

6. Leave this Status window **OPEN.**

The other IBMi ACS windows can be closed.

7. Again, be sure that the **Printer** is **powered ON.** The Status window only shows that the communication pathway is active.

8. To close the Printer Session, **close** the Status **window**. For multiple active sessions, close each Status window.


The **[Cancel Job] button** stops an in-process Print job. **[Help]** brings up an IBM "Help for the printer session" tab in your browser.

Note that when the Printer Session is **active,** but the printer itself is **not powered on**, any output files are saved in the 999 Printer outqueue. These spooled files **automatically print** when the printer is later **logged in** AND **powered on.**

Use the IBMi ACS 5250 Sessions Manager window's [**New Display Session**] to add a Green-Screen Conveyorware display session. This **non-gui all-text screen** display does not use click-to-select navigation, but can be useful for substantial data entry tasks.

Launch the IBMi ACS program, and then click on 5250 Session Manager.
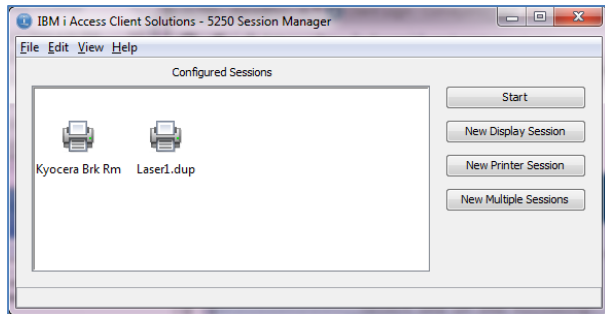
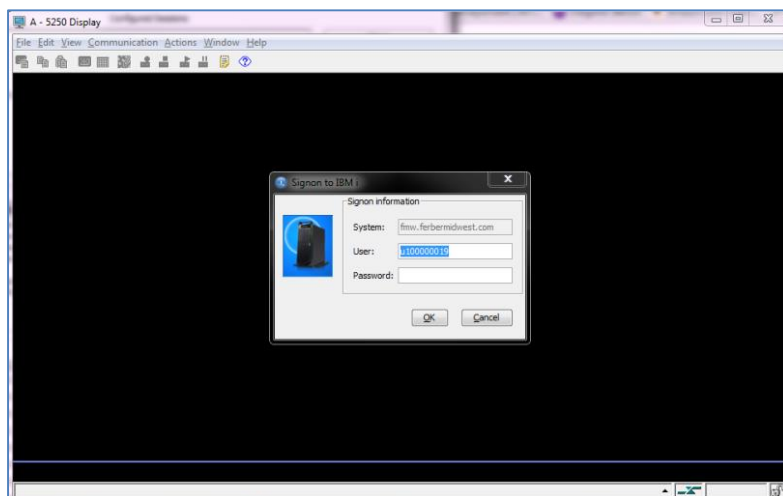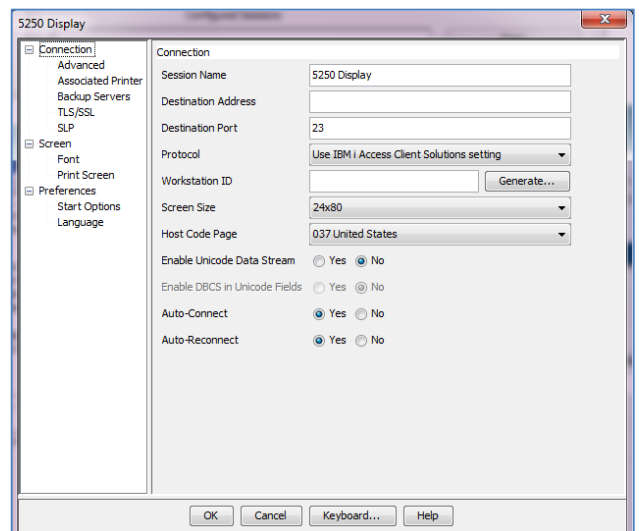The Display Session process is simple:

On the Session Manager window,

Click on [**New Display Session**].

On the 5250 Display window,
key in only these fields:

Destination Address: **fmw.ferbermidwest.com**

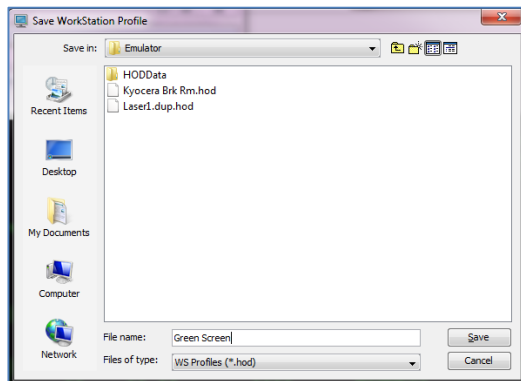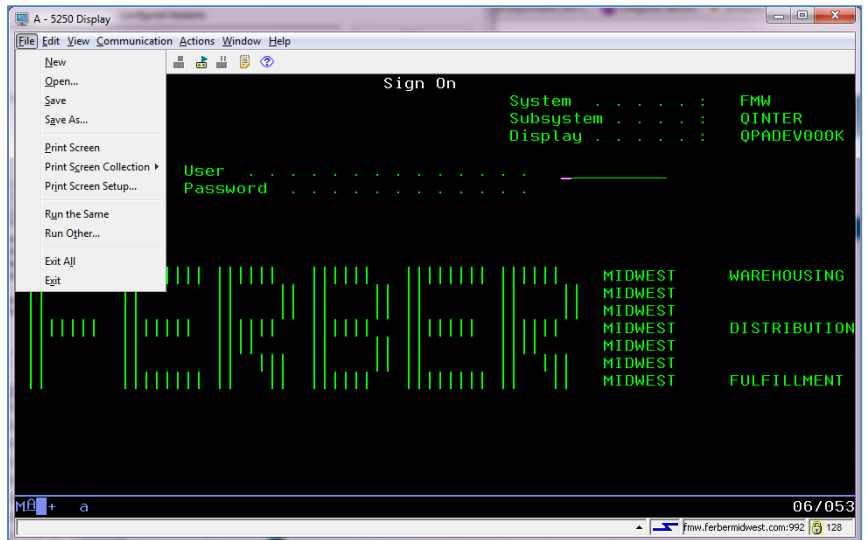Destination Port: **992** (delete the "23")

Click [**OK**].

The **Signon to IBMi** window appears, on top of the blank **5250 Display Session** window. .

Log In with your Conveyorware **User ID** and **Password.**

Then, on the Green Screen, Click on **[File]**, and then on **[Save]**.

Key any **Name** to appear on the 5250 Session Manager window with the Display Screen icon.

Click **[Save]**.

The Display icon appears with the session name.
As with the Printer sessions, click on [Start] to activate the Display Session.
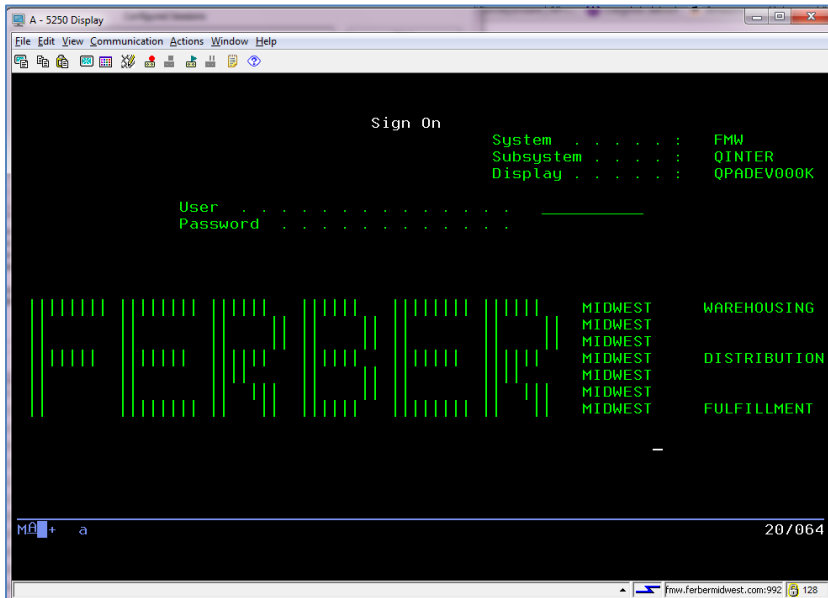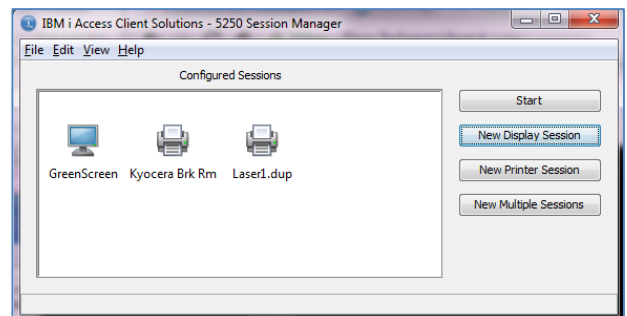
This 5250 Display screen is the same programming as the browser-based Conveyorware software.

Remember that the navigation and commands/entries structure, however, are different.

[New Multiple Sessions]

The **5250 Session Manager** window has a **[New Multiple Sessions]** option.

Use this simple process to **group some** or **all** of your configured printers (and/or display sessions) in order to **activate them all at once.**

To begin, be sure that **all of the sessions** to be grouped are **Active now.**
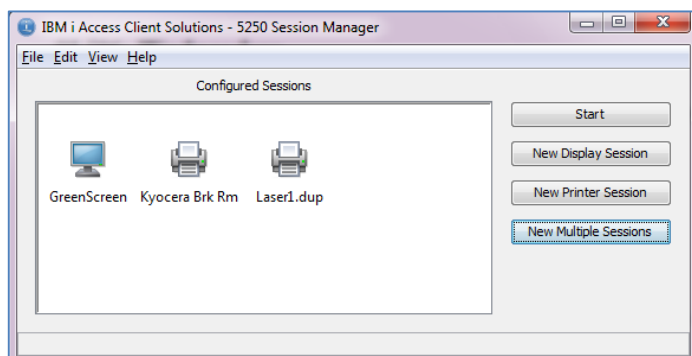Then, click on **[New Multiple Sessions].**

The Create or Modify Multiple Sessions File window lets you group the sessions.

Click on any of the active configured **session file**s in the Emulator file list.

Either:

Click once. The session name will appear in the **File Name:** field. Then click on **[Add].**

<OR>

Double-click on the file name.
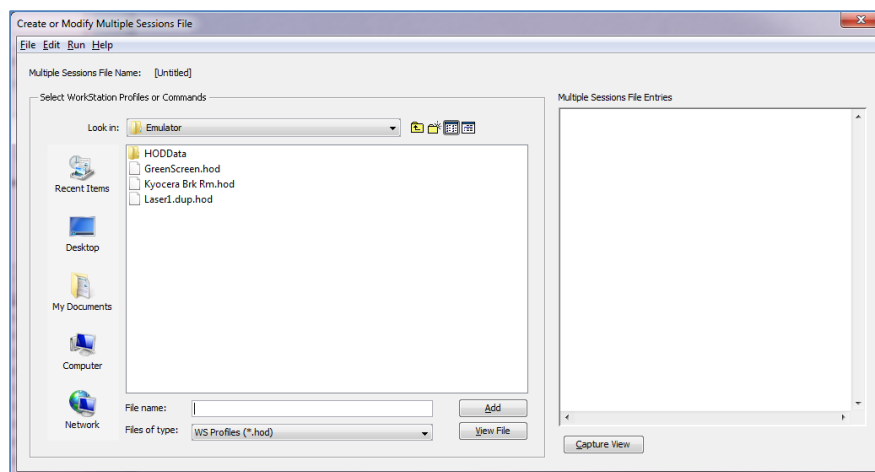
The file then appears **in the right column**, in the Multiple Sessions File Entries list.
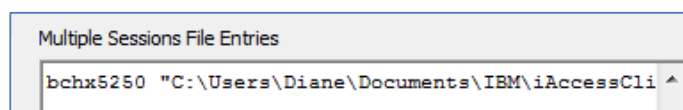
The file name (which includes its location) is longer than is visible. Use the Scroll Bar (if you need) to confirm the full Session Name.

Add as many sessions as desired. Then, on the Create or Modify.. Menu Bar, click on **[File]**, and then on **[Save].**

On the Save Multiple Sessions File window, in the **File Name** field,

key a **Name** for the combined sessions. Click on [Save].

Then, click on [X] to close the Create or Modify Multiple Sessions File window.

The new **Multiple Session Icon** (here as "Both Printers") appears on the 5250 Session Manager window.

You can now close the existing active Session Status windows.

Note that the single-icon sessions are still displayed in the Sessions Manager window. Each session can still be activated individually.
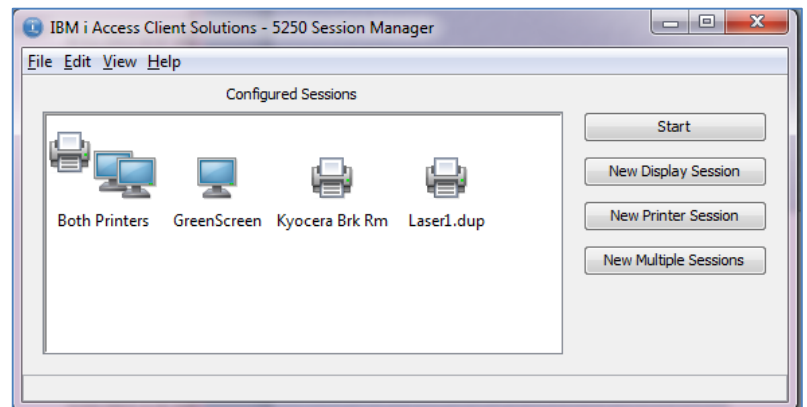
Now, click on the **Multiple-Session** icon.

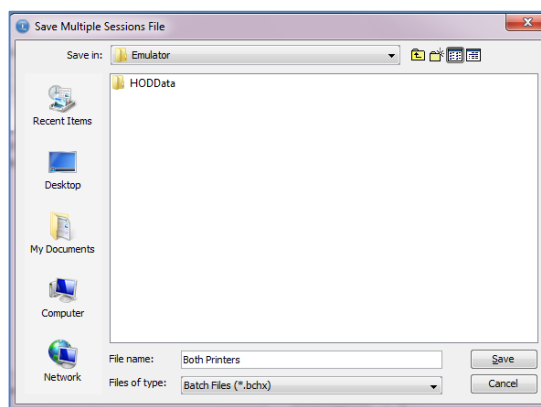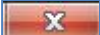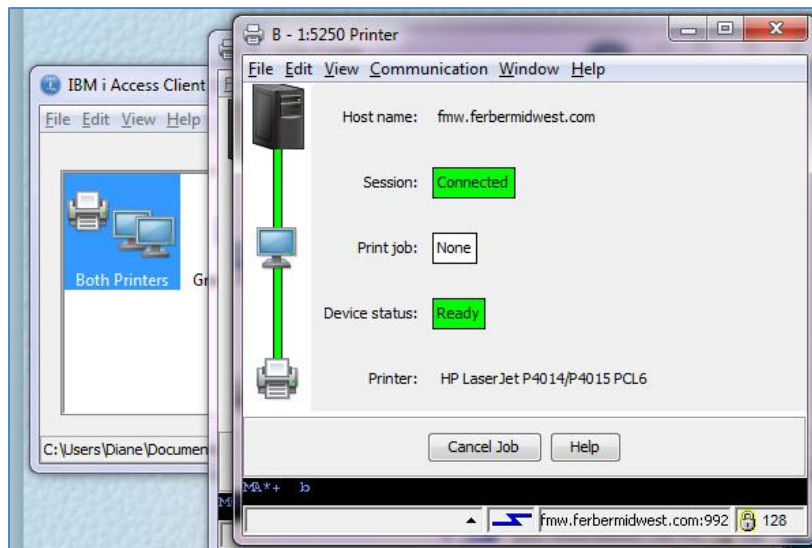Both printer sessions activate, with Session Status windows **stacked together.**

Keep the Session Status windows open to maintain **Active** status for the printers. (Other IBMiACS windows can be closed).

To **Deactivate** sessions when **not i**n use, click on [X] for each Session Status window.

Special Printers:

Specific label printers can be configured to print Conveyorware's **4" x 6" Shipping and Receiving labels** for cartons and pallets.

UPS parcel labels (also 4" x 6") can print directly, too, on the **Zebra ZP 450.** The subscriber's UPS account must be approved (by UPS) and added to Conveyorware.

Shipping Labels for other parcel carriers are generated through those services, don't use direct output from Conveyorware, and aren't included in this setup process.

Special Printers: Zebra 105SE/105SL for Warehouse Labels

This industrial-grade **thermal transfer** printer is recommended for up to 5,000 labels per day. It can print the 4" by 6" pallet/carton Warehouse labels for each stock receipt transaction, and/or for each completed freight order (automatically or on-demand).

Repeat the same **configuration** steps as for an office printer. The only difference is on the 5250 Printer window's Connection pane:

> Customized Object: **Z4XIWSCST**
>
> Object Library: **TLABARCODE**

Record the **Workstation ID (Printer Name)** and be sure the Zebra 105SE/SL is **added to the PC** as a local/network printer.

In **Admin 999** Work with Printing:

> Click on **[Label_Printer]** (F8), and on the Label Printer window,
>
> Click [Add Printer] (F6).

```
SELCOD7                    Add Label Printer              2/05/16
                                                          10:40:05
                                                          A100000019

        Outq........:      [          ]

        Type........:      [        ]

        Description.:      [                    ]

        Building....:      [    ]

        Company.....:      [    ]


     (?) Help      Exit        Cancel        Continue
```

On the Add Label Printer window, key in the fields:

Outq:	The **Workstation ID** (Printer Name) from the 5250 Printer Connection pane.
Type:	**zebra**
Description:	This field displays on the 999 window printer list. Key the brand/model, location and/or user.
Building:	**"1"**, a required field. This field is related to the 328 Work with Warehouse Building field.
Company:	Leave this field blank, or restrict the printer to ONE Company Number, if desired.

Click **[Continue]** to save.

Remember to **activate** the Printer Session, and to have **Users select** the Label Printer for their use.

United Parcel Service is **integrated** within the Conveyorware software, and can:
- Accept parcel **weights** directly from your **connected scale***,
- Immediately **add** the **shipping charges** to invoices******, and
- **Print** shipping labels on UPS's own label stock in your local label printer*******.

For the complete **UPS Shipping Station** hardware and software requirements, see the Admin/Setup Manual chapter, **UPS Shipping Setup**. The full process (in sequence) is detailed there.

Be sure the Zebra ZP450 is **available to the PC** as a local/network printer. **Configure** the Zebra ZP450 thermal label printer **before** starting the **UPS Setup** process.

There are two changes in the basic configuration process for the **UPS Printer:**
- A different **Customized Object** and **Library**, and
- The **Workstation ID/Printer Name** is still limited to **10 characters**, but it is added to your system in Main Menu's 981 Work with UPS Shipping (UPS Setup, Step 6).

The **UPS Printer Session** should be configured to launch from the UPS Shipping Station PC. Its session can be grouped with other printers with a **multi-printer icon**, if desired.

Follow the **Office Printer configuration** process, but in Configuration C, Identify the Printer to Conveyorware, specify a different **Customized Object** and **Library:**

Customized Object: **ELT2WSCST**
Object Library: **TLABARCODE**

Complete the direct printing setup instructions through **Configuration D: Launch and Save the Printer Session** (ending with page 26).

Do not register the Label Printer with Admin 999. You'll register this printer to your UPS Shipping Station as you add the integrated scale.

Your label printer is ready for **UPS Shipping Setup, Step 6.**
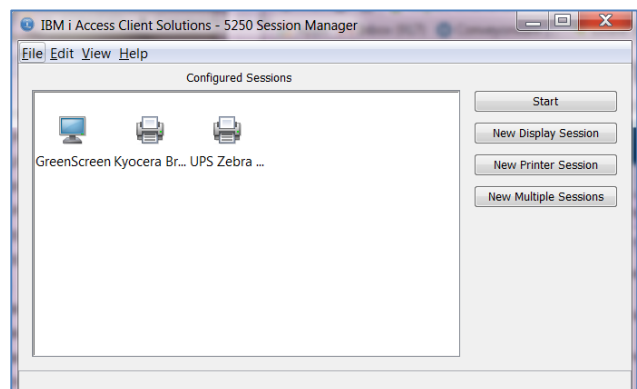
Note: This same printer can be used for FedEx and USPS labels. Conveyorware's **Parcel Ship Data** program can **export** completed order data to a PC for use with Endicia Professional (USPS) and/or FedEx Ship Manager account(s). Because their labels don't print directly from Conveyorware, an active printer session isn't required for these carriers.

*:   A connected serial port scale with an active Scale Program session. See UPS Shipping Setup.
:   The **confirmed UPS charge can print on the Invoice at **order completion**.
***:   **UPS supplies** its own **label stock**. Contact your UPS rep; they may supply **the printer.**

A Point-of-Sale "**cash register**" consists of a PC/device, a connected electronic cash drawer, and a connected receipt printer. (A barcode scanner is not <u>required</u>.)

Add the Cash Drawer/Printer just like a paper printer, with **these exceptions** (see **page 21**):

In the **5250 Printer window's <u>Connection</u>** pane, key in these fields:

<u>Destination Address</u>:   **fmw.ferbermidwest.com**

<u>Destination Port</u>:   **992**   (delete the "23")

<u>Workstation ID</u>:   <u>Your</u> **Printer Name/ID**

Then, beneath **<u>Connection</u>**, click on **OS/400 Options**;

For <u>Use Customizing Object</u>,   **Click on <u>Yes</u>**.

Customized Object: **QWPDEFAULT**

Object Library: ***LIBL** (the default)

Use the **Workstation ID** (from the configuration process) as the **Receipt Printer Name** on the **620 <u>Work with Registers</u>** <u>Add a Register</u> screen. (<u>Don't</u> use Admin 999 to add a Sales Register's printer.)

Conveyorware sends both **printer output** and **printer drawer** "**Open**" commands through the active printer session.

Point-of-Sale receipt printers will display A=Active status on the 620 <u>Work with Registers</u> list screen <u>regardless</u> of Printer Session activation. I=Inactive displays <u>only</u> if the register is disabled.

Remember:
- **Activate the POS receipt printer session** when the receipt printer is powered on.

- The **Cashier** (User) selects the **<u>Register</u>** that is connected to the printer, and <u>doesn't</u> use the normal 999 <u>Work with Printing</u> selection.
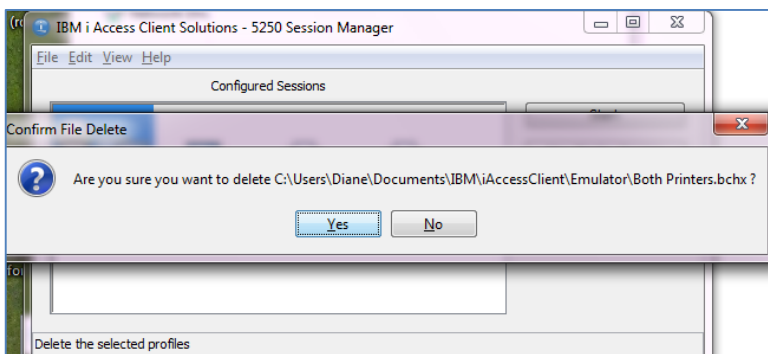
Delete a Printer

As printers are added to the system in two ways, delete them accordingly, in both the ACS program and in 999 Work with Printing.

To **delete** a configured Printer:
from the IBMi ACS Session Manager window:

1. **Right-click** on the printer, and on the Context Menu, select **Delete**.
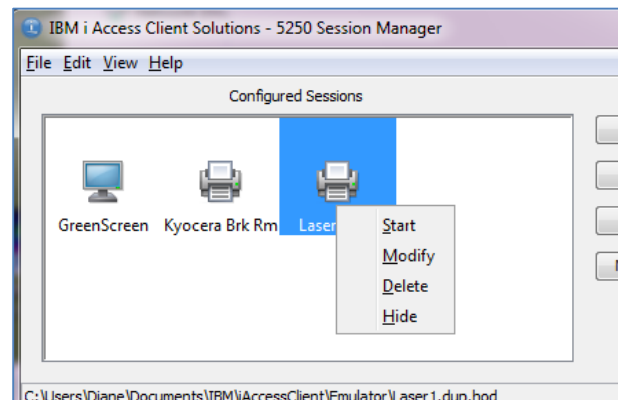
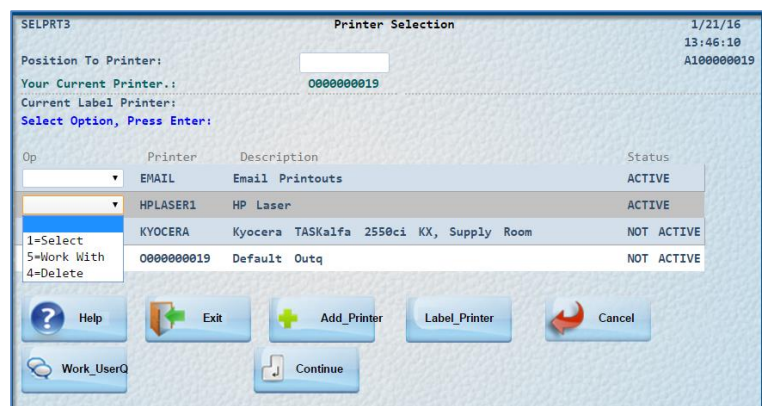

2. Confirm the deletion:
click on **[Yes]**.

The Session Icon no longer appears on the Printer Session window.

3. Then, in **Admin** Menu Option 999 Work with Printing:

   In the printer's **Option** field, click on **4=Delete.**

   NO confirmation is required. The printer disappears from the list.

If you test a configured printer and find a problem, it's easy to go back to the 5250 Display window to edit the session settings.

To **Modify** a configured Printer:
from the IBMi ACS Session Manager window:

> **Right-click** on the printer, and on the
> Context Menu, select **Modify**.
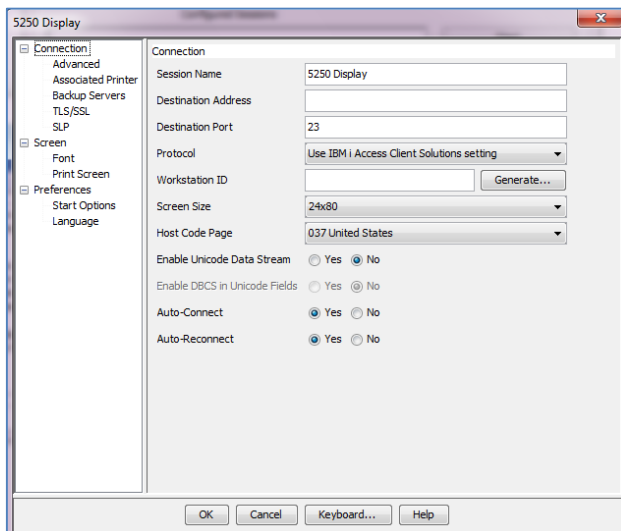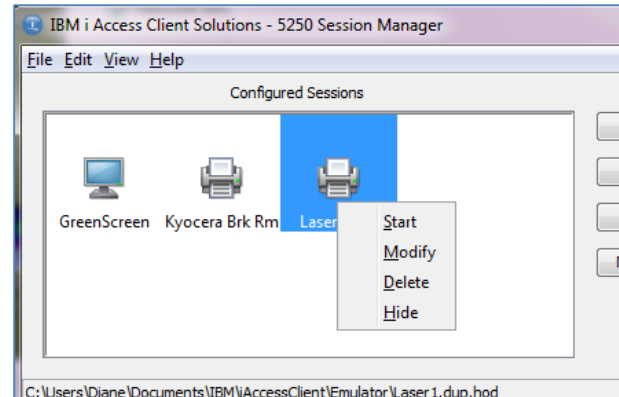
The 5250 Display window appears, with the Connection tab open. Use the setup instructions to navigate, editing settings as needed.

When finished, click on **[OK]** to save.

Appendix A: Printer Compatibility

IBM's **HostPrintTransform** output process can support many different types of ASCII data streams. For example, it supports the **Hewlett-Packard**** printer control language (**PCL**), the IBM personal printer data stream (**PPDS**), and the **Epson** FX** and **LQ** data streams.

Post Script (developed by Adobe Systems) is a popular printer language, and is widely used, but **can not** be used with the IBMi data stream. Conveyorware printing requires, generally, PCL. Some Post Script printers can use a PCL driver; it may be possible to setup your printer with a PCL driver.

Regardless of the Mfr/Model, we **recommend** that you
- **First** configure your PCL office printer with "**HP5SISHTMP**" Customizing Object, and
- **Test print**. If this C.O. doesn't work, then its time to try a different C.O.

The **IBM link**, below, can help you sort this out. Generally, know that **HP office printers** are reliably compatible.

Compact (and very inexpensive) **All-In-One printers** may use PCL, but still not be able to print the system's barcodes and overlays. The **Advanced Printer Options** setting may not exist, so check for this setting, especially for "**home office**" printers.

Information on Printers from Various Manufacturers:

http://www-01.ibm.com/support/docview.wss?uid=nas8N1019605

This **IBM support** page starts with the **video**: Selecting the Right Manufacturer and Model for Your Printer. It describes use of their **Manufacturer/Model tables**.

The page has a long list of Printer Manufacturers. Select the Manufacturer, and then find the Model/Model Group in the detailed tables.
--If the **Host-Based** column has "**N**",
--Look at the **MFRTYPMDL for HPT*** column.
     If this column has an entry (that is not "n/a"),
--Copy the entry. Use this entry in the configuration process as the **Printer Name/Model.**

Note that, for some printers, you'll find a code that specifies a completely different printer manufacturer. Enjoy this little white lie. IBM has already cleared it with Watson.

*****M**anu**F**acture**R** **Typ**e **M**odel for **H**ost **P**rint **T**ransform

Appendix B: Workstation **Customizing Objects**

There are **IBM-supplied** workstation customizing objects that correspond to Manufacturer Type and Model (MFRTYPMDL).   These COs code for additional printing instructions.

In <u>direct</u> printing, the Conveyorware system has to send ALL of the instructions the printer needs. Often, the printer's default **Paper Source** has to be selected or overridden, or the **Page Size** has to be specified. (Remember that the user <u>doesn't</u> have any control over the local printer settings, and provides the [Print] command through the Conveyorware program.)

Pre-Built Workstation Customizing Objects (WSCSTs) from IBM System i Remote Technical Support.   For detailed information:
> http://www-01.ibm.com/support/docview.wss?uid=nas8N1019007

> This document contains a save file with pre-built WSCST objects for some of the most requested and most helpful customizations.   The save file also contains a source physical file with the WSCST source code.

Customized Object:	**Text** / Description:
EPDFXDRAFT	Epson DFX-5000/8000 with forced Draft Quality
EPDFXNLQ	Epson DFX-5000/8000 with forced NLQ Quality
EPFXDRAFT	Epson FX-870/1170 with forced Draft Quality
EPFXNLQ	Epson FX-870/1170 with forced NLQ Quality
EPLQDRAFT	Epson LQ-570/870/1170 with forced Draft Quality
EPLQNLQ	Epson LQ-570/870/1170 with forced NLQ Quality
EPSQDRAFT	Epson SQ-870/1170 with forced Draft Quality
EPSQNLQ	Epson SQ-870/1170 with forced NLQ Quality
IBMDRAFT	IBM Proprinter with forced Draft Quality
IBMNLQ	IBM Proprinter with forced NLQ Quality
IBM64DRAFT	IBM 6400 with forced Draft Quality
IBM64EPDRF	IBM 6400 (Epson Mode) with forced Draft Quality
IBM64EPNLQ	IBM 6400 (Epson Mode) with forced NLQ Quality
IBM64NLQ	IBM 6400 with forced NLQ Quality
PCL5	PCL5 with modified CPICOR tags for 13.3 CPI
PCL5AUTOSL	PCL5 with modified CPICOR and auto-select tray
PCL5AUTOS2	PCL5 with modified CPICOR and auto-select tray
PCL5COUR	PCL5 with modified CPICOR tags for Courier
PCL5DUPLEX	PCL5 with modified CPICOR tags and forced duplex
PCL5GOTHIC	PCL5 with modified CPICOR tags for Letter Gothic
PCL5PORTRT	PCL5 with modified CPICOR tags and forced portrait
PCL5RASTER	PCL5 with modified CPICOR and RASTERMODE tags
PCL5RASTR2	PCL5 with modified CPICOR and RASTERMODE tags #2
PCL5SIMPLX	PCL5 with modified CPICOR tags and forced simplex
PCL5TUMBLE	PCL5 with modified CPICOR tags and forced tumble

HP5SISHTMP
HP5SISAMP
HP5SISHEET
HP5SIPACK