
Adaptio

Host Print Software for Windows®

User's Guide



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Preface

I-O's **adaptio** Host Print Software for Windows® converts IBM's SCS and IPDS proprietary data streams into data streams that can be sent to ASCII based printers. In essence, adaptio makes a standard printer look like an IBM host printer to an IBM iSeries midrange or zSeries mainframe host.

This document describes the installation, basic configuration and operation of **adaptio**. Companion documents describe in detail the configuration of the IBM host, the customization of the I-O SCS and IPDS Printer Emulation and the adaptio Management Utility's various screens and configuration parameters. These are:

- The SCS Reference Manual
- The IPDS Reference Manual
- The **adaptio** Management Utility Help manual

Each of these documents can be easily accessed on the **adaptio** Help menu. They can also be found on the installation CD or downloaded from ftp://ftp.iocorp.com/Host_Print/adaptio/

The guide consists of the following chapters:

- **Introduction:** Provides an overview of I-O's **adaptio** Host Print Software for Windows.
- **Installation:** Describes how to install **adaptio**
- **Configuration:** Describes how to setup **adaptio**.
- **IBM Host Configuration:** Provides an overview of the setup process for both the iSeries midrange and zSeries mainframe hosts. The detail processes are fully described in two companion documents, the SCS Reference Manual and IPDS Reference Manual.
- **Operation:** Describes how to use **adaptio**.
- **Advanced Configuration:** Provides an overview of the configuration customization capabilities of the product. Customization of I-O's SCS and IPDS printer configuration are more fully described in two companion documents, the SCS Reference Manual and IPDS Reference Manual.
- **Troubleshooting:** Provides solutions to operational problems that you may encounter while using the product.
- **End User License:** States the license and warranty conditions.

The following symbols are used in the guide:



Caution: This symbol highlights procedures that if not correctly performed or adhered to, could damage or corrupt the product or adversely affect the security and functionality of the product. Do not proceed beyond such points until the required conditions are fully understood and achieved.



Note: This symbol denotes useful additional information that is relevant to the procedure or feature being described.



Tip: This symbol denotes a hint, shortcut or alternate method to aid or supplement the procedure being described.

Consistent with our policy of continuous development, the product you received may have features different from those described in this guide. Please visit our web-site www.iocorp.com for current information.

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Introduction

This chapter provides a brief overview of I-O's **adaptio** Host Print Software for Windows.

adaptio is a software product that converts IBM's proprietary SCS and IPDS data streams into standard printer languages used by products from companies such as HP, Canon, Kyocera, Xerox, Okidata, etc. Print jobs are sent from the IBM host to **adaptio**, converted and then redirected to the desired printer. **adaptio** accomplishes this by converting IBM's EBCDIC character set to the ASCII character set. IBM's SCS command structure is converted to PCL 3, Epson or Proprinter command languages while IPDS is converted into PCL 5e.

In addition to converting SCS print jobs for printing on non-IBM printers, **adaptio** is able to "enhance" SCS print jobs by adding formatted text, barcodes, logos, images and so on to create checks, invoices, statements, estimates and other graphically oriented business documents. These professional, graphics-rich documents (Enhanced SCS documents) are automatically created by **adaptio** without modifying host applications or data streams. **Adaptio** accomplishes this by using templates that are triggered by some unique value on the SCS print job. Templates are created using the optional FormPort Designer software. User's may either purchase the FormPort Designer software and create the templates themselves, or contract with Capella's Forms-on-Demand professional design service.

adaptio is a software product that runs as a service on a Windows 2000 Professional, Windows 2000 Server, Windows 2003, 2008, 2012, or 2016 Server based server. Configuration and operation of **adaptio** is accomplished through I-O's easy to use console application, **adaptio** Management Utility, which is also installed on the same server as the service.

Connection of the I-O host printing product to the IBM host is accomplished over an Ethernet link between the server **adaptio** is installed on and the IBM host using TCP/IP. Destination printers are also connected on the Ethernet link.

For SCS data streams, TN5250e is used for iSeries connections while TN3270e is used for zSeries connections. For IPDS data streams, IBM's proprietary PPR/PPD protocol is used (this is occasionally called Port 5001 Sockets).

For 5250 hosts when using TN5250e, configuration is only required at the I-O product as the IBM host will automatically create a print device, writer and spooler. However, the IBM host must be configured to use TCP/IP and TN5250e, and setup for automatic device configuration.

For 3270 hosts when using TN3270e, configuration is required at both the I-O product and the IBM host.

For IPDS, configuration is required at both the I-O product and the IBM host.



CAUTION: BECAUSE OF THE COMPLEXITY OF CONFIGURING IPDS AND/OR MAINFRAME PRINTERS, A KNOWLEDGEABLE HOST SYSTEM ADMINISTRATOR OR IBM SPECIALIST MUST PERFORM THE PROCESS. THE INSTRUCTIONS CONTAINED IN THIS AND RELATED DOCUMENTS ARE INTENDED TO ONLY PROVIDE A BRIEF OVERVIEW OF THE PROCESS.

Once the **adaptio** and IBM host are properly configured, print jobs sent from the IBM host are issued in IBM's proprietary EBCDIC character set and use the SNA Character String (SCS) command structure or the Intelligent Printer Data Stream (IPDS). The I-O Printer Emulation in **adaptio** converts EBCDIC to ASCII and the SCS command structure to PCL 3, Epson or IBM Proprinter command structures while IPDS is converted into PCL 5e. The I-O Printer Emulations can be customized to change the host print attributes if needed (CPI, page orientation, edge-to-edge, etc.). For 3270 hosts, the I-O SCS Printer Emulation will also handle the DSC (LU3) data stream as well as the SCS (LU1) data stream.

I-O has also included several advanced printing features in the I-O SCS Printer Emulation. These include the ability to send printer specific commands as part of the SCS data stream that the IBM host does not know the printer can perform. Other features include I-O's bar code language, graphing language, and even color support.

I-O's IPDS Printer Emulation includes customization capabilities for font substitutions capability, simulated edge-to-edge capability for printing on non-edge-to-edge printer, paper tray mapping, etc.



NOTE: FOR BREVITY, THE TERMS “PRINT SERVER”, “PRODUCT” AND “I-O PRODUCT” WILL REFER TO THE SPECIFIC I-O PRINT SERVER, PRINT BOX, ETHERNET DISPLAY, THIN CLIENT, SOFTWARE PRINT SERVER, ETC. HOST PRINTING SOLUTION THAT YOU ARE USING. SYSTEM I5, ISERIES AND AS/400 HOSTS WILL BE REFERRED HEREIN AS 5250 HOSTS. ZSERIES AND S/390 MAINFRAME HOSTS WILL BE REFERRED HEREIN AS 3270 HOSTS. THE TERM IBM HOST AND HOST WILL ALSO BE USED AND REFERS TO THE APPROPRIATE 5250 OR 3270 HOST WITHIN THE CONTEXT OF THE TOPIC BEING DISCUSSED.

Installation

This chapter covers the process to install I-O's **adaptio** Host Print Software for Windows.

Requirements

The following are the requirements for installation of **adaptio**:

- Windows 2000 Professional, Windows 2000 Server, Windows XP Professional or Windows 2003 Server
- Microsoft .NET Framework V1.1 or 3.5 (3.5 will need to be installed if not present)
- Pentium 4 Class PC with 1 GHz process or faster
- 512 MB RAM or more
- Static IP Address assigned to the PC
- Qualified Windows and IBM host administrators
- Network attached PCL 5e/6 laser, Epson or IBM Proprinter compatible dot-matrix printers

Installation Process

The following are the steps to install I-O's **adaptio** Host Print Software:



NOTE: MAKE SURE YOU ARE LOGGED IN ON THE PC AS THE ADMINISTRATOR BEFORE INSTALLING **ADAPTIO**. FAILURE TO DO SO WILL PREVENT THE SOFTWARE FROM WORKING PROPERLY.

1. Close all applications before proceeding.
2. Insert the **adaptio** CD in your computer's CD-ROM drive. The installation process will automatically begin. If not, click START | RUN, and browse to the CD drive, select the "setup.exe" file and execute it.
3. Follow the InstallShield wizard screens.
4. If the Microsoft .NET Framework 1.1 or 3.5 is not already installed, you will need to download .NET 3.5 from Microsoft and install it. This process will take several minutes. When the .NET installation is finished, the PC will be restarted to properly complete the process. When the PC restarts, the InstallShield wizard will continue.
5. When the InstallShield wizard is complete, **adaptio** will be installed as a Microsoft service and will automatically be started.
6. Start the **adaptio** Management Utility by clicking on START | All Programs | I-O Adaptio | Adaptio Configuration.
7. **adaptio** is now running as a fully functional, single session IBM host printing solution in evaluation mode.

Obtain an Active License

When you first install **adaptio** it is installed as a fully functional, single session printing solution that is running in evaluation mode. This means that each page printed will have a "not licensed" watermark printed on it. Use **adaptio** in this evaluation mode to test your printing applications, etc. prior to purchasing active licenses.

To acquire an active license for **adap^{ti}o**, follow the follow steps:

1. Provide your dealer with a purchase order for the desired number of sessions and options.
2. Either provide your dealer with the following information, or browse to I-O's Submit a License Request Web page (<http://www.iocorp.com/legacy/adap^{ti}o-first-license>) and fill in the information yourself:



Request an Adap^{ti}o License

Products

- ▶ PCoIP Zero Clients
- ▶ PCoIP Cards
- ▶ Pro|Edge Thin Clients
- ▶ Host Printing
- ▶ Host Connectivity

LIVE CHAT

Got a question?
Get an instant answer here ▶

TRY BEFORE YOU BUY

Request your trial unit now ▶

FREE TRIAL OFFER

Purchase Info

Dealer Name*

Computer Info

Computer Name*

Computer System*

6 Digit PIN*

Host Info

Host Model*

Host OS Version*

Licenses

IPDS/SCS sessions Canon finishing enabled →

SCS-only sessions

Contact Info

First Name*

Last Name*

Company Name*

Address*

Address 2

City*

State*

Zip*

Country*

Email Address*

Phone Number*

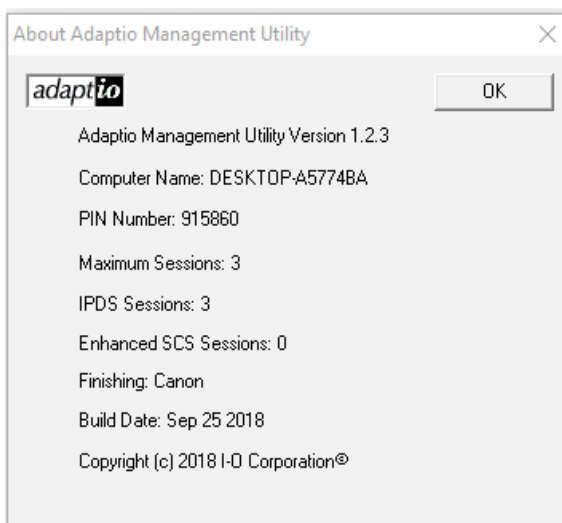
Request adap^{ti}o licenses

Dealer Name

Enter your dealer's name in this field.

Computer Name

This is the name of your computer. This can be found on the **adap^{ti}o** Help About screen. Enter this name exactly as it is shown.



6-Digit Pin:	This is any numeric value that you choose. It will be used as part of the license file as well as to help track licenses for your organization.
Server Type	This is the type of Windows Operating System of the PC server.
IBM Host Model	Enter the primary IBM host here, such as a zSeries, or iSeries and the specific model of the host.
IBM Host OS Version	Enter the operating system version here, such as V7R3.
License Type	Enter the number of desired licensed sessions for IPDS/SCS or if IPDS is not desired select SCS-only. For applications where a Canon imageRunner is being used and Finishing functions are desired for IPDS printing, select Canon finishing enabled.
Contact Information	Enter your contact information here. Complete all fields.

3. Your dealer will submit his purchase order to I-O's order department. I-O will match the dealer purchase order with the license request.
4. An active license file will be sent by e-mail to the person listed in the contact information.
5. Once the license file is received, follow the instructions in this section on applying a license file.

Applying the License File

If this is the first time that a license file is being applied, it will remove the "not licensed" watermark and activate the number of print sessions you purchased.

If this is an expansion license file, additional print sessions will be activated.



NOTE: KEEP A COPY OF THIS LICENSE FILE IN A SAFE PLACE. IT MAY BE NEEDED IN THE FUTURE AS A BACKUP.

To apply a license file, follow these simple steps.

1. Copy the attached license file into a temporary directory.



NOTE: IF THE LICENSE FILE IS NAMED SOMETHING LIKE "ABC-LICENSE.LIC". PLEASE RENAME THE FILE TO "LICENSE.LIC". THE "ABC" IS THE COMPUTER NAME AND HAS BEEN ADDED TO KEEP THIS FILE SEPARATE FROM LICENSE FILES FOR OTHER *ADAPTIO* SERVER INSTALLATIONS. EACH SERVER WILL HAVE ITS OWN UNIQUE LICENSE FILE.

2. If this is an expansion license where you are adding more sessions, as a precaution make backup copies of the "ioss.cfg" and "license.lic" files that are in the *adaptio* installation directory (typically c:\program files (x86)\i-o corporation\adaptio).
3. Start the *adaptio* Management Utility.
4. Ensure all sessions are not actively printing jobs before continuing.



CAUTION: PRINT DATA COULD BE LOST IF THE SESSIONS ARE NOT IDLE. AS AN ALTERNATE, STOPPING ALL SESSIONS WILL ENSURE THAT NO DATA WILL BE LOST.

5. Click Options | Apply New License
6. Use the Browse button to navigate to the license file in its temporary directory.
7. Click OK. The license will be copied into the *adaptio* installation directory. The *adaptio* service will also be stopped and restarted so that the additional sessions will become active.
8. Exit and restart the *adaptio* Management Utility. The List of Sessions will now reflect the licensed number of sessions.

If you encounter problems, or have questions, please refer to the following resources:

- I-O's Knowledge Base at www.iocorp.com/legacy/help
- The User's Guides and Reference Manuals found on the *adaptio* Help Menu
- E-mail I-O's Technical Support Group at support@iocorp.com
- Contact I-O's Technical Support Group by voice at 801-973-6767.

IBM Host Configuration

This chapter provides a brief description of the process to configure the IBM host for use with I-O's **adaptio** Host Print Software. For the complete process, please refer to the **SCS Reference Manual** and the **IPDS Reference Manual**.

For each IBM host printer device, a separate session is setup on **adaptio**. Generally, each session on **adaptio** is sent to a different printer. However, one printer may be setup as the destination printer for more than one session.

Configuration of a session involves the following steps:

- Setup the IBM host
- Setup a session on **adaptio**.
- Customization, if needed, of the session's configuration in **adaptio** to adjust the final printing output.

IPDS Setup

This user's guide contains specific instructions on the setup and use of **adaptio**. Companion manuals contain more detailed instructions on setting up the IBM host and customizing the IPDS printer session.

Please refer to the following manuals and guides to setup IPDS sessions:

- Setting up the IBM System i5, iSeries or AS/400 midrange host are found in the **IPDS Reference Manual**.
- Setting up **adaptio** sessions are found in the *Operation* chapter in this guide.
- Customizing the **adaptio** session are found in the **IPDS Reference Manual**.
- The **adaptio Management Utility Help** manual also provides instructions on the use of **adaptio** and describes the various configuration screens.



NOTE: THESE MANUALS AND GUIDES MAY BE VIEWED ON EITHER THE **ADAPTIO** MANAGEMENT UTILITY'S HELP MENU OR ON THE **ADAPTIO** INSTALLATION CD.

5250 SCS Setup

This user's guide contains specific instructions on the setup and use of **adaptio**. Companion manuals contain more detailed instructions on setting up the IBM host and customizing the SCS printer session.

Please refer to the following manuals and guides to setup SCS sessions:

- Setting up the IBM System i5, iSeries or AS/400 midrange host are found in the **SCS Reference Manual**.
- Setting up **adaptio** sessions are found in the *Operation* chapter in this guide.
- Customizing the **adaptio** session are found in the **SCS Reference Manual**.
- The **adaptio Management Utility Help** manual also provides instructions on the use of **adaptio** and describes the various configuration screens.



NOTE: THESE MANUALS AND GUIDES MAY BE VIEWED ON EITHER THE **ADAPTIO** MANAGEMENT UTILITY'S HELP MENU OR ON THE **ADAPTIO** INSTALLATION CD.

3270 SCS Setup

This user's guide contains specific instructions on the setup and use of **adaptio**. Companion manuals contain more detailed instructions on setting up the IBM host and customizing the SCS printer session.

Use the following manuals and guides to setup SCS sessions:

- Setting up the IBM zSeries mainframe and its associated Telnet 3270e server are found in the **SCS Reference Manual**.
- Setting up **adaptio** sessions are found in the *Operation* chapter in this guide.
- Customizing the **adaptio** session are found in the **SCS Reference Manual**.
- The **adaptio** Management Utility Help manual also provides instructions on the use of **adaptio** and describes the various configuration screens.



NOTE: THESE MANUALS AND GUIDES MAY BE VIEWED ON EITHER THE **ADAPTIO** MANAGEMENT UTILITY'S HELP MENU OR ON THE **ADAPTIO** INSTALLATION CD.

Operation

This chapter covers the process of adding, editing and deleting sessions, starting and stopping the **adaptio** service, diagnostic processes, etc.



NOTE: THE INSTRUCTIONS PRESENTED HEREIN ARE FOR WINDOWS XP PRO. SLIGHT VARIATIONS OCCUR DUE TO THE DIFFERENCES BETWEEN THE VARIOUS WINDOWS OPERATING SYSTEM VERSIONS.



TIP: DETAILED INSTRUCTIONS FOR SOME OF THE PROCESSES DESCRIBED HERE MAY BE FOUND IN THREE COMPANION DOCUMENTS, THE **SCS REFERENCE MANUAL**, THE **IPDS REFERENCE MANUAL**, OR THE **ADAPTIO MANAGEMENT UTILITY HELP**. THEY CAN BE VIEWED FROM THE **ADAPTIO** MANAGEMENT UTILITY HELP MENU, OR ON THE ADAPTIO INSTALLATION CD.

Adding an IPDS Session

To add a new session:

1. Start the **adaptio** Management Utility.
2. Click Options | Add IPDS Session.
3. Fill in the data required on the IPDS session description screen.
4. If additional customization of the session is required, click on the Advanced Setup Options button. Refer to the **adaptio Help document** and **IPDS Reference Manual** for a description of the information required in each field.
5. Click the OK button the IPDS session description screen to save the configuration.
6. On the List of Sessions screen, highlight the newly added session. Then start the session using one of three methods: click Options | Start Session; right click the session and take the Start option, or simply click the Start button on the tool bar.
7. After a few seconds the Status column will show that the session has started.
8. The final step is to create a printer device on the IBM host. Refer to the **IPDS Reference Manual**.

Adding a SCS Session

To add a new session:

1. Start the **adaptio** Management Utility.
2. Click Options | Add SCS Session.
3. Fill in the data required on the SCS session description screen.
4. If additional customization of the session is required, click on either of the two tabs (AS/400 SCS Printing or Mainframe SCS/DSC Printing tabs) and/or Telnet Restart buttons. Refer to the **adaptio Help document** and **SCS Reference Manual** for a description of the information required in each field.
5. Click the OK button the SCS session description screen to save the configuration.
6. On the List of Sessions screen, highlight the newly added session. Then start the session using one of three methods: click Options | Start Session; right click the session and take the Start option, or simply click the Start button on the tool bar.
7. After a few seconds the Status column will show that the session has started.

8. If the IBM host is a System i5, iSeries, or AS/400, the host will automatically create a printer device and start the writer. If the IBM host is a zSeries mainframe, the system administrator must create the printer device, writer, etc. Refer to the **SCS Reference Manual**.

Adding an Enhanced SCS Session

adaptio can “enhance” SCS print jobs by adding formatted text, barcodes, logos, images and so on to create checks, invoices, statements, estimates and other graphically oriented business documents. These professional, graphics-rich documents (Enhanced SCS documents) are automatically created by **adaptio** without modifying host applications or data streams. **Adaptio** accomplishes this by using templates that are triggered by some unique value on the SCS print job. Templates are created using the optional FormPort Designer software. User’s may either purchase the FormPort Designer software and create the templates themselves, or contract with I-O’s Forms-on-Demand professional design service.

The process of setting up Enhanced SCS printing is as follows:

- Capture a sample of the SCS print job using the **adaptio** data capture feature. Set the data type to ASCII.
- FormPort Designer is used to create a form template for the print job. This is done by importing the ASCII file and mapping the data into the template.
- Copy the form template into the **adaptio** installation directory (typically this is c:\Program Files\I-O Corporation\Adaptio).
- Create an Enhanced SCS print session.
- Setup the trigger information for the form template.
- Then, when a SCS print job is sent to an Enhanced SCS session, **adaptio** monitors each job looking for a trigger. When a trigger is found, the appropriate template is applied to the print job.

To add a new session:

1. Start the **adaptio** Management Utility.
2. Highlight an available session.
3. Click Options | Add Enhanced SCS Session.
4. Fill in the data required on the SCS session description screen.
5. Click on the Form Definitions Tab.
6. For each template that the **adaptio** will be using to “enhance” the SCS print job, enter the trigger value, the line and column on which the trigger is located, and the template name. Click the Add button. If a mistake was made in defining the template values, highlight the entry in the List of Templates section and reenter the values again. Refer to the **adaptio Help document** for detailed information on each of the values to be entered.



NOTE: TYPICALLY, YOU WOULD ONLY SEND TO THE ENHANCED SCS PRINT SESSION THOSE IBM HOST JOBS THAT YOU HAVE DEFINED A TEMPLATE FOR AND WANT **ADAPTIO** TO ENHANCE THE PRINTED OUTPUT. HOWEVER, IF YOU DO WANT TO SEND OTHER SCS PRINT JOBS TO AN ENHANCED SCS PRINT SESSION, THEY WILL PRINT JUST AS IF THEY HAD BEEN SENT TO A NORMAL SCS PRINT SESSION. IN THESE CASES, YOU MAY WANT TO CUSTOMIZE HOW THESE JOBS ARE HANDLED BY CHANGING THE CONFIGURATION SETTINGS ON THE AS/400 SCS PRINTING OR MAINFRAME SCS/DSC PRINTING TABS. THERE WILL BE A SMALL DELAY IN THE PRINTING AS THE ENTIRE PRINT JOB WILL BE FIRST SPOOLED WHILE **ADAPTIO** IS FILTERING THE JOB TO DETERMINE IF A TRIGGER EXISTS. ONCE THE FILTERING PROCESS IS COMPLETE, THEN THE JOB WILL BE RELEASED AND SENT TO THE DESTINATION PRINTER.

7. If any Telnet connection values need to be made, click on either of the Telnet Restart buttons. Refer to the ***adaptio* Help document** and **SCS Reference Manual** for a description of the information required in each field.
8. Click the OK button the SCS session description screen to save the configuration.
9. On the List of Sessions screen, highlight the newly added session. Then start the session using one of three methods: click Options | Start Session; right click the session and take the Start option, or simply click the Start button on the tool bar.
10. After a few seconds the Status column will show that the session has started.
11. If the IBM host is a System i5, iSeries, or AS/400, the host will automatically create a printer device and start the writer. If the IBM host is a zSeries mainframe, the system administrator must create the printer device, writer, etc. Refer to the **SCS Reference Manual**.

Edit a Session

To edit a session:

1. Start the ***adaptio*** Management Utility.
2. Highlight an available session.
3. Then either click the Edit button on the tool bar, right click and take the Edit option, or click Options | Edit Session. You may also double click on the session in the List of Sessions.
4. The same screens that are used in adding a session are presented. Make the appropriate changes.
5. Click the OK button to save the configuration.
6. Restart the session.



NOTE: SESSIONS MUST BE STOPPED TO BE EDITED. IF THE SESSION IS NOT STOPPED, YOU WILL BE GIVEN THE OPTION TO STOP THE SESSION OR SIMPLY VIEW THE CONFIGURATION OF THE SESSION.

Delete a Session

To delete a session:

1. Start the ***adaptio*** Management Utility.
2. Highlight an available session.
3. Stop the session.
4. Then either click the Delete button on the tool bar, right click and take the Delete option, or click Options | Delete Session.



NOTE: SESSIONS MUST BE STOPPED TO BE DELETED. IF THE SESSION IS NOT STOPPED, YOU WILL BE GIVEN THE OPTION TO STOP THE SESSION.

Starting and Stopping the adaptio Service

I-O's ***adaptio*** is comprised of two parts: the software that converts IPDS and SCS data streams, and the ***adaptio*** Management Utility.

The service component is started automatically upon installation of the software. Each time the server is powered down, the service stops all sessions and then Windows stops the service itself. Each time the server is powered up, Windows starts the service and the service starts then starts the sessions.

To stop or start the service manually:

1. Navigate to the Control Panel.
2. Take the Administrative Tools Option.
3. Take the Services option.
4. Locate and highlight the I-O **adaptio** Print Server entry.
5. Take the appropriate action (stop or start).

Refresh the List of Sessions Screen

The List of Sessions screen in the **adaptio** Management Utility will automatically be updated every few seconds or you can refresh the list at any time by clicking on the Refresh button on the tool bar.

You can change the automatic refresh time by doing the following:

1. Click Options | Auto Refresh.
2. Enter the desired delay time for the auto refresh to occur.



NOTE: IN VERY HEAVY PRINTING ENVIRONMENTS, TURNING OFF THE AUTO REFRESH FEATURE WILL REDUCE SOME OVERHEAD LOAD ALLOWING THE SERVER'S CPU MORE TIME RUNNING MISSION CRITICAL APPLICATIONS SUCH AS THE ACTUAL IPDS OR SCS CONVERSION APPLICATION.

Applying a New License

I-O's **adaptio** Host Print Software is freely available in a fully functional single-session demo version. Licensing **adaptio** will remove the "not licensed" watermark and activate up to 512 printing sessions.

To apply a license file:

1. Obtain a valid license file from I-O Corporation.
2. Copy the license file into a temporary directory.
3. Start the **adaptio** Management Utility.
4. Ensure all sessions are not actively printing jobs before continuing.



CAUTION: PRINT DATA COULD BE LOST IF THE SESSIONS ARE NOT IDLE. AS AN ALTERNATE, STOPPING ALL SESSIONS WILL ENSURE THAT NO DATA WILL BE LOST.

5. Click Options | Apply New License
6. Use the Browse button to navigate to the license file in its temporary directory.
7. Click OK. The license will be copied into the **adaptio** installation directory.
8. The **adaptio** service will be stopped and restarted. Print jobs will no longer have the "not licensed" watermark on them.
9. Exit and restart the **adaptio** Management Utility. The List of Sessions will now reflect the licensed number of sessions.

Advanced Configuration

I-O's **adaptio** can be configured to change the way IBM host print jobs are printed. Options include the ability to set the final print quality (draft or near-letter quality), the characters per inch used, input tray mapping, edge-to-edge printing, font substitutions, etc.

Advanced configuration can be accomplished through two different methods:

- The **adaptio** Management Utility.
- I-O's Host Download commands which embeds customization commands within the data stream coming from the IBM host.



TIP: THE **ADAPTIO** MANAGEMENT UTILITY IS THE PRIMARY METHOD OF CUSTOMIZING THE SCS AND IPDS CONFIGURATION.

The **adaptio Management Utility Help** document describes each configuration screen and the values entered there. A detailed description of each customization option is found in the SCS and IPDS Reference Manuals.

The various Host Download options and their specific use are defined in the **SCS Reference Manual** and the **IPDS Reference Manual**.

Supported IPDS Customization Options

I-O's **adaptio** supports all IPDS customization functions outlined in the **IPDS Reference Manual** except for the following:

- Host Download Command 98 – Restore Defaults / Print Self-Test is not supported.
- Host Download Command 99 – Save Current Settings is not supported.

Supported SCS Customization Options

I-O's **adaptio** supports all SCS customization functions outlined in the **SCS Reference Manual** except for the following:

- Host Download Command 98 – Restore Defaults is not supported.
- Host Download Command 99 – Save Current Settings is not supported.

Enhanced SCS Printing

In addition to converting SCS print jobs for printing on non-IBM printers, **adaptio** can “enhance” SCS print jobs by adding formatted text, barcodes, logos, images and so on to create checks, invoices, statements, estimates and other graphically oriented business documents. These professional, graphics-rich documents (Enhanced SCS documents) are automatically created by **adaptio** without modifying host applications or data streams. **Adaptio** accomplishes this by using templates that are triggered by some unique value on the SCS print job. Templates are created using the optional FormPort Designer software or by contracting with I-O's Forms-on-Demand professional design service.

Normal SCS jobs targeted for laser printer output can be sent to an Enhanced SCS session and will print normally. They will only be reformatted when a template and form definition has been created for them. In these cases, the default configuration values on either the AS/400 SCS Printing or Mainframe SCS/DSC Printing tabs may be customized.



NOTE: THERE WILL BE A SLIGHT DELAY IN THE ACTUAL PRINTING OF JOBS SENT TO AN ENHANCED SCS PRINT SESSION AS THE JOBS WILL BE SPOOLED WHILE **ADAPTIO** PARSES THROUGH THE JOB LOOKING FOR A VALID TRIGGER. IF NO TRIGGER IS FOUND, THE JOB WILL BE SENT ON TO THE DESTINATION PRINTER. IF A TRIGGER IS FOUND, **ADAPTIO** WILL APPLY THE TEMPLATE AND THEN SEND THE PRINT JOB ON TO THE DESTINATION PRINTER.

Digital Printer Finishing Features

Digital printers offer more functionality than line or laser printers in the form of "finishing features". Finishing features includes stapling, stitching, folding, inserting, punching and so on. Document management features (such as queuing, multiple copies, etc.) are also considered to be part of the finishing feature set.

I-O's **adaptio** supports all finishing functions outlined in the **IPDS Reference Manual** for IPDS printing.

Troubleshooting

This chapter contains solutions for problems you may encounter while using the I-O's **adaptio** Host Printing Software. If a problem persists even after you implement the solutions provided here, or if you encounter a problem not listed here, please refer to the following resources:

- The I-O Knowledge Base at www.iocorp.com/legacy/help.
- The **adaptio** Help document
- The SCS Reference Manual
- The IPDS Reference Manual
- Your I-O Dealer
- I-O's Technical Support Group at 801-973-6767 or by email at support@iocorp.com.



NOTE: THE MANUALS AND GUIDES MAY BE VIEWED ON THE **ADAPTIO** MANAGEMENT UTILITY'S HELP MENU

Session Status Indicators

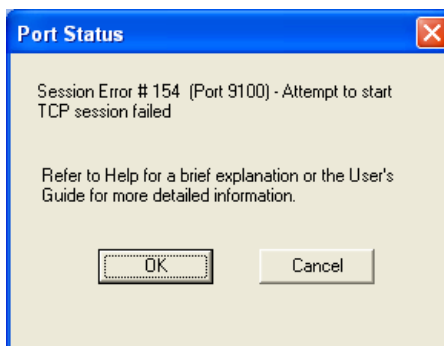
The **adaptio** Management Utility displays several items of information about each printer session. The column entitled "Status" shows the current status of each session.

Session	Description	Type	Host/Port	Destination Printer	Status
001	IPDSTEST1	IPDS	Port 5001	010.001.001.236	Attention
002	IPDStest2	IPDS	Port 5002	010.001.001.236	Attention
003	SCSTEST1	SCS	010.001.001.253	010.001.001.236	Attention
004	GORDON	SCS	010.001.001.253	010.001.001.233	Attention
005	Available				
006	Available				

The Status column will report the following:

- Attention – There is a condition that requires attention. Select the Session Status Menu
- Busy – The session is currently printing a job.
- Idle – There is no printing activity.
- Printing – The session is currently printing a job.
- Starting – The session is starting (connects to the host and to the printer).
- Stopped – The session is stopped. No printing can occur.
- Stopping – The session is going through the shut down process (notifies the host, closes the connection to the host, closes the connection to the printer).

When an Attention indicator is shown in the Status column, click on the Session Status Menu.



The Session Error Message box will display information about the error condition. Refer to the **adaptio Help document** for detailed information about the error.

Capturing a Data File

I-O's **adaptio** Host Printing Software includes a very useful tool that will capture the actual IBM IPDS or SCS data stream being received by **adaptio**. This captured data stream is saved in a file on the server which can then be sent to I-O's Technical Support Group where it will be used to recreate the printing problem.

To run the Data Capture utility:

1. Start the **adaptio** Management Utility.
2. Highlight the session you want to capture the data stream.
3. Click Options | Data Capture
4. If capturing a file for using as a basis to create a template for an Enhanced SCS print session, select ASCII. Otherwise leave the data type as "Default"
5. Enter the file name to save the captured data stream in.
6. Click start.
7. At the IBM host, stop and restart the print writer.
8. Send the print job from the IBM host.
9. When the job is complete, stop the Data Capture process.
10. Send the file along with very detailed description of the printing problem to I-O's Technical Group.



TIP: IT IS OFTEN VERY HELPFUL IN TROUBLESHOOTING PRINTING PROBLEMS TO SEND NOT ONLY THE DATA CAPTURE FILE, BUT ALSO THE **ADAPTIO** CONFIGURATION FILE SENT TO I-O'S TECHNICAL SUPPORT GROUP. THE CONFIGURATION FILE IS LOCATED IN THE DIRECTORY WHERE **ADAPTIO** IS INSTALLED (DEFAULT IS C:\PROGRAM FILES\I-O CORPORATION\ADAPTIO). IT IS CALLED "IOSS.CFG".

Logging

I-O's **adaptio** has two logging functions - System level events and Application level events.

System level events are viewed in the Windows Event Viewer which is accessible from the Control Panel's Administrative Tools option.

Application level events are more detail events that are written into a ".log" file that is stored in the directory where **adaptio** is installed (default is c:\program files (x86)\i-o corporation\adaptio).

This diagnostic function should only be turned on when instructed by I-O's Technical Support group.

To turn on logging:

1. Start the **adaptio** Management Utility.
2. Highlight the desired session.
3. Click Options | Logging.
4. Select either to log a single session or all sessions.
5. When the logging function has been stopped, send the log file along with configuration and possibly data captured files to I-O's Technical Support group. Include a complete description of the problem.

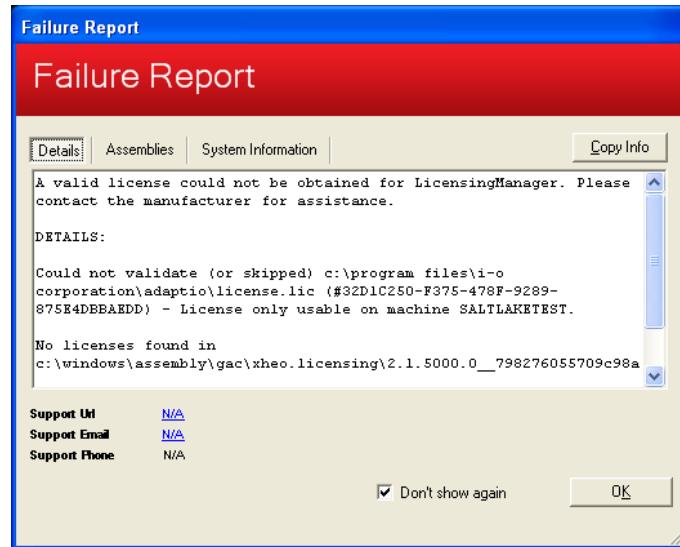
Errors

The following is a brief list of problems that may occur. Please refer to I-O's Knowledge Base, the **SCS Reference Manual**, the **IPDS Reference Manual**, and the **adaptio Help** document for a more complete listing of errors, troubleshooting hints and FAQ's.

Problem	Solution
<ul style="list-style-type: none"> • The installation process tells me I need Microsoft's .NET Framework 	<ul style="list-style-type: none"> ✓ Microsoft's .NET Framework 1.1 or 3.5 is required for adaptio to operate. If you receive an error code 1920, you will need to go to Microsoft's web site and download the .NET Framework 3.5.
<ul style="list-style-type: none"> • Why are my documents printing with a "not licensed" watermark or text line on them? 	<ul style="list-style-type: none"> ✓ adaptio is running the demo version. This is a fully functional version but is limited to one session only. When you license the product, the watermark is removed.
<ul style="list-style-type: none"> • What firewall settings are required? 	<ul style="list-style-type: none"> ✓ Ping should be open. ✓ Ports 5001 through 5512 must be open to receive the IPDS data from the IBM host. ✓ Port 9100 may also need to be opened.
<ul style="list-style-type: none"> • Print jobs sent to a shared printer stay in the spool on the adaptio server PC. 	<ul style="list-style-type: none"> ✓ If the target printer is a "shared" printer on another PC, Windows requires that the adaptio service be logged in as an administrator. This is done on the adaptio server PC by navigating to Start Control Panel Administrative Tools Services. Select the I-O Adaptio Print Server entry, right click, select Properties. Select the Log On tab, click on the This account radio button. Then enter the administrator's name and password.

- Failure Report screen appears.

✓ If a Failure Report screen is displayed, it indicates that the license file contains information that does not match the server PC that **adaptio** is installed on. This may also be due to reinstalling **adaptio** on a different PC than the license was issued for. A new license file will be required. Please contact technical support.



- My Enhanced SCS print job does not trigger the template
- ✓ Log files will be created when ***adaptio*** is not able to successfully apply a trigger to a SCS print job. The log files can be read by a text editor such as Notepad. The logged data is generally self explanatory. You may need to recompile the template in FormPort Designer or redefine the trigger information on the Form Definitions tab in the ***adaptio*** Management Utility. Refer to the ***adaptio*** Help document or the **FormPort Designer Manual**.
 - ✓ For additional troubleshooting help when only the SCS data is printed and no template is applied, contact I-O's Technical Support group. You will need to provide the following files - they will be found in the ***adaptio*** installation directory (typically this is c:\Program Files\I-O Corporation\Adaptio):
 - The print files. They will have a "dat" file extension. They will be named something like 25SCS123 where the 25 represents the print session number and the 123 represents a unique print job number.
 - The error log files. They will have a "log" file extension.
 - The template files. They will have a "fpf" file extension.
 - The ***adaptio*** and form definitions configuration files. They will have a "cfg" file extension.
 - In the root directory (Drive C:\) there is another file called "adaptio_FP.log" that is required. This file must be saved immediately after the print job is run that is having problems. Because it is recreated each time an Enhanced SCS print job is printed from any Enhanced SCS print session, make sure the file is saved before any other jobs are run.

Moving adaptio to a Different Server

To move **adaptio** to a different server, follow these simple steps.

1. Install **adaptio** on the new server.
2. Contact I-O's Technical Support group to obtain a new license file for the new server.
3. Download the new license file to a temporary directory on the new server.
4. On the old server, stop all **adaptio** printer sessions, and stop the **adaptio** service.
5. Save the following files from **adaptio** installation directory on the old server:
 - The "ioss.cfg" – this is the configuration file for the sessions.
 - Any other files with the "cfg" file extension. There may be other files like "forms.cfg" which is the configuration file for the Enhanced SCS forms.
 - All files the "fpf" file extension. If you do not have the Enhanced SCS option, there will not be any "fpf" files.
6. Copy the saved "cfg" and "fpf" files to the **adaptio** installation directory on the new server.
7. On the new server, start the **adaptio** Management Utility.
8. Apply the new license file. Click Options | Apply New License. Browse to temporary directory where the license file resides. Click OK. The license will be installed and the **adaptio** service will be restarted.
9. Exit and restart the **adaptio** Management Utility.
10. The List of Sessions should match that of the old server.
11. On the IBM host, change the IP address of each IPDS printer (that **adaptio** serves) to the new server's IP address.



TIP: AN ALTERNATIVE IS TO GIVE THE NEW SERVER THE SAME IP ADDRESS AS THE OLD SERVER. THIS ELIMINATES HAVING TO CHANGE THE IP ADDRESS IN EACH IPDS PRINTER DEFINITION ON THE IBM HOST.

12. Send a test job to at least one **adaptio** printer session to confirm the IBM host is now using the new server.
13. On the old server, uninstall the **adaptio** application.
14. Delete all copies of the license file(s) for the old server.

If you encounter problems, or have questions, please refer to the following resources:

- I-O's Knowledge Base at www.iocorp.com/legacy/help
- The User's Guides and Reference Manuals found on the adaptio Help Menu
- E-mail I-O's Technical Support Group at support@iocorp.com
- Contact I-O's Technical Support Group by voice at 801-973-6767.

Note:

As with many software applications, Adaptio requires a yearly Maintenance agreement which provides technical support and license changes when moving to a new server. The maintenance fee is based on the number of printer sessions you have. Contact your dealer for maintenance updates.

End User License

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Should you have any questions regarding this agreement, or if you wish to contact I-O Corporation, please write I-O Corporation, 775 West Concord Park Drive, Bluffdale, Utah 84065 or call (801) 973-6767.