

## iSeries Actions

Action	Command	Notes	Associated problem
		IPL = Initial Program Load	
Device description	WRKDEVD *ALL	Work with device description	
Run DAY1, SYSDAT, & SYSDATE	WRKJOBSCDE	Go into job scheduler and rerun DAY1, SYSDAT, and SYSDATE (enter a 10 to run immediately)	If you get an error message for SYSDAT, SYSDAT2, or DAY1CL you can cancel them (take a C for the message) then rerun DAY1, SYSDAT, and SYSDATE
Start GUI License Manager	SEALMS/STRLMSTCP	Start GUI License Manager from command line	After starting SANDIS, user gets error about license manager not being started. Users do not get GUI screen in SANDIS.
Start Print Writer	STRPRTWTR	Starts the writer for a remote out queue	
Start Remote Writer	STRRMTWTR	Start remote writers	When no writer shows up when a WRKOUTQ is entered, run this command to start writer for the queue.
Tape backup schedule	WRKJOBSCDE	Backups are QEZBKSxxx (xxx=day)	
Vary on command	WRKCFGSTS *DEV	For devices	
Work with active jobs	WRKACTJOB		
Work with output queue	WRKOUTQ	Checks status of output queues	
Work with print writers	WRKWTR *ALL	Looks at (remote) writers	
Work with printers	WRKWTR	Looks at printers	
Work with spool file	WRKSPLF	This will display the user's spool file.	
Work with user profiles	WRKUSRPRF *ALL	Modify user accounts. Replace *all with user name or use wild card, i.e.: rcdb*	

# i5 Security

## **System Security Level 40:**

- User must sign on with valid ID and password.
- Users have access to objects only when the objects are designated as usable by the individual user or by \*PUBLIC (anyone).
- When restoring files the system defaults to “Allow Object Differences” set to No. This will not allow an older file to overwrite the same file on the system if the system file has been changed since the old one was backed up. The “Allow Object Differences” parameter can be manually set to Yes if you want to allow the overwrite.

## **User Passwords:**

Suggested password settings are:

Minimum of 6 characters max of 10.

Allowable characters are A-Z, 0-9, and characters dollar (\$), at (@), number (#), and underscore (\_).

Characters can not be used consecutively.

Passwords Expire after 90 days.

Users can not reuse any of their previous 12 passwords.

## **Common System Accounts:** (these might be used in the individual user profiles under “User class”)

### QSECOFR - Security Officer

Can do anything on the system except service functions (Service functions are generally given only to very experienced users or your IBM vendor).

This should only be given to one or two staff in a company.

### QSYSOPR - System Operator

Authority to control jobs, print files, and do backup and restore functions.

### QUSER – User

System supplied user profile.

Everyone outside of the computer department should be a User.

**NOTE: For staff needing access to specific system functions use the following as a guideline. Grant only the minimum access required by the user.**

## **Special Authorities**

### \*NONE

No special authorities are assigned to the user.

### \*ALLOBJ

The user can do anything to any object and overrides any public or private authorities on the system.

This should be reserved for the SECOFR, the MIS Manager, and the Computer Operator only.

**\*AUDIT**

The user can change system values that control Auditing.  
This should be reserved for the MIS Manager and the Computer Operator only.

**\*IOSYSCFG**

The user can change system configurations for network, communications device, controllers, lines, TCP/IP server.  
This should be reserved for the MIS Manager and the Computer Operator only.

**\*JOBCTL**

User can manage jobs running on the system including those belonging to other users or to the system.

These are typical authorities granted to the computer/system operator.

The user can:

- Display, hold, release, or cancel jobs.
- Change output to other queues.
- Change job priorities.
- Start/stop printers.
- Start/stop entire subsystems.
- Load the operating system.
- Etc.

**\*SAVSYS**

The user can perform backup and restore operations on all objects even if the user does not have authority to the object. User can save, restore, or free storage for all objects.

This is typically granted to the computer/system operator.

**\*SECADM**

User can create and change user profiles. Note. This can only be granted by a user who already has both \*SECADM and \*ALLOBJ authority.

This should be reserved for staff that must create and maintain user profiles.

**\*SERVICE**

User can run service functions on the i5 like s System Service Tools.

This should be reserved for IT staff that are very knowledgeable about the system. May be reserved exclusively for IBM Business Partner or DDS Technical staff.

**\*SPLCTL**

The user can manage spool files, display, release, print, move, and cancel spooled output.

The user can access anyone's spooled output so should not be granted unless necessary.

## User Class

This is used to quickly specify the special authorities for a user. Additional authorities can still be granted in the Special Authorities section of the profile

<b>Special Authorities Granted to "User Class" for System Security Level 40</b>							
User Class	*ALLOBJ	*AUDIT	*SECADM	*SAVSYS	*JOBCTL	*SPLCTL	*SERVICE
*SECOFR	X	X	X	X	X	X	X
*SECADM			X	X	X		
*PGMR				X	X		
*SYSOPR				X	X		
*USER	No Special Authorities for "User"						

# Settings for i5 Accounts

User profile	ALDBDAVE	
User password	*NONE	Character value
Set password to expired	<input type="radio"/> *SAME <input checked="" type="radio"/> *NO <input type="radio"/> *YES	
Status	<input type="radio"/> *SAME <input checked="" type="radio"/> *ENABLED <input type="radio"/> *DISABLED	
User class	*SECOFR	...
Assistance level	*INTERMED	...
Current library	*CRTDFT	Name
Initial program to call	JSTARTCL1	Name
Library	SAND400	Name
Initial menu	MNALA1	Name
Library	*LIBL	Name
Limit capabilities	<input type="radio"/> *SAME <input type="radio"/> *NO <input checked="" type="radio"/> *PARTIAL <input type="radio"/> *YES	
Text 'description'	'Dave Waling'	

## User Profile:

User's Account name.

## User password:

Suggested password settings are:

Minimum of 6 characters max of 10.

Allowable characters are A-Z, 0-9, and characters dollar (\$), at (@), number (#), and underscore (\_).

Characters can not be used consecutively.

Passwords Expire after 90 days.

Users can not reuse any of their previous 12 passwords.

## Set password to expired:

No – Password is currently active and can be used.

Yes – Password has expired and needs to be changed.

You can force a user to create a new password next time they log on by setting this to Yes.

## Status:

Enabled – Account is enabled and useable.

Disabled – Account has been locked (generally from too many incorrect password attempts).

You can manually disable an account by setting this to Disabled.

## User class:

This is used to quickly grant special authorities for a user. Individually authorities can be granted using the Special Authorities section of the profile.

Special Authorities Granted to "User Class" for System Security Level 40							
User Class	*ALLOBJ	*AUDIT	*SECADM	*SAVSYS	*JOBCTL	*SPLCTL	*SERVICE
*SECOFR	X	X	X	X	X	X	X
*SECADM			X	X	X		
*PGMR				X	X		
*SYSOPR				X	X		
*USER	No Special Authorities for "User"						

## Assistance level:

\*BASIC – This is best for new or occasional users. The Operational Assistant is used to provide step-by-step help.

\*INTERMEDIATE – This is the default value and provides complete information. All options are available and displayed.

\*ADVANCED – This is only for very experienced users and probably not suitable for Regional Center Staff. All options are available but some options might not be displayed in order to make room for more information. Option keys and Function keys are not displayed.

## Initial program to call:

Use this to "call" (run) a program when the user logs on.

Some regional centers use this to start a program called JSATARTCL1 in the SAND400 library.

## Initial menu:

Use this to specify the menu the user will have when they log on.

## Limit Capabilities:

Use this to restrict a user's ability to execute commands from a command line.

\*NO – Users can run commands and can change their menu, program, and library values. This setting is not recommended for most staff.

\*PARTIAL - Users can run commands and can change their menu but not the program or library values.

Users that need to use command line commands should have this setting.

\*YES – Users can not run commands nor change their menu, program or library values. Staff should have this setting unless they need to use command line commands.

## Text 'description':

This is the display name and should include the user's name and pertinent information.

## Page 2 of the Profile - Additional Parameters:

To access page 2, press the Advanced Key in the window or the F10 Key. Then press the down arrow on the screen or page down on the keyboard.

Most of these fields will be left at the default values displayed in the image below.

Additional Parameters

Special authority: \*NONE

Special environment:  \*SAME  \*SYSVAL  \*NONE  \*S36

Display sign-on information:  \*SAME  \*NO  \*YES  \*SYSVAL

Password expiration interval: \*SYSVAL 1-366

Local password management:  \*SAME  \*YES  \*NO

Limit device sessions:  \*SAME  \*NO  \*YES  \*SYSVAL

Keyboard buffering: \*SYSVAL

Maximum allowed storage: \*NOMAX Kilobytes

Highest schedule priority: 3 0-9

Job description: UFSNTV Name

Library: QGPL Name

Group profile: UFSUSER Name

### Special authority:

Special Authority should be set to \*NONE.

If access to specific system functions is required for a particular user they can be granted Special Authority by removing \*NONE from Special authority section then specifying other options. Before setting anything other than \*NONE see the information in “Special Authorities” and “User Class” at the beginning of this document. Only grant the minimum authority required for their job.

To add more than two special authorities, click the “+” sign next to the last special authority.

### Page 3 of the Profile:

The Message queue will be assigned automatically.

Print Device, Output Queue and Library should be configured according to Regional Center procedures for printers.

All other fields will be left at the default values displayed below.

Owner	<input type="radio"/> *SAME <input type="radio"/> *USRPRF <input checked="" type="radio"/> *GRPPRF
Group authority	*NONE ...
Group authority type	<input checked="" type="radio"/> *PRIVATE <input type="radio"/> *PGP <input type="radio"/> *SAME
Supplemental groups	*NONE Name + ...
Accounting code	'UFS'
Document password	*SAME Name
Message queue	ALAAALIS Name
Library	QUSRSYS Name
Delivery	*NOTIFY ...
Severity code filter	0 0-99
Print device	*WRKSTN Name
Output queue	NETPRT5 Name
Library	QUSRSYS Name
Attention program	SANATTN4 Name
Library	*LIBL Name

### Page 4 of the Profile:

The User ID number will be automatically assigned by the system and should not be changed.

All other fields will be left at the default values displayed below.

Sort sequence	*SYSVAL ... Name
Library	... Name
Language ID	*SYSVAL ...
Country or region ID	*SYSVAL ...
Coded character set ID	*SYSVAL ...
Character identifier control	*SYSVAL ...
Locale job attributes	*SYSVAL ... + ...
Locale	*SAME
User options	*NONE ... + ...
User ID number	2491 1-4294967294
Group ID number	*NONE 1-4294967294
Home directory	*SAME



## Page 5 of the Profile:

All fields will be left at the default values displayed below.

EIM association:	
EIM identifier	<input type="text" value="*NOCHG"/>
Association type	<input type="text" value=""/> ...
Association action	<input type="radio"/> *REPLACE <input type="radio"/> *ADD <input type="radio"/> *REMOVE
Create EIM identifier	<input type="radio"/> *NOCRTEIMID <input type="radio"/> *CRTEIMID

# SANDIS Security

SANDIS security configurations are additional security measures which are built into and apply to SANDIS and UFS applications only.

## User accounts

User account names are created using the following guidelines.

First two characters = Regional Center (i.e. "AL" for Alta)

Third and fourth characters = Unit Code (M0, Z0, J0, etc.)

Fifth character = Unique identifier for each user in a particular unit (0, 1, 2, 3 .....A, B, C, etc.)

Remaining characters = First four characters of users first name (If under four, start using last name)

## SANDIS Table of Codes

The SANDIS Table of Codes should be used to grant appropriate security within the SANDIS/UFS system.

## Personal Codes

Menu – SANDIS Processing

Menu – Maintain Data Base Tables

Menu – Update Personal Codes

Code	Description	Email address	
<input type="text"/>	<input type="text"/>	<input type="text"/>	
<b>Field X</b>	<b>Field Y</b>	<b>Flags- A B C D</b>	<b>GL#</b>
<input type="text"/>	<input type="text"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="text"/>
<b>Phone[for CASM]</b>	<b>Secretary</b>	<b>Status</b>	 
<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**Code:** Unit Code and user unique identifier (M06, Z04, J0B, etc.)

**Note:** Unit codes "DB" and "AA" have special meaning in SANDIS.

**DB** (SANDIS Data Base unit) = Access or Delete all SANDIS records. This includes non-consumer and non-resource records.

**AA** (Administration unit) = Access to all SANDIS records active and closed. This includes non-consumer and non-resource records. Can not delete records.

**Description:** User's name and any descriptive text.

**Email address:** User's full email address (*name@altaregional.org*).

**Field X:** SC = Service Coordinator  
PM = Supervisor  
Blank = User can't write ID notes

**Flag A:** A = All SANDIS records active and closed (including non consumer and resource records).  
 B = All client and resource records  
 C = All client records only  
 I = Inter-regional center transfers  
 R = All resource records only  
 N = Non Regional Center Caseloads (like genetics)

**Flag B:** T = Allows global (cross unit) Title-19 access

**Flag C:** C = Caseload carrier (Service Coordinator) allows user to enter and update consumer records

**Flag D:** Y = Title 19 qualifier (can get credit for entering Title 19 units)

**Flag GL#:** Not used

**Guideline for setting flags:**

Supervisor: PM T C Y

Service Coordinators: SC T C Y

Service Coordinators (no title 19): SC T C \_

Secretaries who enter notes for Service Coordinators: SC T C \_

**Phone:** (Informational only) The user's phone number.

**Secretary:** (Informational only) The user's secretary's SANDIS code.

**Table of Codes**

Menu – SANDIS Processing

Menu – Maintain Data Base Tables

Menu – Enter/Update Table of Codes

Enter "UNIT" in the "Field" field and press Enter.

Code		Description	Status
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Field X	Field Y	Flags-A B C D	GL#
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Phone[for CASM]	Secretary		
<input type="text"/>	<input type="text"/>		

**Code:** Two character Unit Code (M0, Z0, J0, etc.)

**Description:** Unit name and any descriptive text.

**Status:** Not used

**Field X:** Not used

**Field Y:** Not used

**Flag A:** Not used

**Flag B:** Not used

**Flag C:** H = Allows this code to be displayed in the Help screens

**Flag D:** Not used

**Flag GL#:** Not used

## Add Library to User's Library Path

```
Selection or command  
===> strpdm
```

Take Option 2 Work with objects

```
Programming Development Manager (PDM)  
  
Select one of the following:  
  
1. Work with libraries  
2. Work with objects  
3. Work with members  
  
9. Work with user-defined options
```

Press Enter

```
Specify Objects to Work With  
  
Type choices, press Enter.  
  
Library . . . . . QGPL *CURLIB, name  
  
Object:  
Name . . . . . *ALL *ALL, name, *generic*  
Type . . . . . *ALL *ALL, *type  
Attribute . . . . . *ALL *ALL, attribute, *generic*,  
*BLANK
```

For Position to enter u

For Position to type enter \*jobd (job description)

```
Work with Objects Using PDM HQR400  
  
Library . . . . . QGPL Position to . . . . . u  
Position to type . . . . . *jobd
```

Press Enter

On UFSNTV take option 2 (change)

Work with Objects Using PDM					HQR400
Library . . . . .	<u>QGPL</u>	Position to . . . . .	_____		
		Position to type . . . . .	_____		
Type options, press Enter.					
2=Change	3=Copy	4>Delete	5=Display	7=Rename	
8=Display description		9=Save	10=Restore	11=Move ...	
Opt	Object	Type	Attribute	Text	
<u>2</u>	UFSNTV	*JOB		UFS Job Description	
__	UFSNTVO	*JOB		UFS Native Operator Job Description	
__	QBATCH	*CLS		Batch Subsystem Class	
__	QCASERVR	*CLS		Client Access Server Class	
__	QDIALOCAL	*CLS		Class for QDIALOCAL Job	
__	QDSNX	*CLS		DSNX SUBSYSTEM CLASS	
__	QFNC	*CLS		Finance Subsystem Class	
__	QINDUSR	*CLS		Class for Indirect User Job	
				More...	

Press Enter

Change Job Description (CHGJOB)				
Type choices, press Enter.				
Job description . . . . .	> UFSNTV	Name		
Library . . . . .	> QGPL	Name, *LIBL, *CURLIB		
Job queue . . . . .	<u>QBATCH</u>	Name, *SAME		
Library . . . . .	<u>QGPL</u>	Name, *LIBL, *CURLIB		
Job priority (on JOBQ) . . . . .	<u>5</u>	1-9, *SAME		
Output priority (on OUTQ) . . . . .	<u>5</u>	1-9, *SAME		
Print device . . . . .	<u>*USRPRF</u>	Name, *SAME, *USRPRF...		
Output queue . . . . .	<u>*USRPRF</u>	Name, *SAME, *USRPRF, *DEV...		
Library . . . . .	_____	Name, *LIBL, *CURLIB		
Text 'description' . . . . .	> <u>'UFS Job Description</u>			
				Bottom
F3=Exit	F4=Prompt	F5=Refresh	F10=Additional parameters	F12=Cancel
F13=How to use this display			F24=More keys	

Press F10 for Additional parameters, then  
 Scroll down to the Library List

```

Change Job Description (CHGJOB)

Type choices, press Enter.

Print text . . . . . *SYSVAL
Routing data . . . . . 'QCMDI'

Request data or command . . . . *NONE

Initial library list . . . . . QTEMP      Name, *SAME, *SYSVAL, *NONE
                               QGPL
                               RCDTAHQ
                               RCOBJHQ
                               SAND400
                               RCQRYHQ
                               + for more values SANDISQRY
Initial ASP group . . . . . *NONE      Name, *SAME, *NONE

More...

```

Type a + and space through the last entry to add a library to the bottom of the library list

```

Specify More Values for Parameter INLLIBL

Type choices, press Enter.

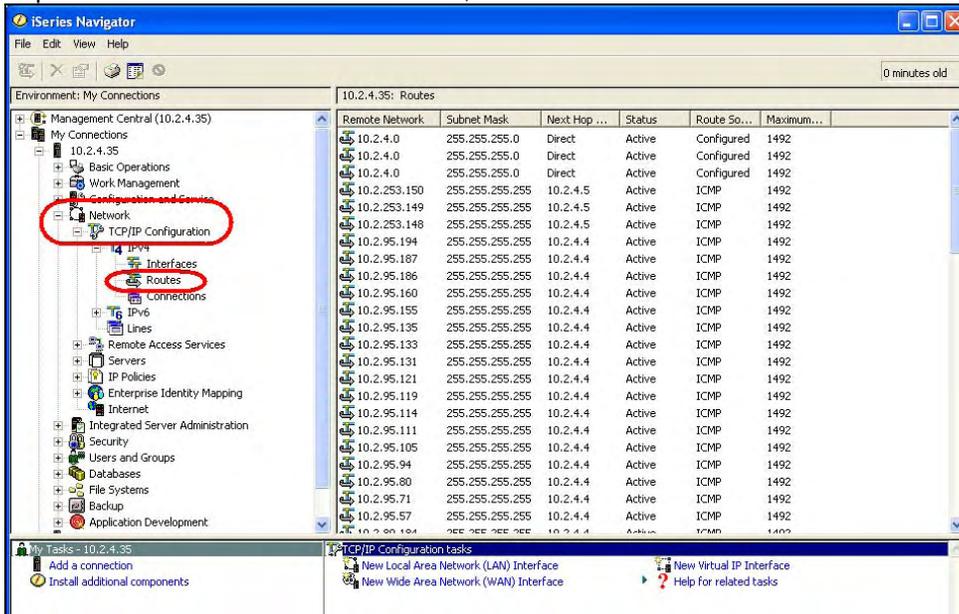
Initial library list . . . . . SANDISQRY  Name, *SAME, *SYSVAL, *NONE
                               customlib

```

# Adding TCP-IP Routes to the i5

Open System i Navigator

Expand **Network** and **TCP/IP Network**, then click **Routes**



Click on **New Local Area Network (LAN) interface**



Click **Next** at the bottom of the first window.

Welcome to the AS/400 Operations Navigator Wide Area Network (WAN) TCP/IP interface wizard.

The wizard will take you through the steps needed to configure a TCP/IP interface.

You may need to get certain information from your network administrator in order to answer some of the questions.

You can cancel the configuration process at anytime by clicking the Cancel button. Click the Help button to see a list of the information needed to create the interface.

Select **Ethernet** and click **Next**

What type of LAN connection will you be using for TCP/IP?

- Ethernet
- Token ring
- Distributed data interface (DDI)
- Wireless
- OptiConnect

Select **List by Lines** then select **Ethernet1**.

Click **Next**

Which hardware resource would you like to run TCP/IP over?

Line	Resource	Description
ETHERNET	*NWSD	Ethernet Line Desc...
<b>ETHERNET1</b>	CMN12	Ethernet Line Desc...
ETHLINWEB	CMN11	Ethernet line for web

- List by hardware resource names
- List by resource locations
- List by lines

Enter information for the new route. Depending on how the system is configured the Network name could be an IP address or something like ALR400

What are the settings for this TCP/IP interface?

IP address:

Interface name:

Subnet mask:

Network: 10.2.90.0

Host: 0.0.0.0

Network name:

Maximum transmission units:  ▼

Do you want to work with TCP/IP settings that affect the entire system? If you are configuring a second interface you might want to change IP forwarding.

- Yes
- No

Enter the default gateway for the new route. This is the gateway on your LAN (probably the same address used for Windows servers and other devices connected to the LAN).  
Click Add.

Network name: Howe  
Network: 10.2.90.0

Please enter up to three default gateway addresses.

Would you like to set additional routing information for this network interface?

Yes  
 No

Accept the defaults on the next window.

Which servers would you like automatically started when TCP/IP is started?

Start when TCP/IP is started:

- BOOTP
- DDM
- DHCP
- RouteD
- TFTP
- NFS
- INETD
- Management Central
- RPC
- AS/400 NetServer
- EDRSQL
- SNTTP
- QoS
- WebFacing

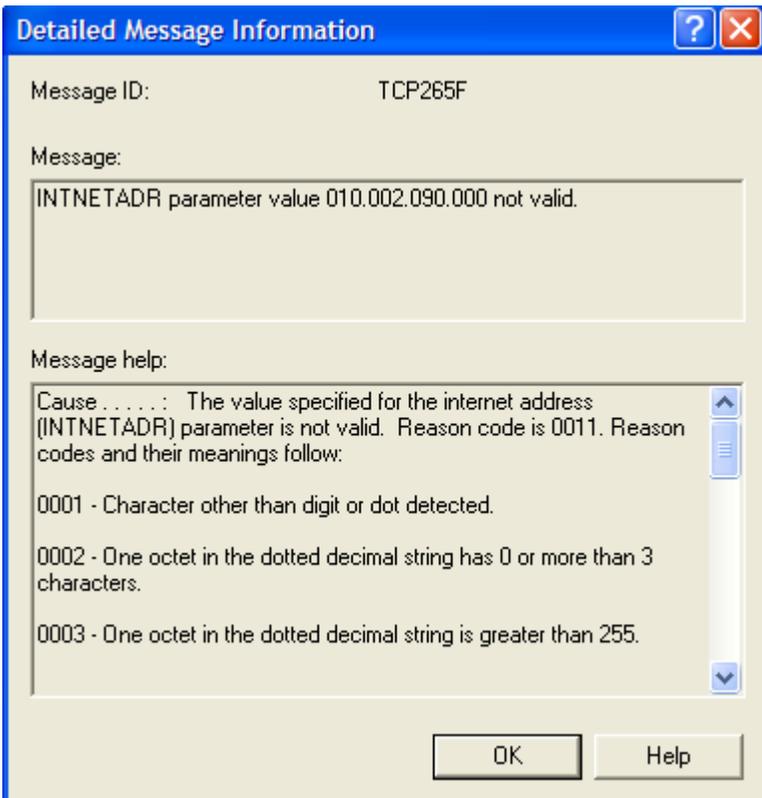
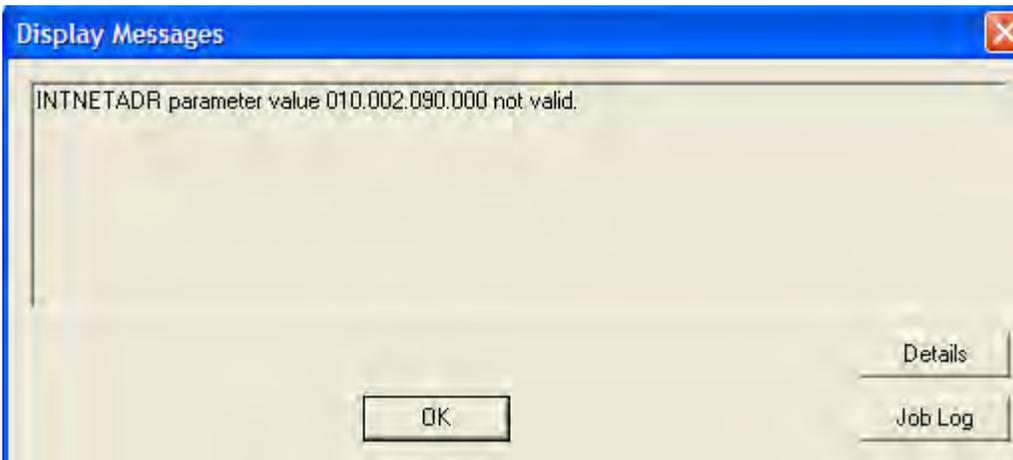
Select **Yes** to start every time and to start now.

Do you want to start this TCP/IP interface every time TCP/IP is started?

Yes  
 No

Do you want to start this TCP/IP interface now?

Yes  
 No



## ADD TCP/IP ROUTE

On the command line enter **cfgtcp**

Press Enter

```

Selection or command
==> cfgtcp
    
```

On the command line enter 2 Work with TCP/IP routes

Press Enter

```

CFGTCP                                Configure TCP/IP

Select one of the following:

    1. Work with TCP/IP interfaces
    2. Work with TCP/IP routes
    3. Change TCP/IP attributes
    4. Work with TCP/IP port restrictions
    5. Work with TCP/IP remote system information

   10. Work with TCP/IP host table entries
   11. Merge TCP/IP host table
   12. Change TCP/IP domain information

   20. Configure TCP/IP applications
   21. Configure related tables
   22. Configure point-to-point TCP/IP

Selection or command
==> 2
    
```

Take option 1 to add, key in IP, Subnet, Next Hop

Press Enter

```

                                Work with TCP/IP Routes
                                System:

Type options, press Enter.
  1=Add  2=Change  4=Remove  5=Display

  Opt  Route           Subnet           Next           Preferred
  _    Destination     Mask            Hop            Interface
  1    10.96.69.74     255.255.255.0  10.96.69.75
  _    *DFTRUTE       *NONE           10.96.69.65   *NONE
    
```

```

                                Add TCP/IP Route (ADDTCPRTE)

Type choices, press Enter.

Route destination . . . . . > '10.96.69.74'
Subnet mask . . . . . > '255.255.255.0'
Type of service . . . . . *NORMAL *MINDELAY, *MAXTHRPUT...
Next hop . . . . . > '10.96.69.75'

Preferred binding interface . . *NONE
Maximum transmission unit . . . *IFC 576-16388, *IFC
Route metric . . . . . 1 1-16
Route redistribution . . . . . *NO *NO, *YES
Duplicate route priority . . . . *MEDIUM 1-10, *MEDIUM, *HIGH, *LOW
Text 'description' . . . . . *BLANK
    
```

# View the Configuration of a Controller

On the command line enter **WRKLIND ETH\***

Take Option 8 Work with status for the line you want to work with.

```

Work with Line Descriptions
System:
Position to . . . . . _____ Starting characters

Type options, press Enter.
 2=Change 3=Copy 4=Delete 5=Display 6=Print 7=Rename
 8=Work with status 9=Retrieve source

Opt Line      Type      Text
-  ETHLININT  *ELAN    Internal Gig Ethernet 1
=  ETHLINWEB  *ELAN    Ethernet line for Web
    
```

On the first line take Option 8 Work with description.

```

Work with Configuration Status
ALR400
03/22/11 16:50:0
Position to . . . . . _____ Starting characters

Type options, press Enter.
 1=Vary on 2=Vary off 5=Work with job 8=Work with description
 9=Display mode status 13=Work with APPN status...

Opt Description      Status      -----Job-----
-  ETHLINWEB          ACTIVE
-  ETHCTLWEB          ACTIVE
-  ETHDEVWEB          ACTIVE      QTCPWRK  QSYS      622263
-  ETHLITCP           VARIED ON
    
```

Take Option 5 Display

```

Work with Line Descriptions
System:
Position to . . . . . _____ Starting characters

Type options, press Enter.
 2=Change 3=Copy 4=Delete 5=Display 6=Print 7=Rename
 8=Work with status 9=Retrieve source

Opt Line      Type      Text
=  ETHLINWEB  *ELAN    Ethernet line for Web
    
```

```

- Display Line Description

Line description . . . . . : ETHLINWEB
Option . . . . . : *BASIC
Category of line . . . . . : *ELAN

Resource name . . . . . : CMN06
Online at IPL . . . . . : *YES
Vary on wait . . . . . : *NOWAIT
Network controller . . . . . : ETHCTLWEB
Local adapter address . . . . . : 00145E962573
Exchange identifier . . . . . : 056B8BF0
Ethernet standard . . . . . : *ALL
Line speed . . . . . : *AUTO
Current line speed . . . . . : 100M
Duplex . . . . . : *AUTO
Current duplex . . . . . : *HALF
Serviceability options . . . . . : *NONE
Maximum frame size . . . . . : 1496

Press Enter to continue.

F3=Exit F11=Display keywords F12=Cancel
    
```

# Edit the Configuration of a Controller

You must first end the interfaces associated with the line (Ethernet controller) then vary it off. You can then edit the configuration and then vary it on. Once it's on you need to restart the interfaces.

On the Command Line enter **NETSTAT**  
Option 1 Work with IPv4 interface status

```
Work with TCP/IP Network Status

Select one of the following:

 1. Work with IPv4 interface status
 2. Display IPv4 route information
 3. Work with IPv4 connection status
 4. Work with IPv6 interface status
 5. Display IPv6 route information
 6. Work with IPv6 connection status

10. Display TCP/IP stack status
```

End the Interfaces associated with the Line Description:

Take **Option 10** on the appropriate addresses. (If option 10 isn't present the account you logged on with does not have full permissions to the system)

```
Work with TCP/IP Interface Status                               System:
Type options, press Enter.
5=Display details  8=Display associated routes  9=Start  10=End
12=Work with configuration status  14=Display multicast groups

  Internet      Network      Line      Interface
Opt Address      Address      Description Status
--  ---
_   10.2.4.35     10.2.4.0     ETHLININT Active
_   10.2.4.36     10.2.4.0     ETHLININT Active
_   10.2.4.64     10.2.4.0     ETHLININT Active
_   127.0.0.1     127.0.0.0     *LOOPBACK Active
_   158.96.129.114 158.96.129.112 ETHLINWEB Active
_   158.96.129.115 158.96.129.112 ETHLINWEB Active
```

Press F12 to get back to a command line.

Vary off the Controller:

On the command line enter **WRKLIND ETH\***

Take Option 8 Work with status for the line you want to work with.

```
Work with Line Descriptions                               System:
Position to . . . . . Starting characters

Type options, press Enter.
 2=Change  3=Copy  4=Delete  5=Display  6=Print  7=Rename
 8=Work with status  9=Retrieve source

Opt Line      Type      Text
--  ---
_   ETHLININT *ELAN     Internal Gig Ethernet 1
_   ETHLINWEB *ELAN     Ethernet line for Web
```

Take Option 2 on the first line to vary it off.

Wait for it to show it's ended.

```
Work with Configuration Status                               ALR400
                                                                03/22/11 16:50:0
Position to . . . . . Starting characters

Type options, press Enter.
 1=Vary on  2=Vary off  5=Work with job  8=Work with description
 9=Display mode status  13=Work with APPN status...

Opt Description      Status      -----Job-----
--  ---
_   ETHLINWEB         ACTIVE
_   ETHCTLWEB         ACTIVE
_   ETHDEVEWEB        ACTIVE      QTCPRK  QSYS  622263
_   ETHLITCP          VARIED ON
```

Press F12 to return to the previous screen (or on the command line enter WRKLIND ETH\*)

Take Option 8 Work with status for the line you want to work with.

```
Work with Line Descriptions
System:
Position to . . . . . Starting characters

Type options, press Enter.
 2=Change  3=Copy  4=Delete  5=Display  6=Print  7=Rename
 8=Work with status  9=Retrieve source

Opt Line      Type      Text
-  ETHLININT  *ELAN    Internal Gig Ethernet 1
=  ETHLINWEB  *ELAN    Ethernet line for Web
```

Take Option 8 Work with description on the first line.

```
Work with Configuration Status
ALR400
03/22/11 16:50:0
Position to . . . . . Starting characters

Type options, press Enter.
 1=Vary on  2=Vary off  5=Work with job  8=Work with description
 9=Display mode status  13=Work with APPN status...

Opt Description      Status      -----Job-----
-  ETHLINWEB          ACTIVE
-  ETHCTLWEB          ACTIVE
-  ETHDEVWEB          ACTIVE      QTCPWRK  QSYS  622263
-  ETHLITCP           VARIED ON
```

Take Option 2 Change

```
Work with Line Descriptions
System:
Position to . . . . . Starting characters

Type options, press Enter.
 2=Change  3=Copy  4=Delete  5=Display  6=Print  7=Rename
 8=Work with status  9=Retrieve source

Opt Line      Type      Text
=  ETHLINWEB  *ELAN    Ethernet line for Web
```

Edit the configuration as necessary.

Press Enter

Vary the controller back on

Restart the interfaces.

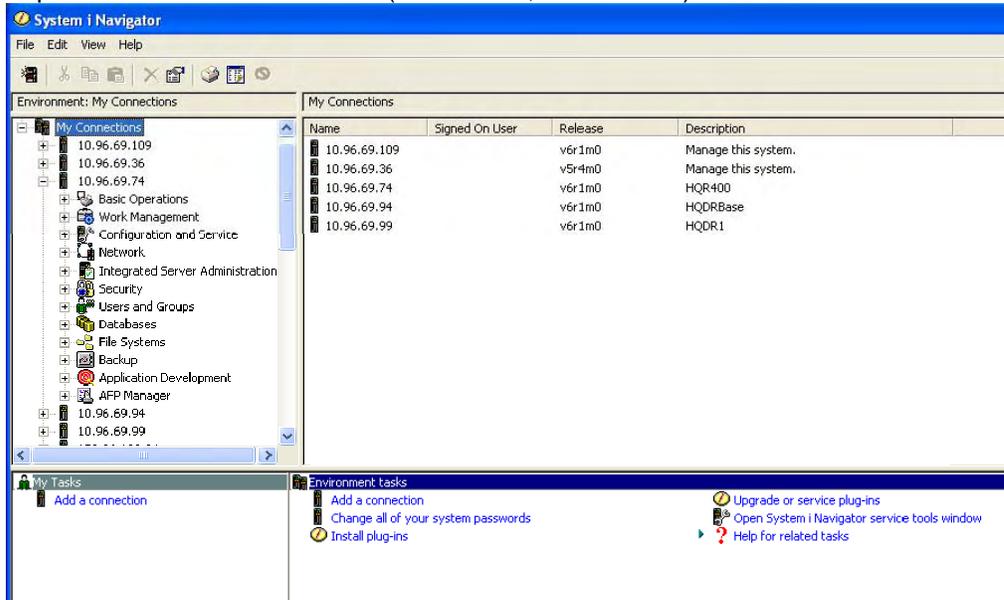
# Procedure for setting up Printer Output from the System i Navigator (Enables user to print reports from here or export to a file)

Launch System i Navigator:

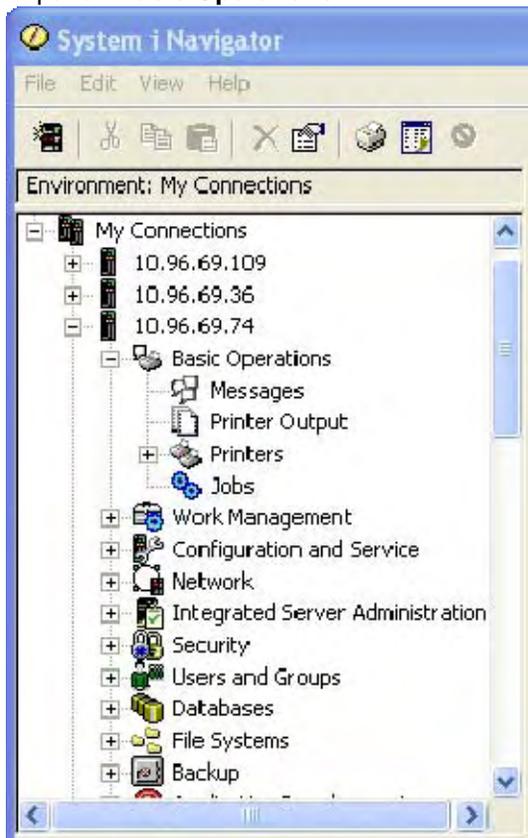


Note: You may be prompted to login

Expand the IP Address of the i5 (in this case, 10.96.69.74)



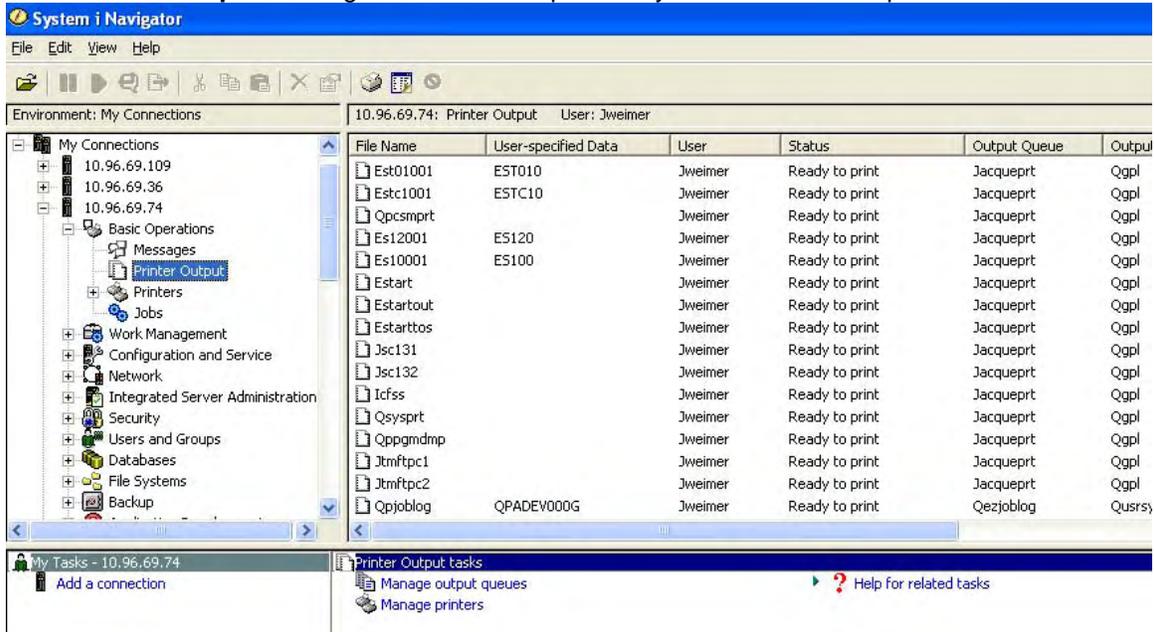
Expand "Basic Operations"



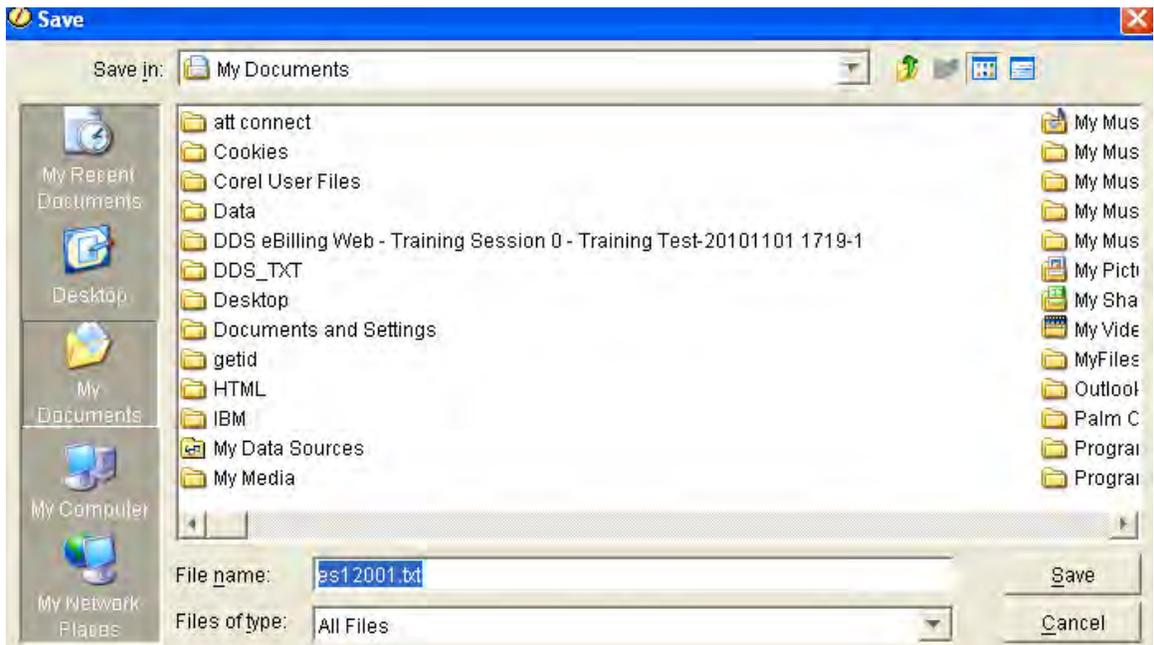
Right click on “Printer Output” to create a shortcut



Click “Printer Output” and right click on the report that you would like to export.



Select Export to create a .txt file. Type the name of the report and the extension that you would like to export it to. It will automatically default to a .txt file extension. Click on **Save**.



## To copy a spool file to a disk file

First get information about the spool file

go to the output queue In this case the archive queue.

```
Selection or Command  
==> wrkoutq archive
```

Take an 8 to display details

Opt	File	User	User Data	Sts	Pages	Copies	Form Type	Pty
<u>8</u>	QPQUPRFL	ALDBLYNE		HLD	9	1	*STD	5
	CS821R01	ALDBTERR	CS821R	HLD	11638	2	*STD	5
	CS821R01	ALDBTERR	CS821R	HLD	8712	1	*STD	5

### Work with Spooled File Attributes

```
Job . . . . . : QPADEV0011      File . . . . . : CS821R01  
User . . . . . : ALDBTERR      Number . . . . . : 1  
Number . . . . . : 601876
```

```
Parameters for options  
==> call clsp103
```

```
9/09/05          Alta California Region Center  
11:10:00        Save Spooled Output
```

---

```
Spooled file..... CS821R01  
Job Name..... QPADEV0011  
User..... ALDBTERR  
Number..... 601876  
Spooled file number..... 1  
Copy to File..... REPORTS
```

Please enter the Spool File information Needed and  
Press ENTER. (Make Sure The Tape is in the Drive).

Copy the file to tape:  
savobj then F4

```
Parameters for
==> savobj_
F9=Exit F11=
```

Enter the following information and press enter. May need to press enter twice.

```

                                Save Object (SAVOBJ)

Type choices, press Enter.

Objects . . . . . reports      Name, generic*, *ALL
                        + for more values
Library . . . . . ldilib       Name, generic*
                        + for more values
Device . . . . . tap01        Name, *SAVF, *MEDDFN
                        + for more values
Object types . . . . . *ALL     *ALL, *ALRTBL, *BNDDIR...
                        + for more values

```

Take a 4 to delete the spool file

Opt	File	User	User Data	Sts	Pages	Copies	Form	Type	Pty
<u>4</u>	CS821R01	ALDBTERR	CS821R	HLD	11638	2	*STD		5

Clear the Reports file (don't delete it)

```
Parameters for options 1, 2, 3
==> clrpfm ldilib/reports_
F9=Exit F11=View 2 F12=Car
```

Display tape:  
f4

```
Selection or Command
==> dsptap_
```

```

                                Display Tape (DSPTAP)

Type choices, press Enter.

Device . . . . . tap01      Name
Volume identifier . . . . . *MOUNTED  Character value, *MOUNTED
File label . . . . . *ALL
Sequence number . . . . . 1      1-16777215
Data type . . . . . *LABELS   *LABELS, *SAVRST
Output . . . . . *print      *, *PRINT, *OUTFILE
End of tape option . . . . . *REWIND *REWIND, *UNLOAD

```

Restore from tape:

rstobj <F4>

```
Selection or Command  
==> rstobj
```

Press F10 for more information

```
Restore Object (RSTOBJ)  
  
Type choices, press Enter.  
  
Objects . . . . . > REPORTS      Name, generic*, *ALL  
      + for more values  
Saved library . . . . . > LDILIB      Name  
Device . . . . . > TAP01      Name, *SAVF, *MEDDFN  
      + for more values  
Object types . . . . . *ALL      *ALL, *ALRTBL, *BNDDIR...  
      + for more values  
Volume identifier . . . . . *MOUNTED  
      + for more values  
Sequence number . . . . . 2      1-16777215, *SEARCH  
Label . . . . . *SAVLIB  
End of media option . . . . . *REWIND  *REWIND, *LEAVE, *UNLOAD  
Option . . . . . *ALL      *ALL, *NEW, *OLD, *FREE
```

Page Down and change Restore to Library to qtemp

Note; This will only be viewable from this session and will be deleted when you sign off.

## Restore Object (RSTOBJ)

Type choices, press Enter.

```
File member:
  File . . . . . *ALL      Name, *ALL
  Member . . . . . *ALL      Name, generic*, *ALL, *NONE
    + for more values
    + for more values
Data base member option . . . . *MATCH    *MATCH, *ALL, *NEW, *OLD
Date when saved . . . . .      Date
Time when saved . . . . .      Time
Allow object differences . . . . *NONE      *NONE, *ALL, *FILELVL
Force object conversion:
  Convert during restore . . . . *SYSVAL    *SYSVAL, *NO, *YES
  Objects to convert . . . . .   *RQD, *ALL
Restore to library . . . . .   qtemp      Name, *SAVLIB
Auxiliary storage pool ID . . . . *SAVASP    1-32, *SAVASP
Output . . . . . *NONE      *NONE, *PRINT, *OUTFILE
```

To view the file

```
Selection or Command
==> wrkf qtemp/reports_
1 objects restored from D
```

Opt	File	Library	Attribu
<u>5</u>	REPORTS	QTEMP	PF

Enter again

```
Type choices, press Enter.
File . . . . . > REPORTS      Name
Library . . . . . > QTEMP      Name, *LIBL, *CURLIB
Member . . . . . *FIRST      Name, *FIRST, *LAST
From record . . . . . 1      Number, *END, *ALLDATA
```

Use page up / down or f19 or F20 to move around

in control line can put

B to go to bottom

T to go to the top

Pxxx to go to a page number

Wxx to go to a left right position number.



## Copy Files to Another Library

On the command line enter **CPYF** and press **F4**

- **From file** and **Library**: Enter the file name and the library it's in.
- **To file** and **Library**: Enter the file name and the library you want to copy it to.

Copy File (CPYF)		
Type choices, press Enter.		
From file . . . . .	_____	Name
Library . . . . .	*LIBL_____	Name, *LIBL, *CURLIB
To file . . . . .	_____	Name, *PRINT
Library . . . . .	*LIBL_____	Name, *LIBL, *CURLIB
From member . . . . .	*FIRST_____	Name, generic*, *FIRST, *ALL
To member or label . . . . .	*FIRST_____	Name, *FIRST, *FROMMBR, *ALL
Replace or add records . . . . .	*NONE_____	*NONE, *ADD, *REPLACE...
Create file . . . . .	*NO_____	*NO, *YES
Print format . . . . .	*CHAR_____	*CHAR, *HEX

If the **To file** already exists and you want to replace it, enter \*REPLACE for **Replace or add records**.

If the **To file** already exists and you want to append to it, enter \*ADD for **Replace or add records**.

If the **To file** does not exist, enter \*YES for **Create file**.

## Daily Check of Previous Night's Backup

UTL007BCL is part of the enhanced back up process created by SANDIS. It tells you if there were things on your system that were not saved. To see what was not saved, type **CALL MORNING** (and press Enter). This will bring up system operator messages for you to view, UFS Program Update messages, SANDIS Program Update messages, and your own messages (just press ENTER after you're through looking at the messages in each queue). After that, a menu will appear which you can use to look at the back up status for the past few weeks; use option 1 to select the back up you want to check.

```

SANDIS - UTL                                ALR400
LSTHLP                                     Help                                3/28/11 15:04:54
Field:      DSPBCKUPLG                      Position to: _____
Type options, press Enter.
  1=Select

Option Code  Description
  1           Backup for FRI 03/26/11
  -           Backup for THU 03/25/11
  -           Backup for WED 03/24/11
  -           Backup for TUE 03/23/11
  -           Backup for MON 03/22/11
  -           Backup for FRI 12/18/10
  -           Backup for THU 12/17/10
  -           Backup for WED 12/16/10
  -           Backup for TUE 12/15/10
  -           Backup for MON 12/14/10
More...

F12=Cancel
  
```

```

SANDIS - Utility system                      ALR400
Display backup error messages                15:07:14
Backup for FRI 03/26/11
Message Serverity: 30      Message ID: CPF3777
Message:
03/26/11 00:40:00.020423 QSRSLCP2   QSYS       03BC       QEZRUNBK

Message . . . . : 85 libraries saved, 1 partially saved, 0 not saved.
Cause . . . . : 85 libraries were saved, 1 libraries were partially saved,
and 0 libraries were not saved at 03/26/11 00:12:42. The save operation
ended on volume BCKUP. Recovery . . . : Display the job log (DSPJOBLOG
command) to see the previously listed messages. Correct any errors and try
the request again. If the save operation was completed but one or more
libraries were not saved, you can use the Save Library (SAVLIB) command to
save only the libraries that were not saved.
  
```

```

SANDIS - Utility system                      ALR400
Display backup error messages                15:08:38
Backup for FRI 03/26/11
Message Serverity: 30      Message ID: CPF1EE7
Message:
03/26/11 00:56:34.477893 QEZRUNBK   QSYS       09AE       UTL007BCL

To module . . . . . : UTL007BCL
To procedure . . . . . : UTL007BCL
Statement . . . . . : 4200
Message . . . . : Unexpected error occurred during backup.
Cause . . . . : An error occurred during the *WEEKLY backup and the
program could not determine the cause of the error. The program attempted
to complete as much of the backup as possible. Recovery . . . : Use F10
(if available) or the Display Job Log (DSPJOBLOG) command to see the
messages in the job log for a more complete description of what was backed
up and what caused the error. Correct the errors and try the request again.
You may need to contact your technical support person to solve the problem.
  
```

When you're finished, exit the menu and the program will print a display-tape and eject the tape for you.

# Daily check for System Messages

Log on as SYSOPR user type

SYOPMAIN Menu:

Take a 1 for "Display System Message Queue"

```
Session A - [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
PrtScrn Copy Paste Send Recv Display Color Map Record Stop P
SYOPMAIN                               SYOPMAIN Menu           12/24/01
ALSYSOPR                               System Operator Main Menu 08:34:36
Select one of the following:
Options                                Menus
1. Display System message queue        13. Communications/Devices - SYOPCMDY
2. Work with system printer            14. Backup/Restore         - SYOPBKRS
3.                                     15. Electronic Billing/EFT - SYOPEB
4. Work with all active jobs           16. File Transfer         - SYOPFTFR
5.                                     17. Transmission via lines - SYOPTRN1
6. Work with messages                 18. Transmissions via tape - SYOPTRN2
7. Send a message                     19. Transmit entire files - SYOPTRN3
8.                                     20. Retransmit file       - SYOPTRN4
9. Check UFSPGMS msgq                 21.                         -
10. Check SANDPGMS msgq               22. Power up/down system  - SYOPSIPL
11. Update Report Printer Defaults     23.                         -
12. Print file layout                  24. Signoff

Selection or command
==> 13

MA a ML 23/009
Connected to remote server/host ALR400 using port 23
```

Scroll up to read the messages and take appropriate action.

```
Session A - [24 x 80]
File Edit Transfer Appearance Communication Assist Window Help
PrtScrn Copy Paste Send Recv Display Color Map Record Stop P
Display Messages
Queue . . . . . : QSYSOPR           System: ALR400
Library . . . . : QSYS             Program . . . . : *DSPMSG
Severity . . . . : 70              Library . . . . :
Delivery . . . . : *HOLD

Type reply (if required), press Enter.
device *N.
Local system sent SNA negative response data to controller EXPB400CTL on
device *N.
All sessions ended for device EXPB400DEV.
Subsystem QINTER disabled user profile QSECOFR on device QPADEV0019.
Line UFS82LLN varied on successfully.
Press Ready, Start, or Start/Stop on printer PRT02.
Writer 675395/QSPLJOB/PRT23 started.
Error(s) logged by SNADS while a distribution request was being routed.
Load form type '*STD' device PRT03 writer PRT03. (G B I H R C)
Reply . . . : G
Operator action required on device PRT03 (C R).
Reply . . .

Bottom
F3=Exit          F11=Remove a message      F12=Cancel
F13=Remove all   F16=Remove all except unanswered F24=More keys

MA a ML 20/020
Connected to remote server/host ALR400 using port 23
```

## Initialize Tape (INZTAP)

Type choices, press Enter.

Device .....	<b>TAP01</b>	Name
New volume identifier .....	<b>HQV006</b>	Character value, *NONE...
New owner identifier .....	<b>HQDDS</b>	
Volume identifier .....	<b>*MOUNTED</b>	Character value, *MOUNTED
Check for active files .....	<b>*NO</b>	*YES, *NO, *FIRST
Tape density .....	<b>*ULTRIUM3</b>	*DEVTYPE, *CTGTYPE, ....
Code .....	<b>*EBCDIC</b>	*EBCDIC, *ASCII
End of tape option .....	<b>*REWIND</b>	*REWIND, *UNLOAD
Clear .....	<b>*NO</b>	*NO, *YES

### Check for active files:

Specifies whether a labeled tape volume should be checked for active data files before it is initialized for use. If an unlabeled volume is placed in the specified device, this parameter is ignored.

#### \*YES

All data file labels on the tape are checked. If any active files are found, the operation is ended and an error message is sent.

#### \*NO

Tape initialization continues with no checking for active files. To initialize a new or empty volume for use, \*NO must be specified here and \*MOUNTED must be specified on the Volume identifier prompt (VOL parameter).

#### \*FIRST

Only the first data file label on the tape is checked. If there are no data files on the volume or if the first data file has expired, the volume is initialized for use without checking for any other files on the tape. If the first data file has not expired, the operation is ended and an error message is sent.

### Clear:

Specifies whether all previous labels and data are deleted from the tape when it is initialized. If the volume must be cleared of all data, it is spaced from the location of the initializing volume label or tape markers to the end of the tape marker.

After you are done do dsptap tap01:

### Display Tape Volume Information

```
Device .....: TAP01          Volume ID ....: HQV006
Owner ID .....: HQDDS        Density .....: *ULTRIUM3
Type .....: *SL             Code .....: *EBCDIC
*It is important that type is *SL (standard label)
```

## Display (Catalog) Tapes

To determine the tape device you want to look at, on a command line enter  
WRKDEVD \*TAP and press Enter  
F14 to show device status:

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Work with Configuration Status HQR400
04/14/11 15:34:29
Position to . . . . . Starting characters
Type options, press Enter.
1=Vary on 2=Vary off 5=Work with job 8=Work with description
9=Display mode status 13=Work with APPN status...
Opt Description Status -----Job-----
- TAP01 VARIED ON
- TAP02 VARIED OFF
Bottom
Parameters or command
===>
F3=Exit F4=Prompt F12=Cancel F23=More options F24=More keys
I902 - Session successfully started
```

On a command line enter  
DSPTAP then press F4

### Data type:

\*LABELS – displays the name of the libraries on the tape. Does not show files in the libraries.

\*SAVRST – displays each file

### Output:

\* = Display (Note: libraries are listed one at a time and you must press enter to view the next library.)

\*PRINT = Sends the output to your default Spool File

Display Tape (DSPTAP)

Type choices, press Enter.

Device . . . . .	<u>tap01</u>	Name
Volume identifier . . . . .	<u>*MOUNTED</u>	Character value, *MOUNTED
File label . . . . .	<u>*ALL</u>	
Sequence number:		
Starting file sequence number	<u>*FIRST</u>	1-16777215, *ALL, *FIRST
Ending file sequence number .	<u>*LAST</u>	1-16777215, *ONLY, *LAST
Data type . . . . .	<u>*LABELS</u>	*LABELS, *SAVRST
Output . . . . .	<u>*</u>	*, *PRINT, *OUTFILE
End of tape option . . . . .	<u>*REWIND</u>	*REWIND, *UNLOAD

Bottom

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display  
F24=More keys

## TechTip: Download Physical Files Using Microsoft Excel

[Tips & Techniques - Microsoft](#)

Written by Paul Weyer

Thursday, 02 September 2004 18:00

Use iSeries Access for Windows to transfer iSeries physical file data into an Excel spreadsheet.

Many end users of iSeries applications need specific data to analyze their business, and they require different views of this data. The development staff often provides these views in the form of reports either by creating a high-level language program (RPG or COBOL) or by writing a query.

iSeries shops have given end users the ability to write their own queries via either the standard OS/400 commands or third-party software products. However, some of the sequences that the users choose can have a detrimental effect on system performance.

Furthermore, one limitation of both the application programs and the query options is that a new program or query must be written for every different view of the data. Wouldn't it be nice if there were a tool that would allow the end user to sequence and group the data without having to write and run individual programs and/or queries? Well, there is! That tool is Microsoft Excel. Once data is transferred into an Excel spreadsheet, sort and hide functions can manipulate that data. Also, transferring the data to a PC eliminates the potential for performance degradation on the iSeries.

Here's how to use the iSeries data transfer function:

1. Open Microsoft Excel.
2. Click on the Data option in the toolbar.
3. Click on the double arrow to expand the option list.
4. Look for Transfer Data from iSeries.

If you see the Transfer Data from iSeries option, the capability to perform data transfer is available. If you don't see the option, confirm that IBM iSeries Access for Windows (V5R1 and later) or Client Access (prior to V5R1) is installed. If it is not installed, install it.

Now, enable the add-in:

1. Click on the Add-Ins option.
2. Scan the Add-Ins list for the iSeries Access Data Transfer option.

3. Click on the box to enable it.

If you don't see the iSeries Access Data Transfer option, click the Browse button. Using the Look in box, navigate to c:/program files/ibm/client access/shared/ and select file cwbtfxla.xll.

Now, it's time to perform the data transfer:

1. Open Microsoft Excel.
2. Click on the Tools option in the toolbar.
3. Click on the iSeries Access Data Transfer option. If the iSeries Access Data Transfer option is not displayed, click on the double arrow.
4. A Transfer Data window will open.
5. Select Create New and choose whether to include column headings.
6. Click the OK button.
7. Select the iSeries server the data is to be downloaded from and click the Next button.
8. If you know the library/file (member), type it in and click the Next button; otherwise, click the Browse button. If you click the Browse button, a new window to connect to the iSeries may be displayed. If so, type in the user ID and password. A list of libraries in the library list is displayed. Click on the plus sign (+) next to the library where the file exists. The list expands to show all the files in that library. If the file contains members, the list expands to display the list of members. Double-click on the member that is to have the data transferred to the Excel spreadsheet, and click on the OK button. Click the Next button.
9. On the next screen, click the Next button.
10. If this transfer request will be used again, type in a file name and location to where it is to be saved; otherwise, leave the File name box empty.
11. Click the Finish button.

The data transfer function has now populated the Excel spreadsheet with the file records.

There is a limitation of a maximum of 65,535 records that can be transferred from an iSeries physical file to an Excel spreadsheet.

## Download i5 user Profiles

On the command line enter **DSPUSRPRF** (display user profile). And press **F4**

DSPUSRPRF

User profile: **\*ALL**

Output: **\*OUTFILE**

Click **OK** or press **Enter**

User profile	<input type="text" value="*ALL"/>	Name, generic*
Type of information	<input type="text" value="*BASIC"/>	...
Output	<input type="radio"/> * <input type="radio"/> *PRINT <input checked="" type="radio"/> *OUTFILE	

File to receive output: Whatever you want to name the file (example: Profiles)

Library: enter the library name on the i5 where the file will be saved. (example: ALTA)

Click **OK** or press **Enter**

User profile	<input type="text" value="*ALL"/>	Name, generic*
Type of information	<input type="text" value="*BASIC"/>	...
Output	<input type="radio"/> * <input type="radio"/> *PRINT <input checked="" type="radio"/> *OUTFILE	
File to receive output	<input type="text" value="Profiles"/>	Name
Library	<input type="text" value="ALTA"/>	Name
Output member options:		
Member to receive output	<input type="text" value="*FIRST"/>	Name
Replace or add records	<input checked="" type="radio"/> *REPLACE <input type="radio"/> *ADD	

Create an ODBC connection to the i5 library you used

Open Microsoft Access and download the file.

## Profiles table field list

Field	Description	Notes
UPDCEN		
UPDDAT	Date last updated	Sets it to today's date so not useful
UPDTIN	Time last updated	Sets it to today's date so not useful
UPSYST		ALR400
<b>UPUPRF</b>	<b>User ID</b>	<b>User account</b>
UPUSCL	User class	User, secofr, etc
UPDSIN	Assistance level	
UPPWCC	Password??	everyone at "1"
UPPWCD	Password changed date	
UPPWCT	Password changed time	
PUPWEI	Password??	everyone at "0"
UPPWEX	Password expired	Everyone at *NO
UPPWON		
UPPSOC		
UPPSOD	?? changed date	
UPPSOT	?? changed time	
UPDVS		
<b>UPSPAU</b>	<b>Special Authority</b>	<b>*ALLOBJ, *CHGJOB, *SPPLF, etc.</b>
UPMXST		

YPMXSU	Maximum allowed storage	Most set at 12
UPPRLT	Highest schedule priority	Most set at 3
UPINPG	Initial program to call	
UPINDL	Initial program to call - Library	
UPJBDS	Job description	
UPJBDL	Job description - Library	
UPOWNR	Group profile - Owner	
UPGRPF	Group profile	
UPGRAU	Group authority	
UPGRPI		
UPACCD		
UPMGQU	Message queue	
UPMGQL	Message queue - Library	
UPMGQL		
UPOTQU	Output Queue	
UPOTQL	Output Queue - Library	
<b>UPTXT</b>	<b>Text 'description'</b>	<b>User name</b>
UPSPEN		*NONE
UPCRLB	Current library	
UPINMEN	Initial Menu	
UPINML	Initial Menu - Library	
UPLTCP	Limit capabilities	
UPDLVY	Delivery	
UPSVRT		
UPPRDV	Print device	
UPATPG	Attention program	
UPATPL	Attention program - Library	
UPUSOP	User options	
UPUPLK		
UPUPDM		
UPSTAT	Status	Same, *enabled, *disabled
UPKBDB	Keyboard buffering	
UPASTL	Assistance level	
UPLANG	Language ID	
UPCNTR	Country or region ID	
UPCCSI	Code character set ID	
UPSRT	Sort sequence	
UPSRTL	Sort sequence - Library	
UPOBJA		
UPAUDL		
UPGATY		
UPSUPG		
UPUID	User ID number	
UPGID	Group ID number	
UPSETJ		
UPCHID		
UPENPW		
UPENPH		
UPENLM		
UPLPWM		

## OTech / Statewide Communication Down

There are two controllers in the i5 that handle traffic via OTech (DDS, SANDIS, statewide search, etc.):

<b>DTSAPPC</b>	Used for pass through and file transfers.
<b>DTSHOST</b>	Used for statewide search (connection to the statewide database).

### Check Controller Status:

On the command line enter: **WRKCFGSTS \*CTL DTS\*** (work with configuration status)

### Recovery Process:

If either controller is not showing "Varied On" you must vary off each controller.

Take **option 2** (Vary off) on each controller. Both must be off before proceeding.

Take **option 1** (Vary on) to vary on the controllers in the following order:

**DTSAPPC** (must be varied on first)  
**DTSHOST**

# Full System Backup

Note: if at any time you get an error message, place your cursor on the error message and press F1 to get a list of the options and codes.

## INITIALIZE TAPE

1. Log on as user with SYSOPR authority
2. Insert blank tape (any data on tape will be erased)
3. Type this command: inztap (don't press enter)
4. Press f4 and enter the following information:
  - Device = tap01 (or your default tape device)
  - New Volume Identifier = enter name of tape (i.e. Full Backup or State Claims)
  - Check for active files = \*no
  - End of tape option = unload
5. Press Enter
6. You will get a message that the system is initializing the tape

## PRE-BACKUP CHECK – best practices

1. Enter command: wrkactjob
2. Press enter
3. Make sure there are no active jobs and no users are signed on
4. If they are, they will be disconnected when the backup begins
5. Make sure you're logged on as user with SYSOPR authority
6. From the SYOPMAIN menu type option 1 (Display system message queue)
7. Press enter
8. The display lists all messages and errors
9. Check printer messages and answer each one (Cancel writers that only have option to retry or cancel)

## BACKUP

1. Log on as QSECOFR
2. Insert a blank tape (one that has been initialized)
3. Type the command: go save
4. Press enter
5. Roll to #21
6. Type option 21 (Entire System save)
7. Press enter (You will see a display listing what the backup will do)
8. Press enter to continue
  - In the "Prompt for commands field", enter: N
  - In the "Check Active Files field", enter: N
  - In the "Message Queue", enter: \*NOTIFY  
(If you don't do this you will have to stay and answer all prompts yes or no)
9. Press enter

If you get an error message asking you to respond to printer messages see step 9 in Pre-Backup procedure above. Enter a response to each. The backup screen will be redisplayed and the backup will proceed without the operator doing anything.

The display will not change but you can tell the system is running by an "X" in the lower left corner of the display and the green light on the tape drive flashes. After about 1 ¾ hours, you will see a listing of libraries processed at the bottom of the display. The list will change occasionally. Be patient.

## Full System Save - Encrypted

A full system save should be performed regularly – at least quarterly – to ensure you have the information necessary to recover in the event of a disaster. Follow the instructions under the topic “Full System Backup” for initializing tapes and doing the pre-backup check. Instead of Option 21, you will be doing Option 22 (System data only) directly to tape, and Option 23 (All user data) to virtual tape for encryption before saving to physical tape:

### BACKUP – System Data

1. Log on as QSECOFR
2. Insert a blank tape (one that has been initialized)
3. Type the command: go save
4. Press enter
5. Roll to #22
6. Type option 22 (System data only)
7. Press enter (You will see a display listing what the backup will do)
8. Press enter to continue
  - On the line for Device, enter your physical tape device name (ie. TAP01)
  - In the “Prompt for commands” field, enter: N
  - In the “Check for active File” field, enter: N
  - In the “Message queue delivery” field, enter: \*NOTIFY  
(If you don't do this you will have to stay and answer all prompts yes or no)
9. Press enter

### BACKUP – User data

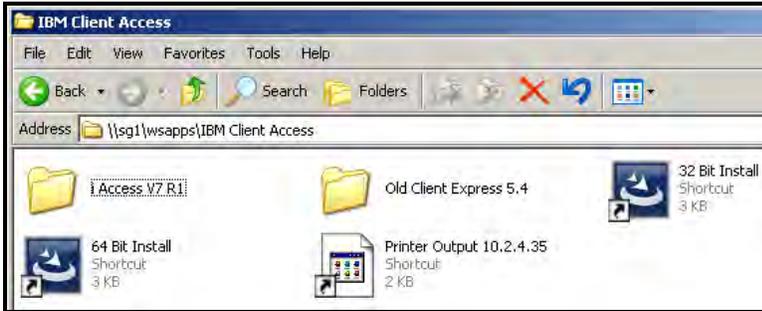
10. Type option 23 (All user data)
11. Press enter (You will see a display listing what the backup will do)
12. Press enter to continue
  - On the line for Device, enter your virtual tape device name – TAPVRT01
  - In the “Prompt for commands” field, enter: N
  - In the “Check for active files” field, enter: N
  - In the “Message queue delivery” field, enter: \*NOTIFY
13. Press enter

### ENCRYPT

14. WRKJOBSCDE and find the job PKNIGHTLY. Enter Option 10 to submit immediately. This will encrypt the user data that has been backed up to virtual tape.
15. When PKNIGHTLY is done, take Option 10 on PK2TAPE to transfer the encrypted file to tape. Make sure there is a clean, initialized tape in the tape drive. Do not try to add on to the Option 22 backup, because the PK2TAPE process will first clear the tape.

# IBM Client i Access v7.1 Installation

Go to \\sg1\WSApps\IBM Client Access and run the install for 32 bit or 64 bit version.



Click OK to continue.



Click Next to continue.



Accept the terms then click Next.



Use the default location. Click Next to continue.



Leave as MRI2924 - English. Click Next to continue.



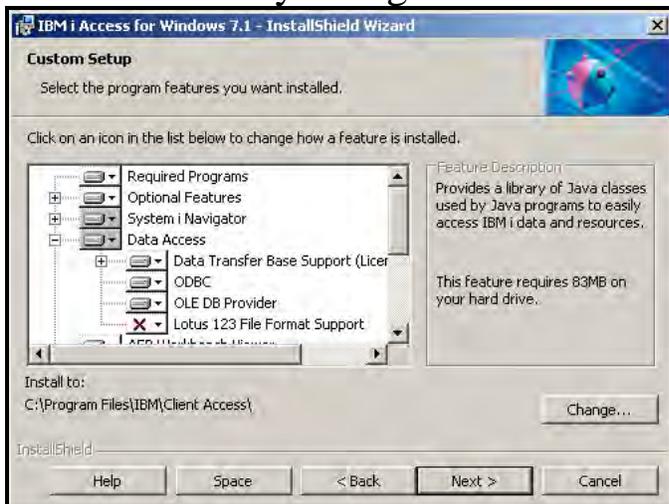
Select Custom. Click on Next to continue.



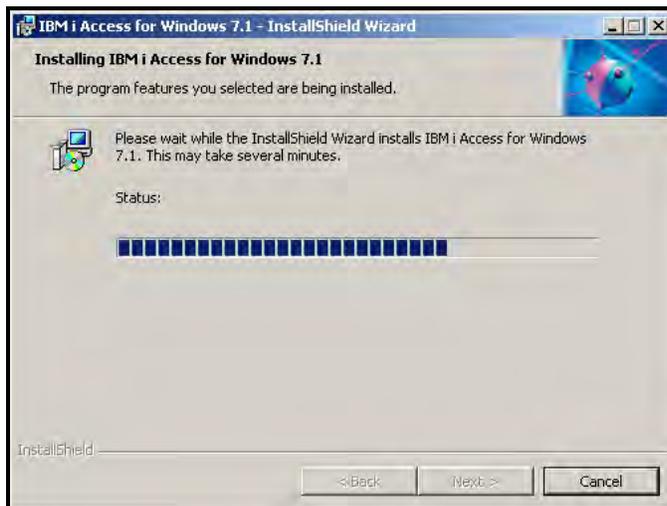
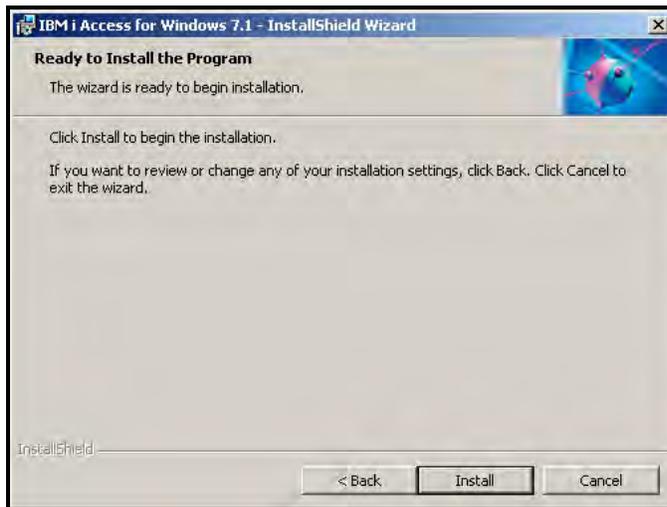
You will receive this screen when selecting the Complete or Custom install. Click on Next to continue.



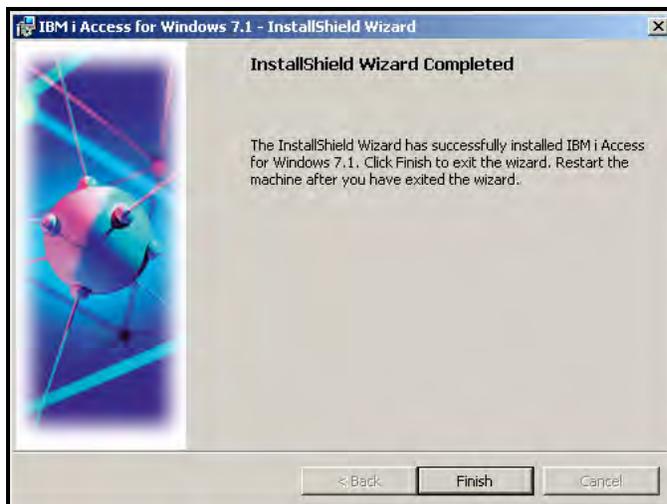
Do not make any changes. Click Next to continue.



## Click on Install.



## Click on Finish.



Open System i Navigator by going to Start\All Programs\IBM i Access for Windows.



Click on Yes to create connection.

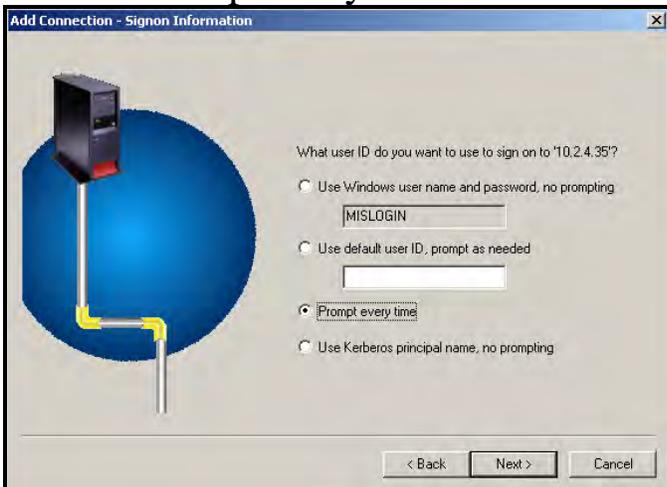


Enter 10.2.4.35 for Accounting and 10.2.4.36 for everyone else. "as400" for Description.

Click on Next to continue.



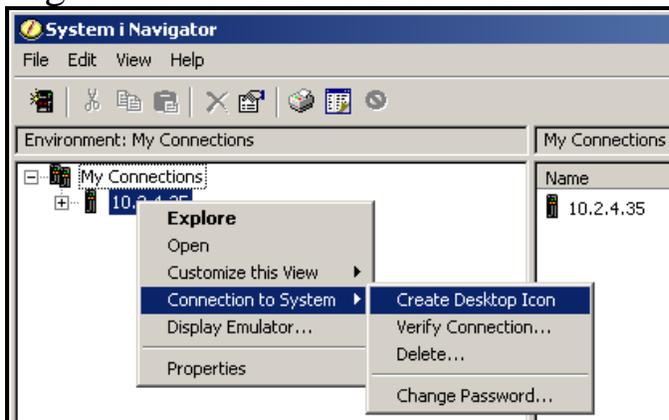
Select "Prompt every time". Click Next to continue.



Click on Finish.



Right click on the new connection then select “Create Desktop Icon”.



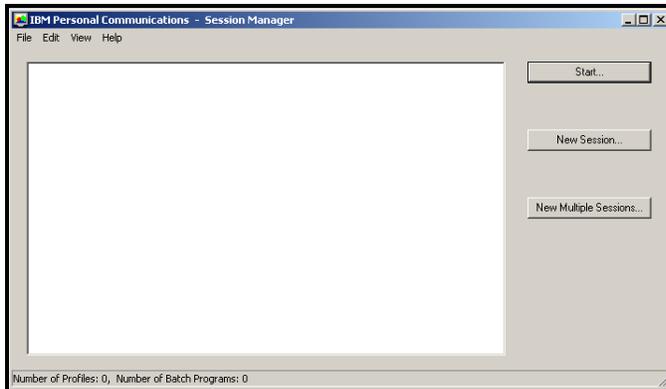
Click OK to continue.



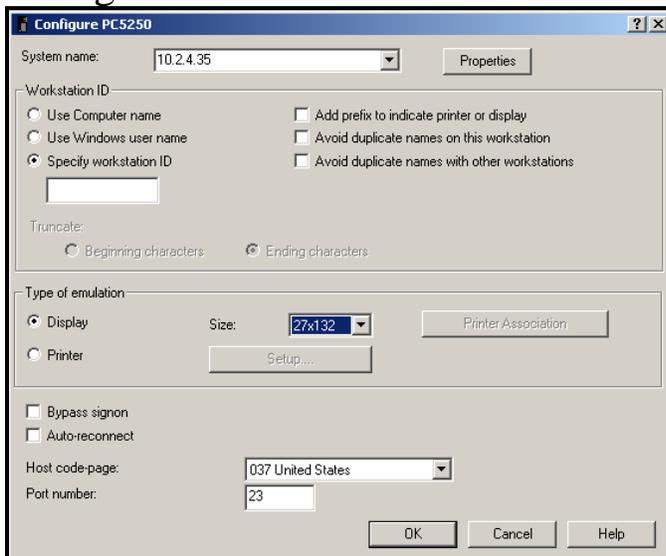
Open the Start or Configure Session by going to Start\All Programs\IBM i Access for Windows\Emulator\Start or Configure Session.



Click on New Session.



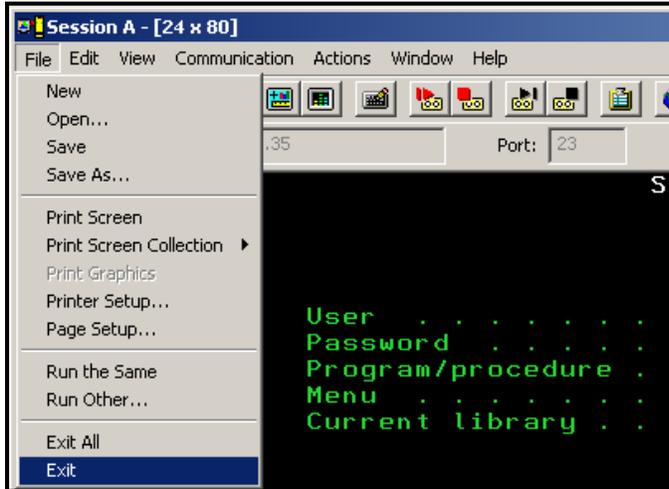
Change the Size to 27x132. Click OK to continue.



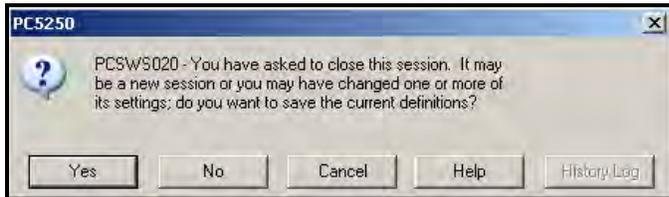
Sign on with your Sandis User Name and Password.



Exit the session.



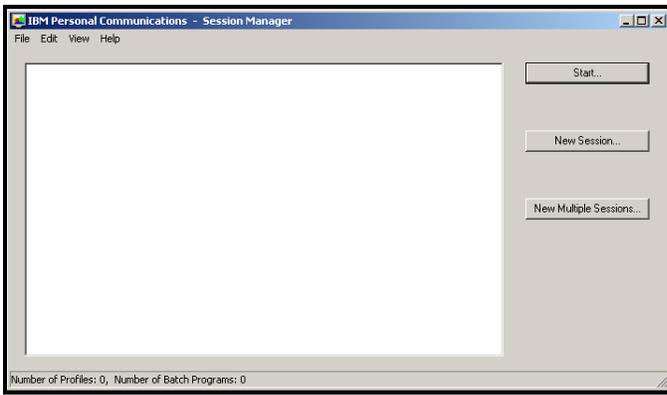
Click Yes to save the session.



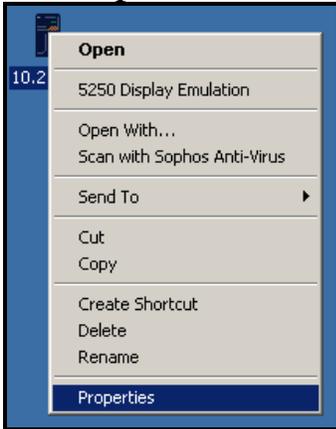
Save as "i5.ws" in My Documents. Click Save to continue.



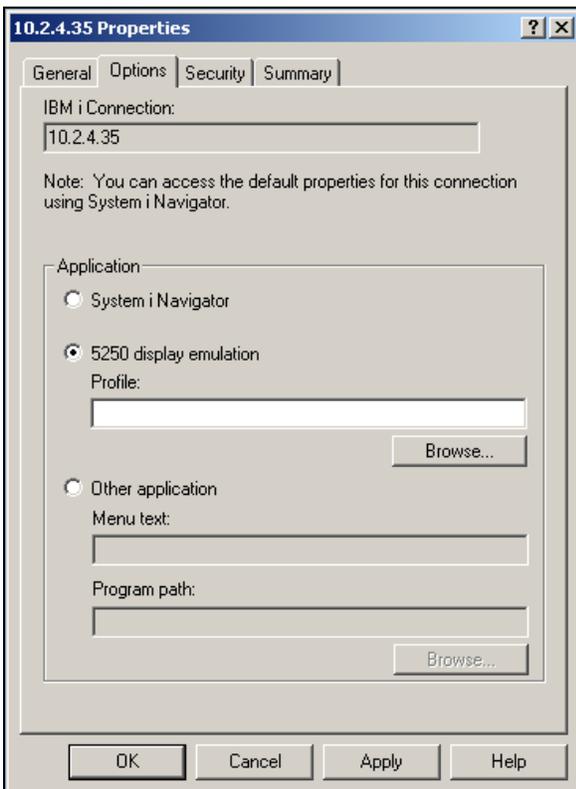
Exit from this window.



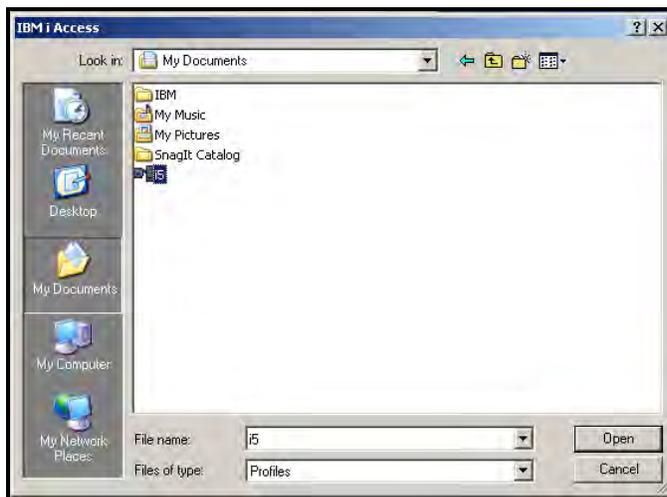
From the Desktop, right click on the i Access session shortcut. Click on Properties.



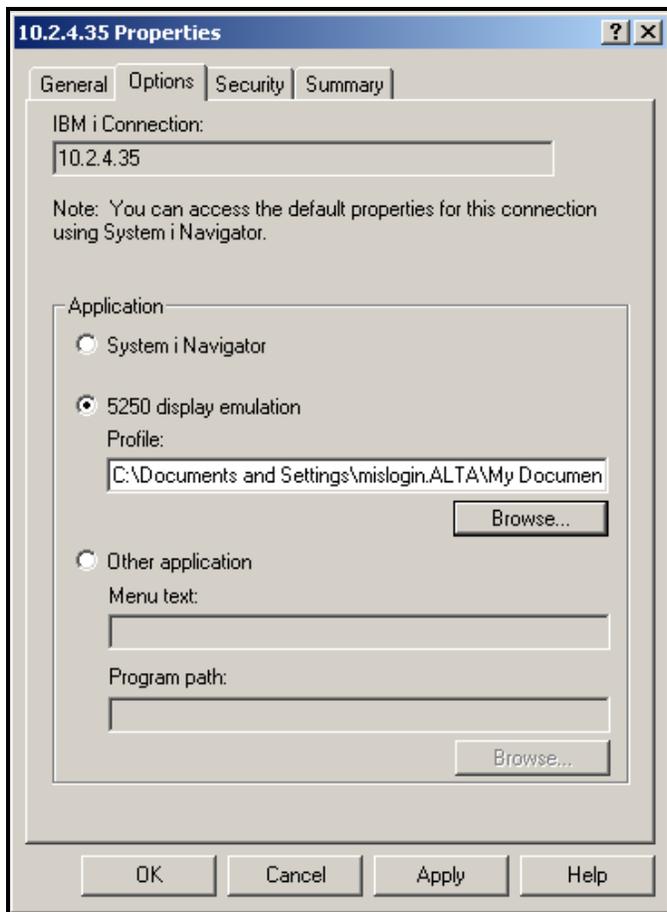
From the Options tab, select "5250 display emulation". Click on Browse.



Browse to the “i5.ws” file in the My Documents folder. Click Open to continue.



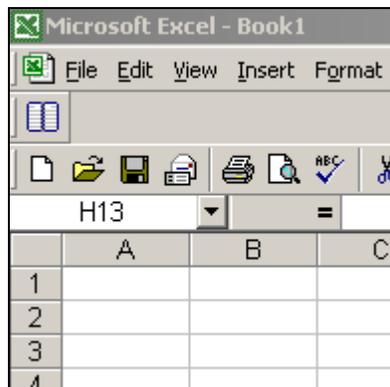
Click on OK to close.



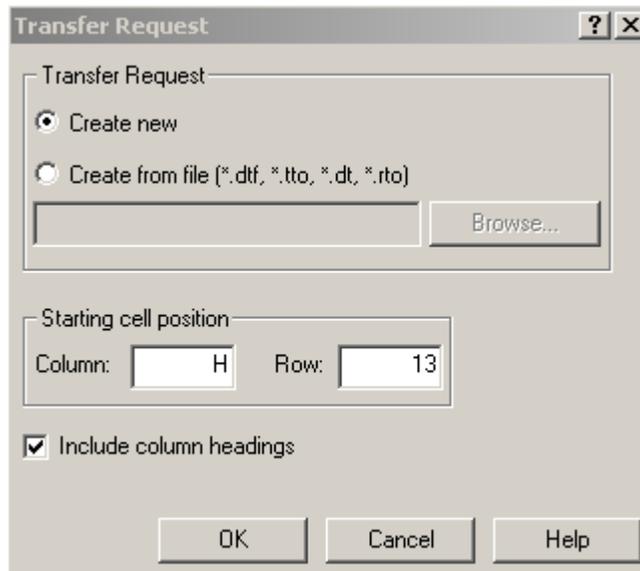
That concludes the installation process.

# Importing an AS400 table into Microsoft Excel

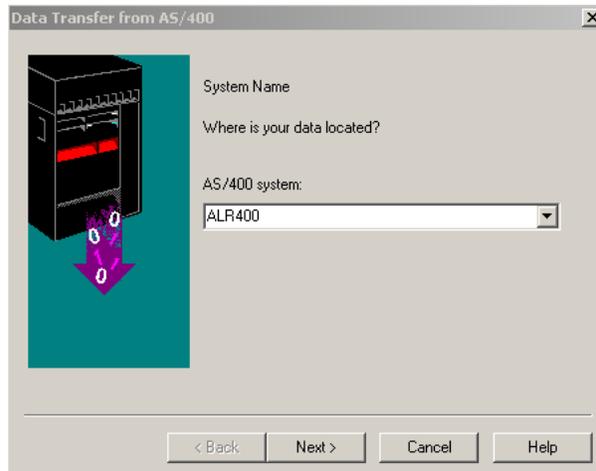
1. The computer must have IBM Client Access installed
2. On the View menu select Toolbars then Client Access
3. You will now have a toolbar with an icon that resembles an open book
4. (If you let the mouse hover over it you will see the title, Transfer Data From AS/400)



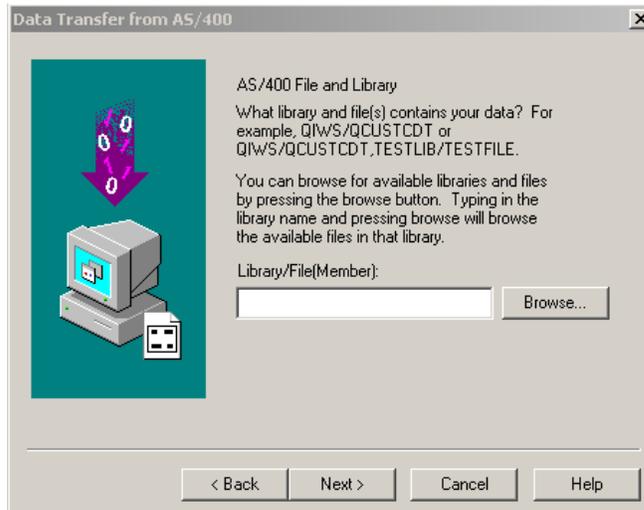
5. Click the **Create New** radio button
6. Click **OK**



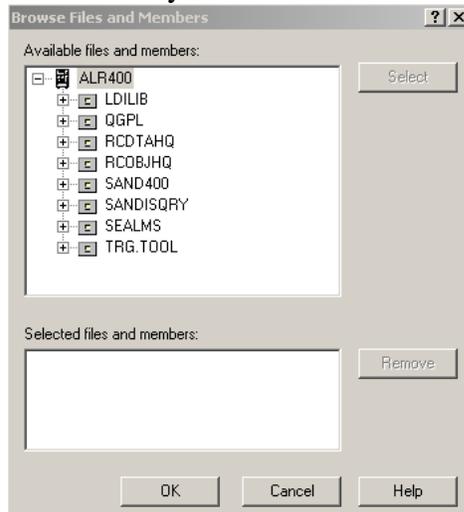
7. Click **Next**



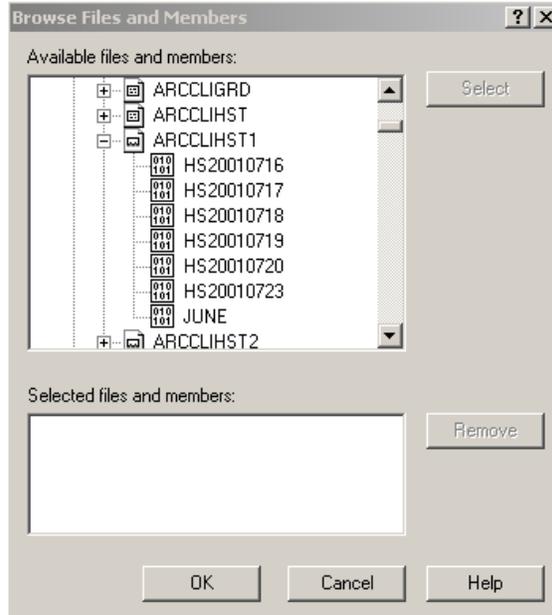
8. Click **Browse**



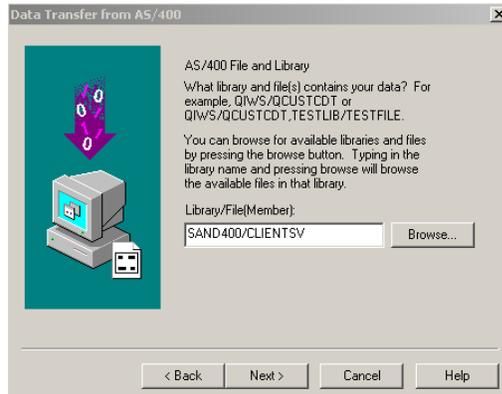
9. Select the Library that contains the table you want to import



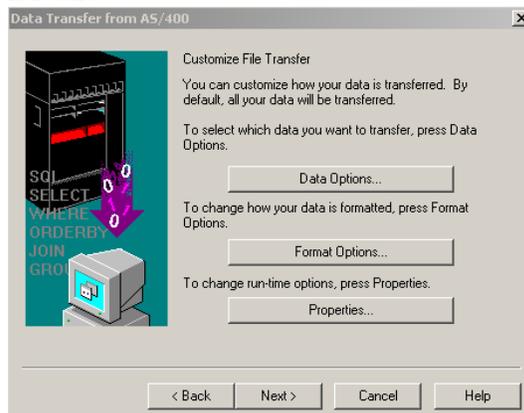
10. Select the file you need or click on the + sign and select the member files you need
11. Click **OK**



12. Click **Next**

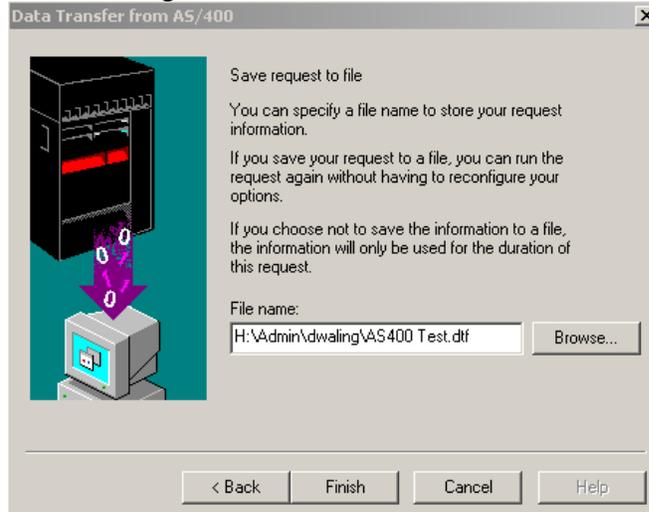


13. Click **Next**

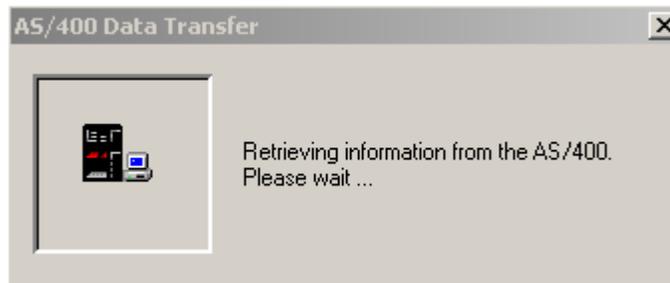


14. Click **Finish**

15. The data will begin to transfer



16. Wait while the data is transferred. This could take several minutes.



17. Once the transfer is completed you will have a copy of the data on the AS/400  
You can manipulate the data but can not save it back to the AS400

# IPL (Reboot the i5)

## Normal IPL:

1. At a command prompt enter **PWRDWNSYS** and press **F4**

Change **Controlled end delay time** to: **300** (300 seconds is 5 minutes)  
Change **Restart after power down** to: **\*YES**

2. Press Enter

```
Power Down System (PWRDWNSYS)

Type choices, press Enter.

How to end . . . . . *CNTRLD      *CNTRLD, *IMMED
Controlled end delay time . . . 300          Seconds, *NOLIMIT
Restart options:
  Restart after power down . . . *YES       *NO, *YES
  Restart type . . . . . *IPLA         *IPLA, *SYS, *FULL
IPL source . . . . . *PANEL          *PANEL, A, B, D, *IMGCLG
```

## “B” IPL (use only when applying firmware PTFs):

1. On the front panel of the i5 press the down arrow until the display reads “02” then press the center (enter) button.
2. Press the down arrow until the panel reads “B” and press the center (enter) button.
3. Press the down arrow until the panel reads “T” and press the center (enter) button.
4. The display should now read “02 B N T”

5. At a command prompt enter **PWRDWNSYS** and press **F4**

Change **Controlled end delay time** to: **300** (300 seconds is 5 minutes)  
Change **Restart after power down** to: **\*YES**

6. Press Enter

```
Power Down System (PWRDWNSYS)

Type choices, press Enter.

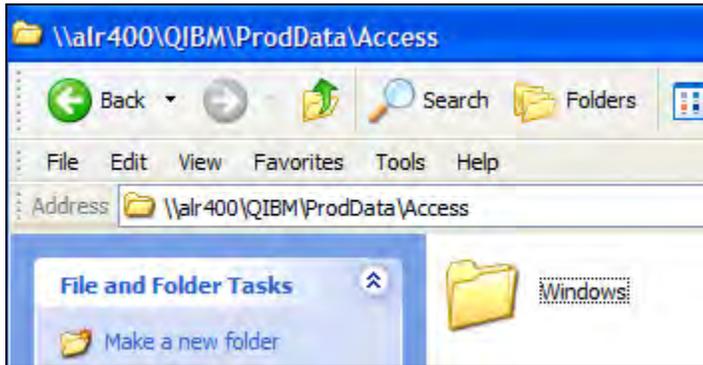
How to end . . . . . *CNTRLD      *CNTRLD, *IMMED
Controlled end delay time . . . 300          Seconds, *NOLIMIT
Restart options:
  Restart after power down . . . *YES       *NO, *YES
  Restart type . . . . . *IPLA         *IPLA, *SYS, *FULL
IPL source . . . . . *PANEL          *PANEL, A, B, D, *IMGCLG
```

# IBM iSeries Access Software

The latest version of Client Access Express – or iSeries Access – will be on the i5. As the i5 gets automatic updates, new PTFs, or version upgrades this copy of Client Access will be upgraded as well.

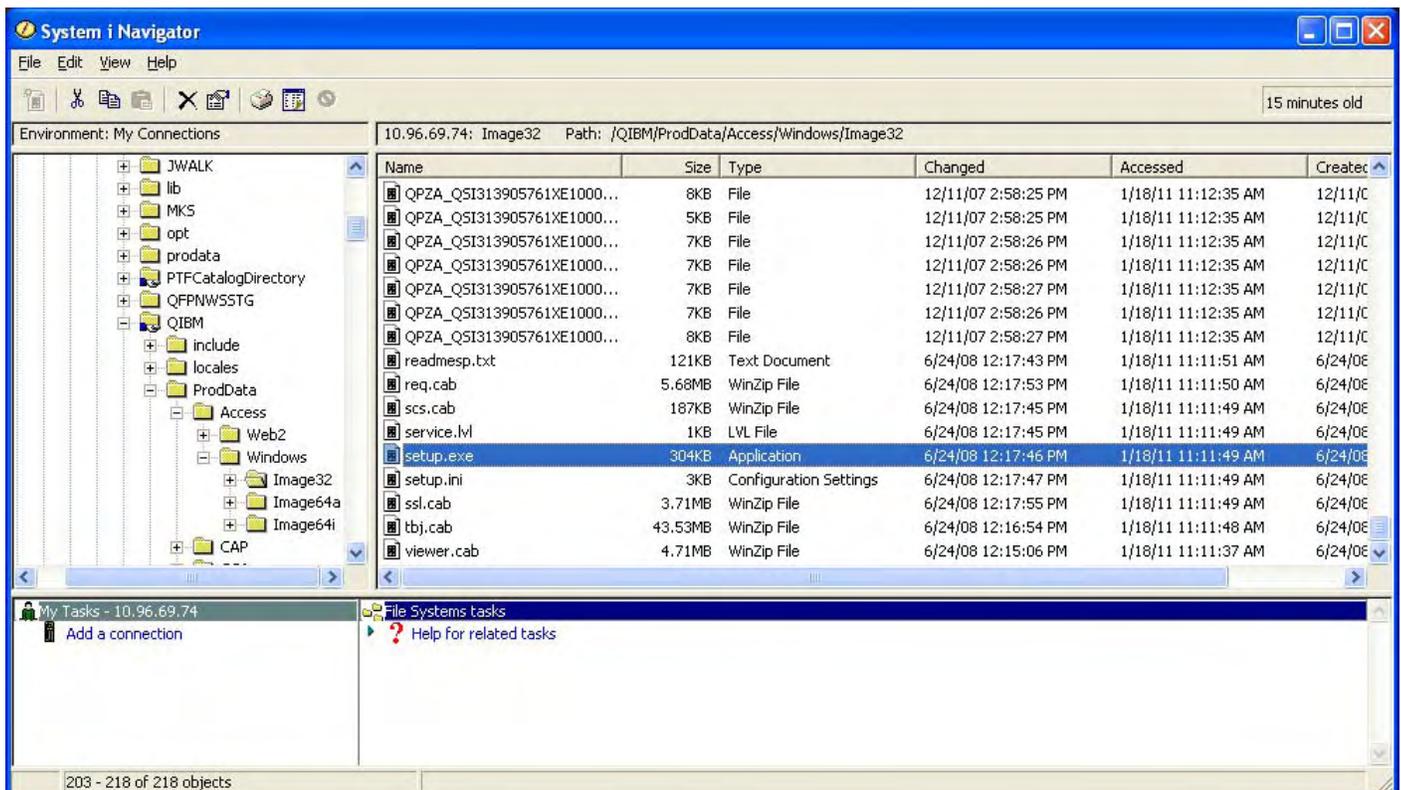
Client Access can be copied from the following location onto a Windows server for distribution.

<\\alr400\QIBM\ProdData\Access> The folder called Windows contains the Client Access files for Windows.



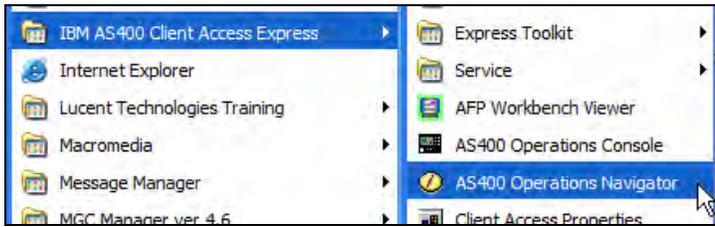
- or -

(IFS view showing QIBM/ProdData/Access/Windows/Image32...)



# iSeries Navigator- Printer Tasks

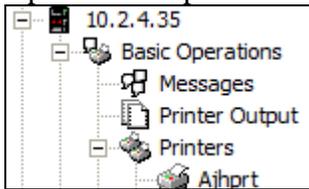
Open The IBM iSeries Navigator



Log on using your I5 User ID and Password.

## Printers and Print Jobs:

Open Basic Operations and then Printers.



Select a printer to display the documents (print jobs) for that printer in the right-hand window.

	Output name	User-specified data	User	Status	Printer	Pages per copy	Copies left	Time created	Date created
Prt32									
Prt33	Ps035a01	PS035A	ALDBTERR	Held	PRT33	8	1	12:29:23	12/02/05
Prt34	Prt152	RL033D	ALAALYNN	Printed and kept	PRT33	8	1	19:45:15	05/02/06
Prt35	Ps035a01	PS035A	ALDBTERR	Held	PRT33	9	1	11:36:47	12/02/05
Prt36	Prt152	RL033D	ALAALYNN	Printed and kept	PRT33	10	1	19:45:17	04/28/06
Prt37	Prt152	RL033A	ALAALYNN	Printed and kept	PRT33	10	1	19:45:15	05/05/06

From the **File** menu in the iSeries Navigator, there are several options which apply to the selected document.

Most have a corresponding icon on the tool bar.

**Open** Open the selected print job. Once open you can print or view it.

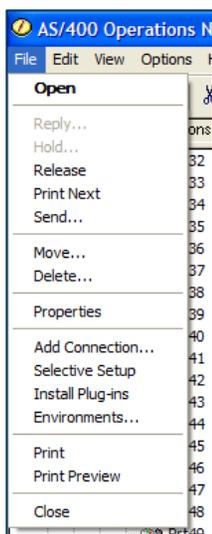
**Reply** Reply to Messages.

**Hold** Put the print job on Hold.

**Release** Release job to begin printing.

**Delete** Delete the print job.

**Note:** Print and Print Preview menu items are for printing a list of print jobs. To print or view a specific job, you must first open it.



## Print a specific document:

Open the document by doing one of the following:

Double click the document.

From the **File** menu click **Open**.

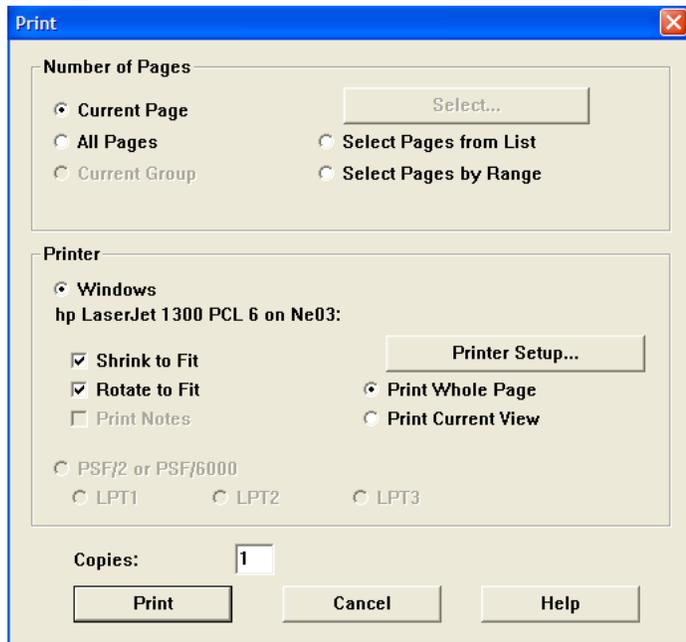
The Viewer window will open and the document will be displayed. Large documents will take some time.

In the Viewer window use the **File** menu and select **Print**.

The Print options window will open.

Click **Print** to print the entire document.

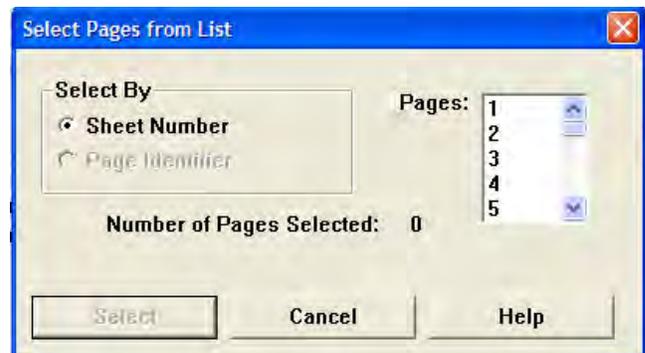
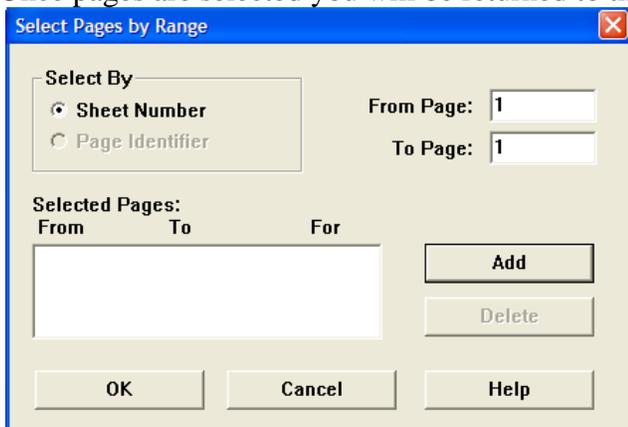
To print specific pages mark **Select Pages from a List** or **Select Pages by Range** then click the **Select** button.



To select a range of pages enter the **From Page** and **To Page**, click the **Add**, and then click **Select**.

To select specific pages select each page you want in the **Pages:** window then click **Select**.

Once pages are selected you will be returned to the print window. Click **Print** to print the selected pages.



## Move or Copy (Send) a document to a different printer:

Open Basic Operations and then Printers.

Select a printer to display the documents for that printer in the right-hand window.

	Output name	User-specified data	User	Status	Printer	Pages per copy	Copies left	Time created	Date created
Prt32									
Prt33	Ps035a01	PS035A	ALDBTERR	Held	PRT33	8	1	12:29:23	12/02/05
Prt34	Prt152	RL033D	ALAALYNN	Printed and kept	PRT33	8	1	19:45:15	05/02/06
Prt35	Ps035a01	PS035A	ALDBTERR	Held	PRT33	9	1	11:36:47	12/02/05
Prt36	Prt152	RL033D	ALAALYNN	Printed and kept	PRT33	10	1	19:45:17	04/28/06
Prt37	Prt152	RL033A	ALAALYNN	Printed and kept	PRT33	10	1	19:45:15	05/05/06

Move a document:

Select a document to be moved and drag it to the printer in the right-hand column that you want it moved to. The document will be moved to the destination printer. For large documents this could take some time.

Copy a document:

Select a document to be copied and drag it to the destination printer using the right-hand mouse button instead of the normal left-hand button. When you drop the document into the destination printer you will be given the option of Move Here or Copy Here. Select Copy Here and a copy of the document will be added to the printer.

## Delete a document:

Open Basic Operations and then Printers.

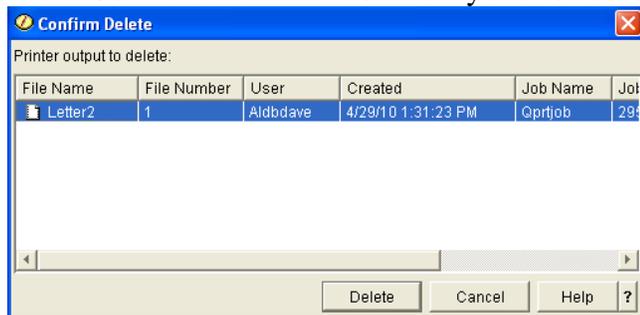
Select a printer to display the documents for that printer in the right-hand window.

	Output name	User-specified data	User	Status	Printer	Pages per copy	Copies left	Time created	Date created
Prt32									
Prt33	Ps035a01	PS035A	ALDBTERR	Held	PRT33	8	1	12:29:23	12/02/05
Prt34	Prt152	RL033D	ALAALYNN	Printed and kept	PRT33	8	1	19:45:15	05/02/06
Prt35	Ps035a01	PS035A	ALDBTERR	Held	PRT33	9	1	11:36:47	12/02/05
Prt36	Prt152	RL033D	ALAALYNN	Printed and kept	PRT33	10	1	19:45:17	04/28/06
Prt37	Prt152	RL033A	ALAALYNN	Printed and kept	PRT33	10	1	19:45:15	05/05/06

Select the document to be deleted.

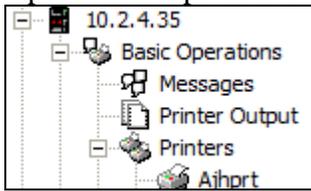
From the **File** menu select Delete or click the black "X" on the toolbar.

In the Confirm Delete window verify the correct document is listed then click **Delete**.



## Answer Printer Messages:

Open Basic Operations and then Printers.



If a printer is waiting for a message it will have a “word balloon” along with the printer icon.



The list of documents in the right-hand window will indicate which document (print job) has the message.

File Name	User-specified Data	User	Status	Output Queue
Qptapdsp		Aldbterr	Message waiting	Prt33
Sc030a01	SC030A	ALAALYNN	Held	Prt33

Select the printer or the document that has the message.

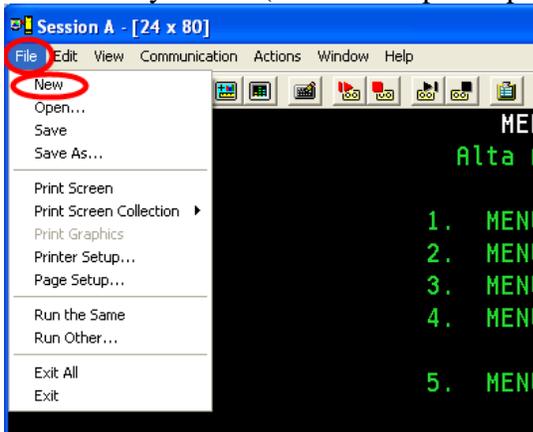
From the **File** menu select Reply or click on the reply button  on the toolbar.

	Output name	User-specified data	User	Status	Printer	Pages per copy	Copies left	Time created	Date created
Prt32									
Prt33	Ps035a01	PS035A	ALDBTERR	Held	PRT33	8	1	12:29:23	12/02/05
Prt34	Prt152	RL033D	ALAALYNN	Printed and kept	PRT33	8	1	19:45:15	05/02/06
Prt35	Ps035a01	PS035A	ALDBTERR	Held	PRT33	9	1	11:36:47	12/02/05
Prt36	Prt152	RL033D	ALAALYNN	Printed and kept	PRT33	10	1	19:45:17	04/28/06
Prt37	Prt152	RL033A	ALAALYNN	Printed and kept	PRT33	10	1	19:45:15	05/05/06

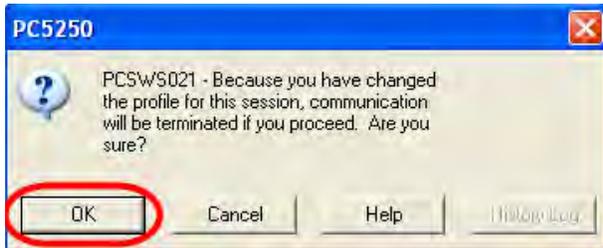
From the **File** menu in the iSeries Navigator, there are several options which apply to the selected print job

# Configuring a Local Printer as an i5 Printer

Log onto the I5 as yourself (must have special permissions)



Click OK

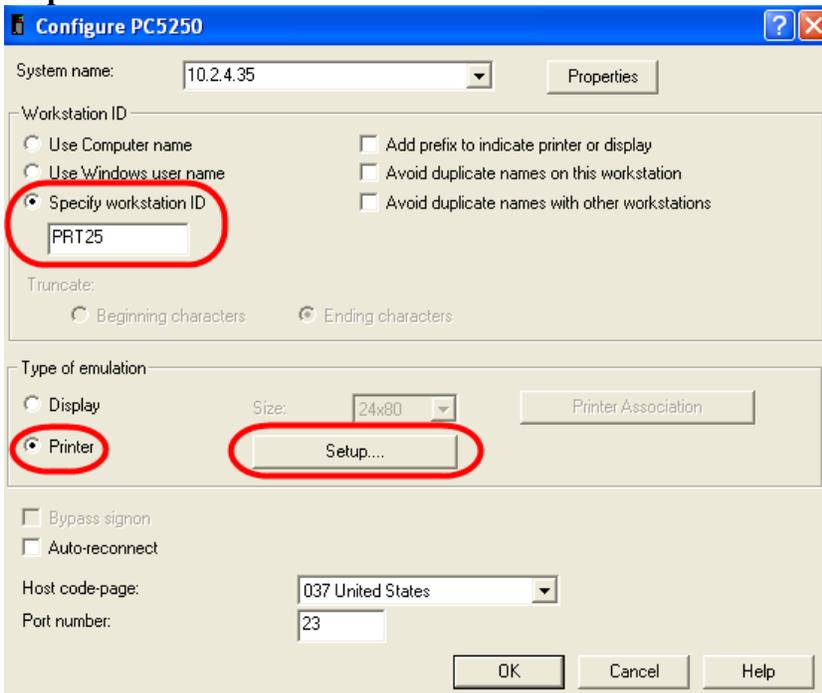


On the Configure PC5250 window:

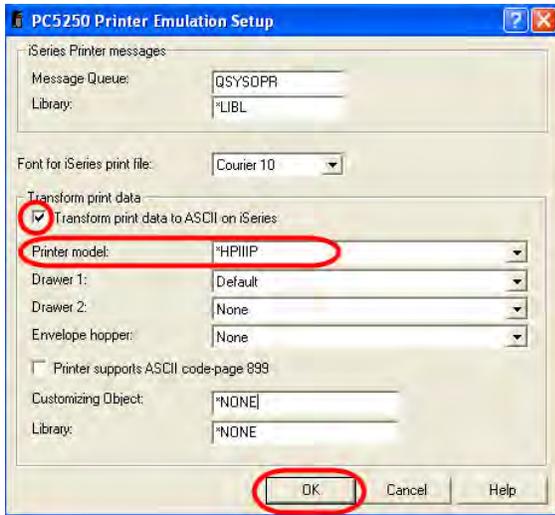
Enter the printer name (the system will assign the next available number if you don't specify a name).

Under Type of Emulation, Select the "Printer" radio button.

Click **Setup**.

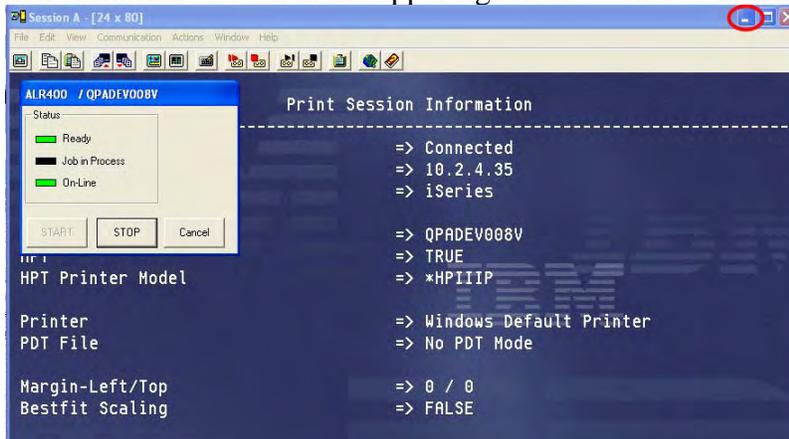


Click to put a checkmark in **Transform print data to ASCII on iSeries**.  
 Use the down box for Printer model: and select a printer (**HP IIP** works for most printers).  
 Click **OK**.



You will return to the Configure PC5250 window  
 Click **OK** again

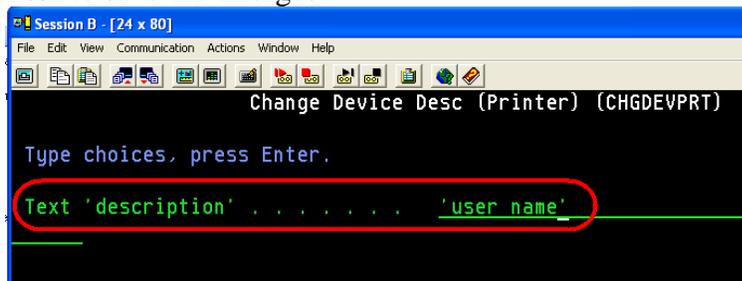
The printer has been created and you should get the following window.  
 Click on the Minimize button in the upper right hand corner to minimize the window.



Start another Client Access session (log on to i5 again leaving the previous one minimized)  
 Enter the command **wrkdevd prt\*** or **wrkdevd prt25** (typing the entire printer name)

Scroll to the printer you just created and enter a **2** in front of it to change the printer description.

Scroll down to the printer description and enter a description.  
 Press **Enter** to save the changes.



Press **F3** again to return to your main menu.

Configure the users default printer to be the one you just created.

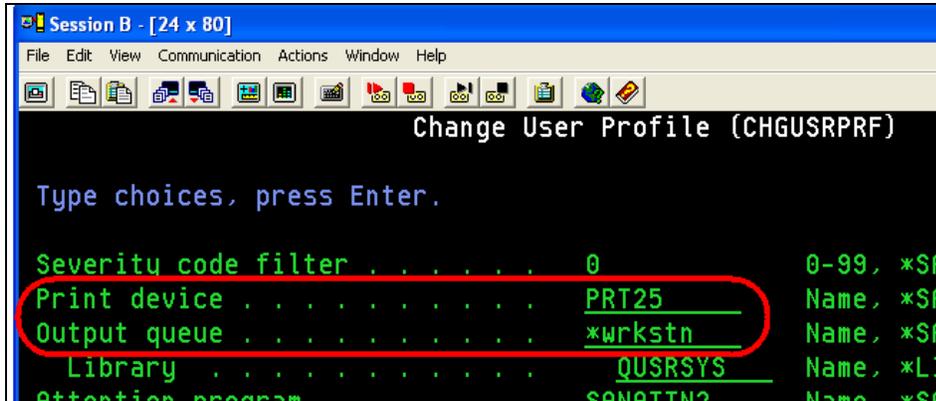
Enter **wrkusrprf <user name>**

Enter a **2** in front of the user to change the profile.

Press **F10**

Scroll to the Print device and enter the name of the printer you just created.

Output Queue should be \*WRKSTN



Press **Enter** to save the changes

Press **F3** to return to the main menu

Sign off the I5.

## Create a shortcut on the user's desktop for the printer session:

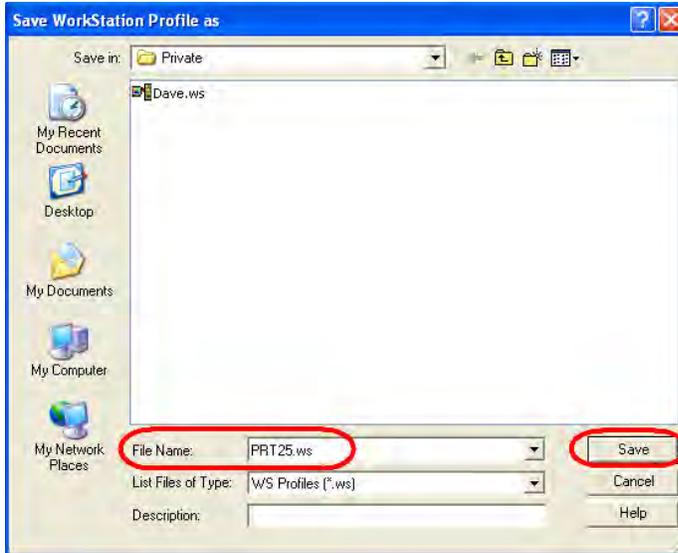
Open the printer session.

From the **File** menu select **Save As**.



Save the file on the Desktop or in the default location and call it Local Printer or whatever you like. The file extension is ".WS"

Click **Save**.



If you saved the printer session in the IBM folder, you can create a shortcut to it for the desktop just like any other Windows shortcut.

If you want the printer session to start every time the computer boots up put the shortcut into the Startup Folder in the Windows Taskbar.

Configure AS/400 client access PTF software Patch

Go to the i5 client access PTF Software patch folder in \\alta main\alta\drivers folder and run setup.

A copy is also located in \ \alta \_main \is\i5 folder.

## Lock All Users out of the AS/400

**Use the AS/400 system console only!**  
**Log on as sysopr user type**

Menu item **13 Communications**

From the Work with All communication devices menu end or start the QINTER subsystem.

This will stop any new connections but will not affect the console from logging into the AS/400. Users already logged on will remain connected. DDS will not be able to access the system. To allow users to log back on all that's necessary is to start the subsystem again.

Lock users out:

Menu item **16 - End QINTER subsystem.**

Allow Users to Log In:

Menu Item **6 - Start QINTER subsystem.**

Lock users out and terminate all actively connected users (except console):

On the command line enter: ENDSBS QINTER \*IMMED

**Alternatively use the procedure for taking the Ethernet1 device out of service**  
**See the procedure titled "AS/400 Ethernet"**

This will allow the console and DDS to access the system but not local users. TCP, SANDIS licensing must be stopped and restarted with this procedure.

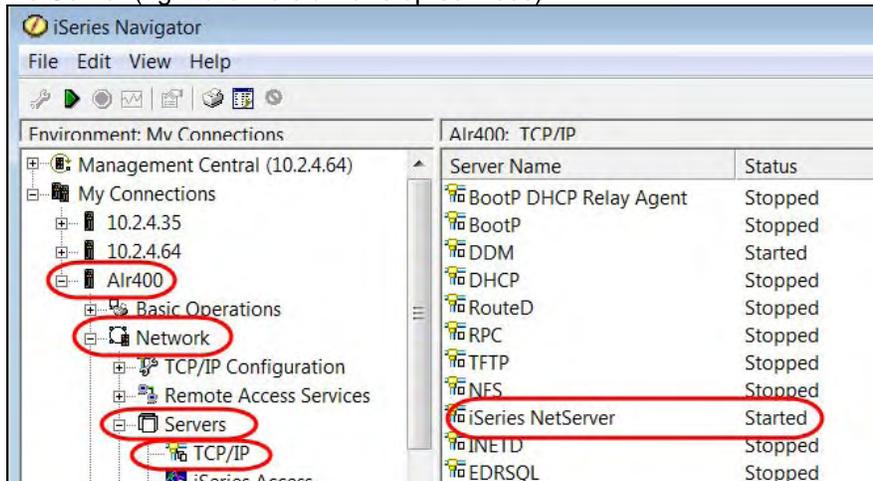
## Mapping a Drive to the I5 on a Windows PC

This is a two step process. Create a share on the AS400 then on a PC map a network drive to that share.

### NetServer Must be Started on the i5

Network Services must be running on the I5 to enable the i5 to share files with Windows.

To check its status or configuration start iSystem Navigator. Select Network, Servers, TCP/IP, then iSeries NetServer (right click to start or stop services)



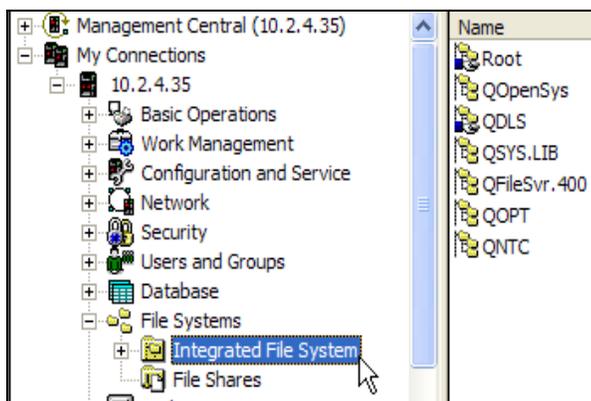
The NetServer can also be started on the Command line by entering: **strtcpsvr \*netsvr**

## Creating a Windows Network Share on the I5

Open IBM Client Access Operations Manager.

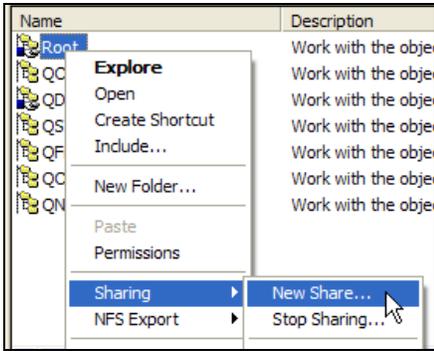
Expand the I5 then File System.

Click once to select **Integrated File System** and browse to the folder you want to share.



In the right-hand window, right click the folder you want to share.  
Select **Sharing** then **New Share...**

Note: Select Root to share the entire file system.

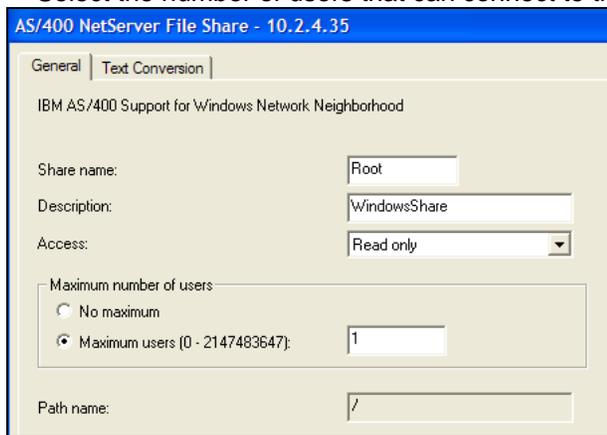


On the NetServer File Share window enter:

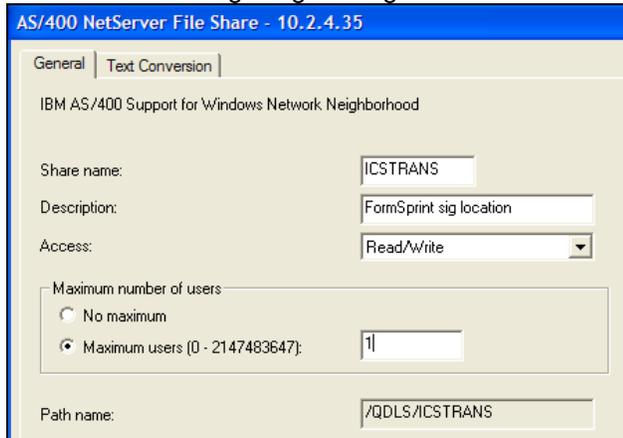
Description (Name of the share to be used when mapping drives to the I5)

Select the Access you need (Read only or Read and Write) be cautious about granting write access.

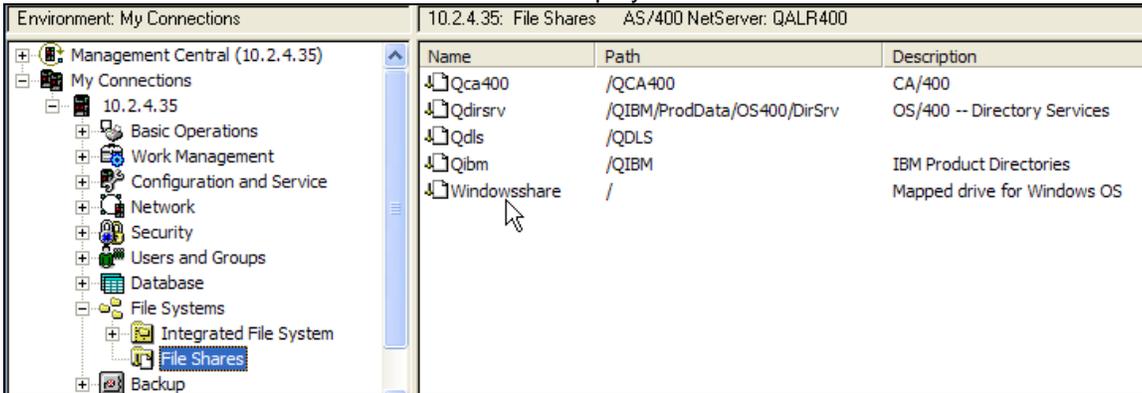
Select the number of users that can connect to the share. I specified one person to help restrict it a bit.



Note: Check Writing Program Signatures are in QDLS\ICSTRANS so can make a Read/Write Share here.



On the File Shares menu the new share will be displayed.



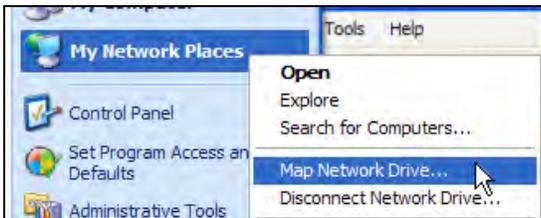
## Mapping a Windows Network Drive to the I5 Share

Start Network Services (must be enabled on the I5 to enable Windows to connect.)

On the I5 Command line enter: **strtcpsvr \*netsvr**

From the Start menu, desktop, or My Computer, right click **My Network Places**.

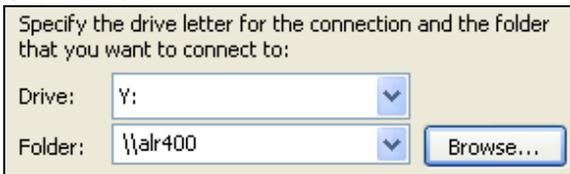
Select **Map Network Drive...**



Select a drive letter and enter the name of your i5 (for example: \\alr400) and click **Browse**.

You can also enter the full path (for example \\alr400\ *name of the folder on the i5*).

Click **Finish**.



# Network Interfaces – Status, Stop & Start, Routes, etc.

On the command line enter **NETSTAT**.

```
Work with TCP/IP Network Status

Select one of the following:

1. Work with TCP/IP interface status
2. Display TCP/IP route information
3. Work with TCP/IP connection status
4. Work with IPv6 interface status
5. Display IPv6 route information
6. Work with IPv6 connection status
```

## Check Status

Take Option 1. Work with TCP/IP Interface Status

```
Work with TCP/IP Network Status

Select one of the following:

1. Work with TCP/IP interface status
2. Display TCP/IP route information
```

```
Work with TCP/IP Interface Status                               System: ALR400
Type options, press Enter.
5=Display details  8=Display associated routes  9=Start  10=End
12=Work with configuration status  14=Display multicast groups

  Internet      Network      Line      Interface
Opt Address      Address      Description Status
--  -
  10.2.4.35     10.2.4.0    ETHLININT Active
  10.2.4.36     10.2.4.0    ETHLININT Active
  127.0.0.1     127.0.0.0   *LOOPBACK Active
  158.96.129.114 158.96.129.112 ETHLINWEB Active
  158.96.129.115 158.96.129.112 ETHLINWEB Active

Bottom
F3=Exit  F9=Command line  F11=Display line information  F12=Cancel
F13=Sort by column  F20=Work with IPv6 interfaces  F24=More keys
```

For additional detail about an interface, select it and take option 5. Display details.

```
Display TCP/IP Interface Status                               System:
Interface host name . . . . . :
Internet address . . . . . : 10.2.4.35
Subnet mask . . . . . : 255.255.255.0
Network address . . . . . : 10.2.4.0
Host address . . . . . : 0.0.0.35
Directed broadcast address . . . . . : 10.2.4.255
Interface status . . . . . : Active
Change date/time . . . . . : 10/16/06 19:57:44
Line description . . . . . : ETHLININT
Line type . . . . . : *ELAN
Associated local interface . . . . . : *NONE
Type of service . . . . . : *NORMAL
Maximum transmission unit . . . . . : 1492
Automatic start . . . . . : *YES
Alias name . . . . . : *NONE
Alias name CCSID . . . . . : 0
```

For information about an interface's routing, select it and take option 8. Display Associated Routes.

```

Display Associated Routes
System:
Interface internet address . . . . . : 10.2.4.35

Type options, press Enter.
5=Display details

  Opt  Route      Subnet      Next      Route
  Destination  Mask        Hop        Available
- 10.2.4.0      255.255.255.0 *DIRECT   *YES
- 10.2.90.157  *HOST       10.2.4.4  *YES
- 10.2.80.230  *HOST       10.2.4.4  *YES
- 10.2.80.223  *HOST       10.2.4.4  *YES
- 10.2.80.211  *HOST       10.2.4.4  *YES
- 10.2.80.198  *HOST       10.2.4.4  *YES
- 10.2.80.176  *HOST       10.2.4.4  *YES
- 10.2.60.180  *HOST       10.2.4.4  *YES
- 10.2.20.5    *HOST       10.2.4.4  *YES
- 10.2.10.150  *HOST       10.2.4.4  *YES
- 10.2.254.0   255.255.255.0 10.2.4.1  *YES

```

For information about an interface's routing, select it and take option 12. Work with configuration status.  
 Note: ETHLININT = Internal LAN (10.2.4.35 and 10.2.4.36) 1 GB

```

Work with Configuration Status
ALR400
10/18/06 08:05:3
Position to . . . . . Starting characters

Type options, press Enter.
1=Vary on 2=Vary off 5=Work with job 8=Work with description
9=Display mode status 13=Work with APPN status...

  Opt  Description      Status      -----Job-----
- ETHLININT      ACTIVE
- ETHCLINT      ACTIVE
- ETHDEVINT      ACTIVE      QTCTPIP      QTCP      008498

```

**Display TCP Routes**

Take Option 2. Display TCP/IP route information.

```

Work with TCP/IP Network Status

Select one of the following:

1. Work with TCP/IP interface status
2. Display TCP/IP route information
3. Work with TCP/IP connection status

```

```

Display TCP/IP Route Information
System:
Type options, press Enter.
5=Display details

  Opt  Route      Subnet      Next      Route
  Destination  Mask        Hop        Available
- 10.2.4.0      255.255.255.0 *DIRECT   *YES
- 10.2.4.0      255.255.255.0 *DIRECT   *YES
- 10.2.254.62  *HOST       10.2.4.6  *YES
- 10.2.254.60  *HOST       10.2.4.6  *YES
- 10.2.90.165  *HOST       10.2.4.4  *YES
- 10.2.90.157  *HOST       10.2.4.4  *YES
- 10.2.80.230  *HOST       10.2.4.4  *YES
- 10.2.80.227  *HOST       10.2.4.4  *YES
- 10.2.80.223  *HOST       10.2.4.4  *YES
- 10.2.80.219  *HOST       10.2.4.4  *YES
- 10.2.80.215  *HOST       10.2.4.4  *YES
- 10.2.80.211  *HOST       10.2.4.4  *YES
- 10.2.80.198  *HOST       10.2.4.4  *YES

F3=Exit F5=Refresh F9=Command line F11=Display route type
F13=Sort by column F20=Display IPv6 routes F24=More keys

```

Take Option 5 to Display details for a specific route

```

Display TCP/IP Route Details
System:
Route information:
Route destination . . . . . : 10.2.4.0
Subnet mask . . . . . : 255.255.255.0
Next hop host name . . . . . :
Type of service . . . . . : *DIRECT
Route available . . . . . : *YES
Route type . . . . . : *DIRECT
Route source . . . . . : *CFG
Change date/time . . . . . : 10/16/08 19:57:47
Route maximum transmission unit . . . . . : 1492

Associated interface information:
Route to interface binding type . . . . . : *FIXED
Interface status . . . . . : Active
Interface address . . . . . : 10.2.4.35

Network address . . . . . : 10.2.4.0
Subnet mask . . . . . : 255.255.255.0
Line description . . . . . : ETHLININT
Line type . . . . . : *ELAN

```

Press F11 to Display route type.

```

Type options, press Enter.
5=Display details

```

Opt	Route Destination	Type of Service	Route MTU	Route Type	Route Source
-	10.2.4.0	*NORMAL	1492	*DIRECT	*CFG
-	10.2.4.0	*NORMAL	1492	*DIRECT	*CFG
-	10.2.254.60	*NORMAL	1492	*HOST	*ICMP
-	10.2.90.161	*NORMAL	1492	*HOST	*ICMP
-	10.2.90.157	*NORMAL	1492	*HOST	*ICMP
-	10.2.90.152	*NORMAL	1492	*HOST	*ICMP
-	10.2.80.223	*NORMAL	1492	*HOST	*ICMP
-	10.2.80.219	*NORMAL	1492	*HOST	*ICMP
-	10.2.80.211	*NORMAL	1492	*HOST	*ICMP
-	10.2.80.181	*NORMAL	1492	*HOST	*ICMP
-	10.2.80.150	*NORMAL	1492	*HOST	*ICMP
-	10.2.60.177	*NORMAL	1492	*HOST	*ICMP
-	10.2.50.159	*NORMAL	1492	*HOST	*ICMP

Press F11 again to show Next Hop.

```

Type options, press Enter.
5=Display details

```

Opt	Route Destination	Subnet Mask	Next Hop	Route Available
-	10.2.4.0	255.255.255.0	*DIRECT	*YES
-	10.2.4.0	255.255.255.0	*DIRECT	*YES
-	10.2.254.60	*HOST	10.2.4.6	*YES
-	10.2.90.161	*HOST	10.2.4.4	*YES
-	10.2.90.157	*HOST	10.2.4.4	*YES
-	10.2.90.152	*HOST	10.2.4.4	*YES
-	10.2.80.223	*HOST	10.2.4.4	*YES
-	10.2.80.219	*HOST	10.2.4.4	*YES
-	10.2.80.211	*HOST	10.2.4.4	*YES
-	10.2.80.181	*HOST	10.2.4.4	*YES
-	10.2.80.150	*HOST	10.2.4.4	*YES
-	10.2.60.177	*HOST	10.2.4.4	*YES
-	10.2.50.159	*HOST	10.2.4.4	*YES

## TCP/IP Connection Status (Ports)

Take Option 3. Work with TCP/IP connection status

1. Work with IPv4 interface status
2. Display IPv4 route information
3. Work with IPv4 connection status
4. Work with IPv6 interface status

```

Work with TCP/IP Connection Status
System: ALR400
Type options, press Enter.
3=Enable debug 4=End 5=Display details 6=Disable debug
8=Display jobs

  Remote      Remote      Local
Opt Address    Port        Port        Idle Time  State
-  *          *          ftp-con >  045:18:14 Listen
-  *          *          telnet    000:14:44 Listen
-  *          *          smtp      045:14:13 Listen
-  *          *          www       008:14:55 Listen
-  *          *          pop3      045:14:18 Listen
-  *          *          netbios > 045:14:33 Listen
-  *          *          netbios > 000:00:12 *UDP
-  *          *          netbios > 000:00:01 *UDP
-  *          *          netbios > 045:14:27 Listen
-  *          *          APPCove > 008:41:18 Listen
-  *          *          APPCove > 000:00:50 *UDP
-  *          *          https    008:14:55 Listen

More...
F3=Exit  F5=Refresh  F9=Command line  F11=Display byte counts  F12=Cancel
F20=Work with IPv6 connections  F22=Display entire field  F24=More keys
    
```

Press Page Down for more.

```

Type options, press Enter.
3=Enable debug 4=End 5=Display details 6=Disable debug
8=Display jobs

  Remote      Remote      Local
Opt Address    Port        Port        Idle Time  State
-  *          *          ldap       008:14:48 Listen
-  *          *          500        030:22:09 *UDP
-  *          *          1352       007:12:45 Listen
-  *          *          500        045:13:03 *UDP
-  10.2.3.23  1146       telnet     000:04:25 Established
-  10.2.3.23  1147       1025      001:40:20 Established
-  10.2.3.33  1116       telnet     000:04:04 Established
-  10.2.3.33  1117       1025      001:21:42 Established
-  10.2.3.77  1124       telnet     000:02:30 Established
-  10.2.3.77  1125       1025      001:23:23 Established
-  10.2.3.131 1447       telnet     000:00:01 Established
-  10.2.3.131 1448       1025      000:25:45 Established
    
```

Press F11 to show Byte count.

```

System: ALR400
Type options, press Enter.
3=Enable debug 4=End 5=Display details 6=Disable debug
8=Display jobs

  Remote      Remote      Local      User      Bytes Out  Bytes In
Opt Address    Port        Port        User      Bytes Out  Bytes In
-  *          *          ldap       QNOTES    0           0
-  *          *          500        QTCP      1776        1312
-  *          *          1352       QNOTES    0           0
-  *          *          500        QTCP      0           0
-  10.2.3.23  1146       telnet     QTCP      153419      18092
-  10.2.3.23  1147       1025      ALDBDAVE  222         348
-  10.2.3.33  1116       telnet     QTCP      197403      48560
-  10.2.3.33  1117       1025      ALDBDAVE  222         348
-  10.2.3.77  1124       telnet     QTCP      253842      37146
-  10.2.3.77  1125       1025      ALDBDAVE  222         348
-  10.2.3.131 1447       telnet     QTCP      830730      469630
-  10.2.3.131 1448       1025      ALDBDAVE  222         348

More...
    
```

## Network Printer Set-Up

This example establishes OutQueue NAHP2P for laser printer at IP address 204.216.192.154 that will use message queue NAHP2Q.

### Create a Message Queue

At the command line type: **CRTMSGQ** – Press **F4**

Name = **NAPH2Q** (Printer Queue Name)

Library = **QUSRSYS**

Text = **Unit 3 SANDIS Printer** (Description)

Press **Enter** or Click **OK**

Look for Msg at bottom to confirm

### Create an Output Queue

At the command line type: **CRTOUTQ** – Press **F4**

Output Queue = **NAHP2P** (Printer Name)

Library = **QUSRSYS**

Remote System = **\*INTNETADR** – Press **F10** (Click Advance)

Remote Printer Queue = **'RAW'**

Click on down arrow to **Page Down**

Writers to Auto Start = **1**

Queue ..... = **NAHP2Q**

Library = **QUSRSYS**

Connection = **IP**

Destination = **\*OTHER**

Press **Enter** twice to continue

Manufacturer Type and Model = **\*WSCST** – Press **Enter**

Workstation customizing object = **HP4\_198** for Portrait or **HP4\_198L** for Landscape

Library = **QGPL**

Internet Address = **204.216.192.154** (TCP/IP address) or **Host Table Name**

**Page Down**

Text Description = **Unit 3 SANDIS Printer**

Press **Enter**

Look for Msg to confirm

### Assigning Users (Must have \*SECADM Authority)

At the command line type: **WRKUSRPRF SDNA\*** - Press **Enter**

Highlight all the **users** for that unit

Click **Change**

Press **F10** (Additional Parameters)

**Page Down** until you see the **MSGQ** and **Output Queue**

MSGQ = **NAHP2Q**

Output Queue = **NAHP2P**

Library = **QUSRSYS**

<http://www-01.ibm.com/support/docview.wss?uid=nas1bed5e38e3fdd7d07862565c2007d0ef0>

## Instructions for Modifying a Workstation Customizing Object (WSCST)

### Technote

Several documents have been created on specific modifications to workstation customizing objects (or WSCSTs) for use with Host Print Transform (HPT). This document was created to provide standard instructions for:

- o Deciding which MFRTYPMDL setting to use as a base,
- o Retrieving the source for the system-supplied workstation customizing object,
- o Modifying the workstation customizing object source,
- o Creating the modified workstation customizing object, and
- o Using the modified workstation customizing object with a \*LCL or \*RMT device description, a \*LAN device description, a Remote Output Queue (RMTOUTQ), a Personal Communications 5250 (PC5250) printer session, or a third-party printer emulation package.

The section on using the modified workstation customizing object consists of links to other documents (for example, one document is for using the modified workstation customizing object with a \*LCL or \*RMT device description, and another document is for using the modified workstation customizing object with a \*LAN device description, and so on.

**Note:** A single modified workstation customizing (or \*WSCST) object can be used with any number of \*LCL or \*RMT device descriptions, Remote Output Queues (RMTOUTQs), Personal Communications 5250 (PC5250) printer sessions, or third-party printer emulation sessions. However, if any changes are made to the WSCST source code and the \*WSCST object is recreated, then each time that modified \*WSCST object must be ended and restarted for the change to take effect for that writer.

**Caution:** These instructions are provided as is. Any assistance with editing the Workstation Customization Table must be done under a consulting agreement.

This document was last updated on 04/09/2009.

### Deciding Which MFRTYPMDL Setting to Use as a Base

First, you decide which Manufacturer type and model (MFRTYPMDL) setting to use as a base for the modified workstation customizing object (WSCST). If you are already using Host Print Transform (HPT) to print to this printer, then display the printer device description using the Display Device Description (**DSPDEV**) command or display the Remote Output Queue using the Work with OUTQ Description (**WWOUTQ**) command and look at the value for the Manufacturer type and model (MFRTYPMDL) parameter.

If you do not know which WSCST to retrieve, type the **RTVWSCST** command, and press the **F4** key to prompt the command. Type **\*TRANSFORM** for the device type, and press the **Enter** key, then press the **F4** key to prompt on the manufacturer type and model. You will see a long list of all supported workstation customization tables. Compare this to the user's guide for your printer to decide which table is the best choice for your printer. When in doubt, configure your printer to use Host Print Transform before modifying a WSCST to verify that it works correctly. Once you have decided which manufacturer type and model works for your printer, proceed to the next step.

The examples to follow are using a manufacturer type and model value of **\*HP4** (which is used for HP LaserJet 4 and compatible printers) and a source member value of **HP4**.

### Retrieving the Workstation Customizing Object (WSCST) Source

You are ready to retrieve the source for the system-supplied workstation customizing object. It is recommended that you retrieve the source into a QTXSRC file that is in a library in your System Library List. This makes it easier to configure the device description because you can specify the library name of the WSCST to **\*LIBL**. The best choice is probably the library QGPL because it is typically in the System Library List and generally already has a QTXSRC file.

The Retrieve WSCST source (**RTVWSCST**) command for an HP LaserJet 4 printer looks similar to the following:

```
RTVWSCST DEVTYPE(*TRANSFORM) MFRTYPMDL(*HP4) SRCMBR(HP4) SRCFILE(QGPL/QTXSRC) TEXT('Modified WSCST for HP LaserJet 4')
```

If needed, press the **F4** key to prompt the command. Press the **Enter** key to run the command.

### Making Additional Changes to a Modified Workstation Customizing Object (WSCST) Source

If you have already made some modifications to a WSCST source member, you will want to edit the source member again without source for the system-supplied workstation customizing object over again. If you have already made changes to a WSCST source then use the **RTVWSCST** command a second time, you will overwrite the changes that you previously had made to that WSCST source.

If you have created a modified WSCST object, but cannot find the WSCST source code used to create that WSCST object, refer to Rochester Support Center knowledgebase document:

15433348, **Finding the Source Code for a Modified Workstation Customizing Object (WSCST):** 

### Modifying the Workstation Customizing Object (WSCST) Source

Use PDM or SEU to edit the source file member. To do this, type **one** of the following commands:

- o **WRKMBRPDM FILE(QGPL/QTXTSRC) MBR(\*ALL) MBRTYPE(\*ALL)**
- o **STRSEU SRCFILE(QGPL/QTXTSRC) SRCMBR(\*SELECT)**

If needed, press the **F4** key to prompt the command. Press the **Enter** key to run the command. Select Option **2** (Edit) next to the source file member, and press the **Enter** key to edit the source file member.

**Suggestion:** To help remember which MFRTYPMDL setting was retrieved to create the WSCST source member, add a comment a source member that shows details on the Retrieve WSCST source (**RTVWSCST**) command that was used. For example:

```
Columns . . . : 1 71          Edit
QGPL/QTXTSRC
SEU==>
FMT **  ...+... 1 ...+... 2 ...+... 3 ...+... 4 ...+... 5 ...+... 6 ...+... 7
***** Beginning of data
*****
0000.01 :WSCST DEVCLASS=TRANSFORM.

0000.02      /*****/
0000.03      /* RTVWSCST DEVTYPE(*TRANSFORM) MFRTYPMDL(*HP4) SRCMBR(HP4) */
0000.04      /*          SRCFILE(QGPL/QTXTSRC) */
0000.05      /*          TEXT('Modified WSCST for HP LaserJet 4') */
0000.06      /*          */
0000.07      /* Modified WSCST object based on *HP4 that .... */
0000.08      /*****/
0000.09
0000.10      :TRNSFRMTBL.
0000.11      :PRTDTASTRM
0000.12      DATASTREAM=HPPCL5.
0000.13      :NOPRTBDR
0000.14      OPTION=TOP
0000.15      ORIENT=PORTRAIT
0000.16      DATA = 240.

F3=Exit   F4=Prompt   F5=Refresh   F9=Retrieve   F10=Cursor   F11=Toggle
F16=Repeat find   F17=Repeat change   F24=More keys
```

### Creating the Modified Workstation Customizing Object (WSCST)

After the WSCST source member has been edited and saved, you are ready to create a new Workstation Customization Table (WSCST). Create WSCST (**CRTWSCST**) command looks similar to the following:

**CRTWSCST WSCST(QGPL/HP4) SRCMBR(\*WSCST) TEXT(\*SRCMBRTXT) SRCFILE(QGPL/QTXTSRC) AUT(\*LIBCRTAUT) REPLACE(\*YES)**

If needed, press the **F4** key to prompt the command. Press the **Enter** key to run the command.

### Using the Modified Workstation Customizing Object (WSCST)

After the WSCST object has been created, it must be specified in the configuration on the IBM Power Systems so the writer knows with the modified WSCST object, rather than using one of the system-supplied WSCST objects. How this is specified depends on how the printer is configured on the Power Systems.

For \*LCL, \*RMT, and \*LAN printer device descriptions, the modified WSCST object can be specified in the printer device description by ending the writer and varying off the printer device description. Then use the Change Device Desc (Printer) (**CHGDEVPRT**) command to set the Workstation customizing object (WSCST) parameter to the name of the modified WSCST object. Then the printer device description is varied back on and the printer writer started again.

For Remote Output Queues, the modified WSCST object can be specified in the output queue description by ending the writer and using the Change Output Queue (**CHGOUTQ**) command to set the Workstation customizing object (WSCST) parameter to the name of the modified WSCST object. Then the remote writer can be started again.

For \*VRT device descriptions, it depends on printer emulation software or hardware being used. Some third party printer emulation software requires you to manually change the WSCST parameter in the printer device description, just like for a \*LCL, \*RMT, or \*LAN printer device description. However, other printer emulation software, including PC5250, require that any modified Workstation Customizing Object be specified in the printer session profile; the change will be automatically reflected in the \*VRT printer device description the next time the printer session connects to the Power Systems. If the WSCST is manually changed in the printer device description, as in the case of a \*LCL printer session, then it will get set back to \*NONE when the printer session connects to the Power Systems.

For specific instructions on using Host Print Transform (HPT) with your device descriptions and/or Remote Output Queues, refer to the following documents:

- 7532429, **Using Host Print Transform (HPT) with an \*LAN Device Description:** 
- 11401901, **Using Host Print Transform (HPT) with a Remote Output Queue (RMTOUTQ):** 
- 11402020, **Using Host Print Transform (HPT) with an \*LCL or \*RMT Device Description:** 
- 23354524, **Using Host Print Transform (HPT) with a PC5250 Printer Session at V5R1M0 and Above:** 
- 13235847, **Using Host Print Transform (HPT) with a Third-Party Emulation Package:** 

### ▼ For More Information For More Information

Sources for additional information on workstation customizing objects include the following:  
o IBM Redbooks publication **IBM AS/400 Printing IV** (GG24-4389) has a section going into detail for customizing a WSCST object. This document is available on the Internet using the following Web site:

Redbooks publication **IBM AS/400 Printing IV** abstract: [http://publib-boulder.ibm.com/Redbooks.nsf/9445fa5b416f6e32852569ae006bb65f/5ad1f339df9fa03a8525659d002a567b?O](http://publib.boulder.ibm.com/Redbooks.nsf/9445fa5b416f6e32852569ae006bb65f/5ad1f339df9fa03a8525659d002a567b?O)

Redbooks publication **IBM AS/400 Printing IV** (GG24-4389-00): <http://www.redbooks.ibm.com/pubs/pdfs/redbooks/ibmas400/v5r1/ic2924/books/c4157134.pdf>  
o The **Printer Device Programming** publication documents the parameters in the printer device description for host print transform printers only have the MFGTYPMDL parameter. This document is available on the Internet using the following Web sites:

**AS/400e Printer Device Programming Version 4**, SC41-5713-03:  
<http://publib.boulder.ibm.com/pubs/pdfs/as400/V4R4PDF/QB3AUJ03.PDF>

**IBM eServer iSeries Printer Device Programming Version 5**, SC41-5713-04:  
<http://publib.boulder.ibm.com/pubs/html/as400/v5r1/ic2924/books/c4157134.pdf>

o The **Workstation Customization Programming** publication has detailed documentation of the tags within the WSCST object. This document is available on the Internet using the following Web site:

**AS/400e series Workstation Customization Programming Version 4**, SC41-5605:  
<http://publib.boulder.ibm.com/pubs/pdfs/as400/V4R3PDF/QB3AQ600.PDF>

## System i Support

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# Hardcoding Page Orientation using a Modified WSCST Object

## Technote

**Note:** This document was previously entitled "Hardcoding Print Orientation".

This document provides instructions for forcing spooled files to print with a particular paper orientation (such as portrait or landscape) when printing through Host Print Transform (HPT). This is done by retrieving and modifying a Workstation Customization Table (WSCST) and changing the values in the Paper Orientation (PRTORIENT) tags.

This document was last updated on 08/18/2010.

**Caution:** These instructions are provided **as is**. Any assistance with editing the Workstation Customization Table must be done through a consulting agreement.

## Basic Steps for Creating and Using a Workstation Customization Object

The following are the basic steps for creating and using a Workstation Customization Object (WSCST). Regardless of the particular issues you are attempting to resolve, these steps must always be taken. This information is intended to provide a 'quick start' to creating a WSCST object for users who have at least some familiarity with creating them and with configuring printers.

**Note:** Additional, in-depth details for creating a WSCST object can be found in the following document:

8692422, [Instructions for Modifying a Workstation Customization Object \(WSCST\)](#): 

The following are the basic 'quick start' steps.

**Step 1:** Retrieve the WSCST source code. Type the following command on the operating system command line:

**Important Note:** Use the Manufacturer type and model (MFRTYPMDL) that is appropriate for your printer. Also, the Source member (in the following example, **HP4**) is a name that is appropriate to your customizing object. This is what you will be calling your workstation customizing object in Step 3.

```
RTVWSCST DEVTYPE(*TRANSFORM) MFRTYPMDL(*HP4)
SRCMBR(HP4) SRCFILE(QGPL/QXTSRC)
```

Press the Enter key.

**Step 2:** Edit the source code by using PDM or SEU:

o To use PDM, on the operating system command line type the following:

```
WRKMBRPDM FILE(QGPL/QXTSRC) MBR(HP4)
```

Press the Enter key. Select Option 2 to edit.

- o To use SEU, on the operating system command line type the following:

**STRSEU SRCFILE(QGPL/QTXTSRC) SRCMBR(HP4)**

Press the Enter key.

Make any changes necessary changes to the WSCST object source. Refer to the following section **Changing the Paper Orientation (PRTORIENT) Tags in the WSCST Source Code** to make your changes, then save and exit. Continue with Step 3.

**Step 3:** Create the WSCST object using the **CRTWSCST** command. On the operating system command line, type the following:

**Important Note:** Match the SRCMBR name from Step 1 to the WSCST object name that is created in this step.

**CRTWSCST WSCST(QGPL/HP4) SRCFILE(QGPL/QTXTSRC)**

Press the Enter key.

**Step 4:** Add the WSCST to the printer configuration by using the Change Device Print command (**CHGDEVPRT**), the Change Output Queue command (**CHGOUTQ**), or by changing the PC5250 printer emulation session configuration.

- o To add the WSCST to a device description, on the operating system command line type the following:

**CHGDEVPRT DEVD(device\_name) TRANSFORM(\*YES)  
MFRTYPMDL(\*WSCST) WSCST(QGPL/HP4)**

Press the Enter key.

- o To add the WSCST to a remote output queue description, on the operating system command line type the following:

**CHGOUTQ OUTQ(queue\_name) TRANSFORM(\*YES)  
MFRTYPMDL(\*WSCST) WSCST(HP4)**

Press the Enter key.

- o To add the WSCST to a PC5250 printer emulation session, do the following:

a In the PC5250 printer session, click on **Communication > Configure**

.

b Click on the Setup button.

c In the Configure PC5250 Printer Emulation window, select the box next to **Transform Print Data to ASCII on the iSeries** and select the Printer Model value of \*WSCST.

d In the same window, specify the name of the WSCST in the Customizing Object parameter and the library where it is found in the Library parameter (for example, Customizing Object HP4 and Library QGPL).

e Click OK three times.

f Click **File > Save** to save the configuration.

**Note:** If any changes are made to the WSCST object source code after the CRTWSCST command has been issued, it is necessary to issue the CRTWSCST command again. The printer writer must be ended and restarted for the changes to take effect.

## Changing the Paper Orientation (PRTORIENT) Tags in the WSCST Source Code

If orientation is causing a problem, modify the **:PRTORIENT** tags. Do not change the 'ORIENT = ' values, because the writer needs these to send the 'DATA = ' value. For instance, if printing landscape and portrait is required, find the 'ORIENT = LANDSCAPE' and change the data value to the same as in the 'ORIENT = PORTRAIT' tag.

The default setting for the Paper Orientation (PRTORIENT) tags in the WSCST source code for \*HP4 is as follows:

```
:PRTORIENT
  ORIENT=PORTRAIT
  DATA = '1B266C304F'X.
:PRTORIENT
  ORIENT=LANDSCAPE
  DATA = '1B266C334F'X.
:PRTORIENT
  ORIENT=RTT180
  DATA = '1B266C324F'X.
:PRTORIENT
  ORIENT=RTT270
  DATA = '1B266C314F'X.
```

There is a **:PRTORIENT** tag for each of the four orientations: PORTRAIT (0 degrees), LANDSCAPE (90 degrees), RTT180 (180 degrees or upside-down portrait), and RTT270 (270 degrees or landscape right). If you need to change one of them, read the printer documentation for correct control string or just copy the DATA value from one of the other tags. Change only the DATA value.

## Examples of Changing the Paper Orientation (PRTORIENT) Tags

To print everything in portrait, set the DATA portion to '1B266C304F'X for all four orientations. For example:

```
:PRTORIENT
  ORIENT=PORTRAIT
  DATA = '1B266C304F'X.
:PRTORIENT
  ORIENT=LANDSCAPE
  DATA = '1B266C304F'X.
:PRTORIENT
  ORIENT=RTT180
  DATA = '1B266C304F'X.
:PRTORIENT
  ORIENT=RTT270
  DATA = '1B266C304F'X.
```

To print landscape with the opposite orientation, for instance if using pre-punched paper and the holes are on the wrong side, swap the DATA portions for the LANDSCAPE and RTT270 orientations. For example:

```
:PRTORIENT
  ORIENT=PORTRAIT
  DATA = '1B266C304F'X.
:PRTORIENT
  ORIENT=LANDSCAPE
```

```
DATA = '1B266C314F'X.  
:PRTORIENT  
ORIENT=RTT180  
DATA = '1B266C324F'X.  
:PRTORIENT  
ORIENT=RTT270  
DATA = '1B266C334F'X.
```

To create the WSCST object and implement it, perform Steps 3 and 4 (above).

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# For MIS Use Only –

## ODBC Database Connection - Naming Conventions

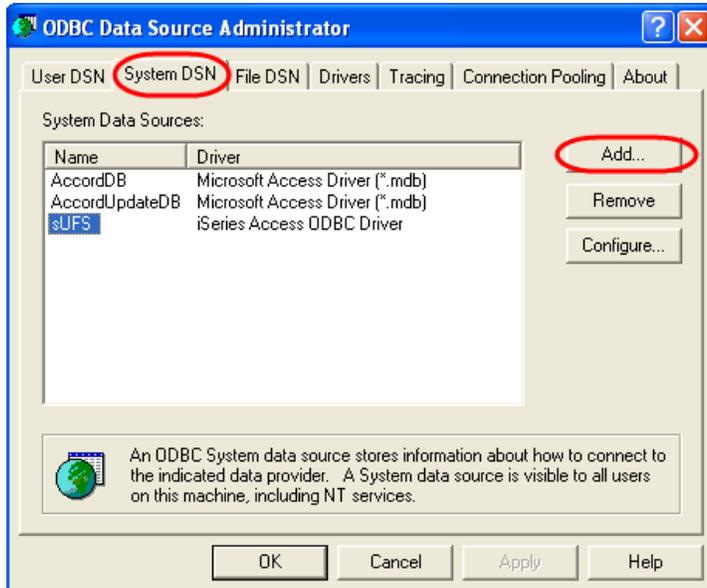
Use the following ODBC naming convention with databases on the i5.

sUFS	RCDTAHQ
sSANDIS	SAND400
sSIR	SIRSDTA
sNedaSoft	NEDASOFT
sNGS	ALTANGS

### Creating an ODBC connection to the AS400 for Microsoft Access

#### Windows XP:

1. Start – Control Panel – Administrative Tools – Data Sources (ODBC)  
Alternate path:  
Start menu – All Programs - IBM iSeries Access for Windows - ODBC Administration
2. Select the **System DSN** Tab
3. Click **ADD**

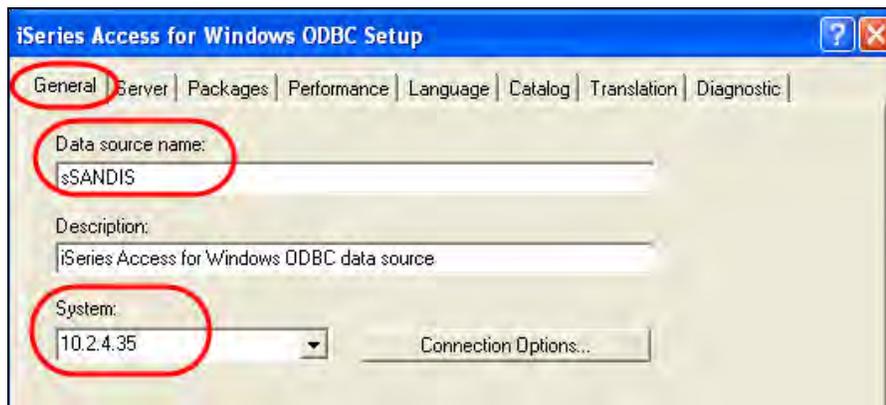


4. Select **Client Access ODBC Driver (32-bit)**

5. Click **Finish**



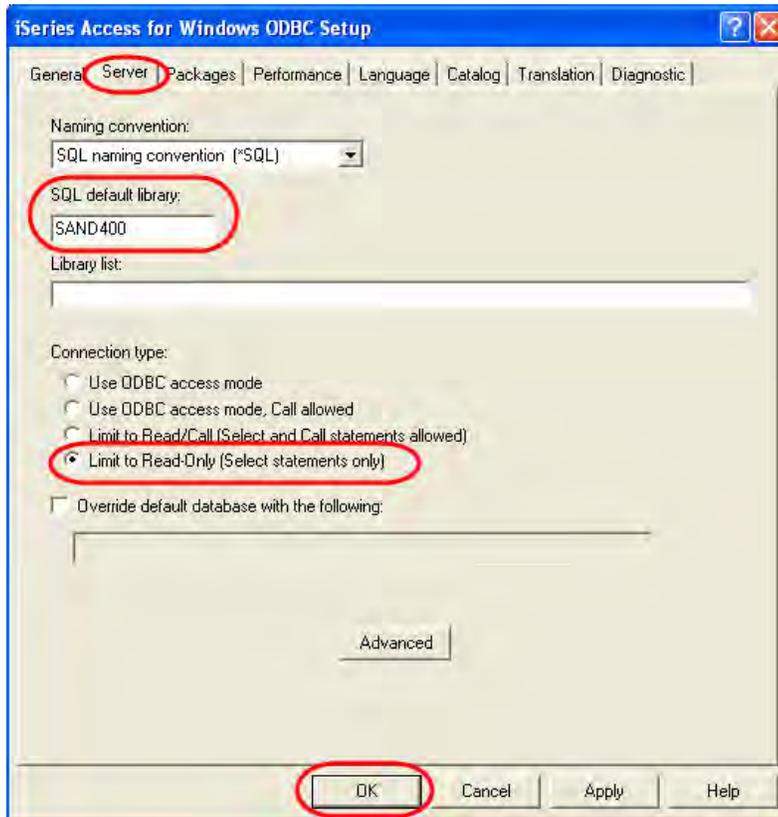
6. On the **General** Tab, enter whatever you want for the **Data source name** and leave the **System** configured for **10.2.4.35**. You can also use 10.2.4.36 or ALR400.



7. Click the **Server** tab
8. In the **SQL default library**: enter the library that contains the tables you want to access
9. (If you want multiple libraries, repeat the ODBC process and save each with a different name)

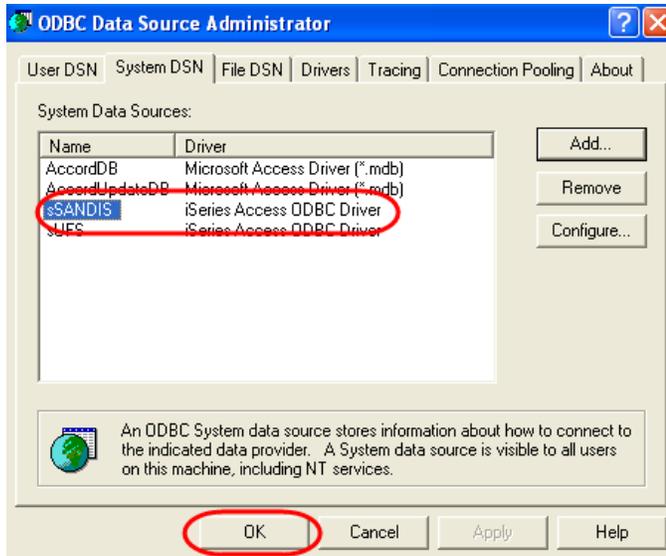
**IMPORTANT: MAKE THE CONNECTION READ ONLY:**

10. On the Other tab, click the **Read-Only (Select statements only)** radio button
11. Click **OK**

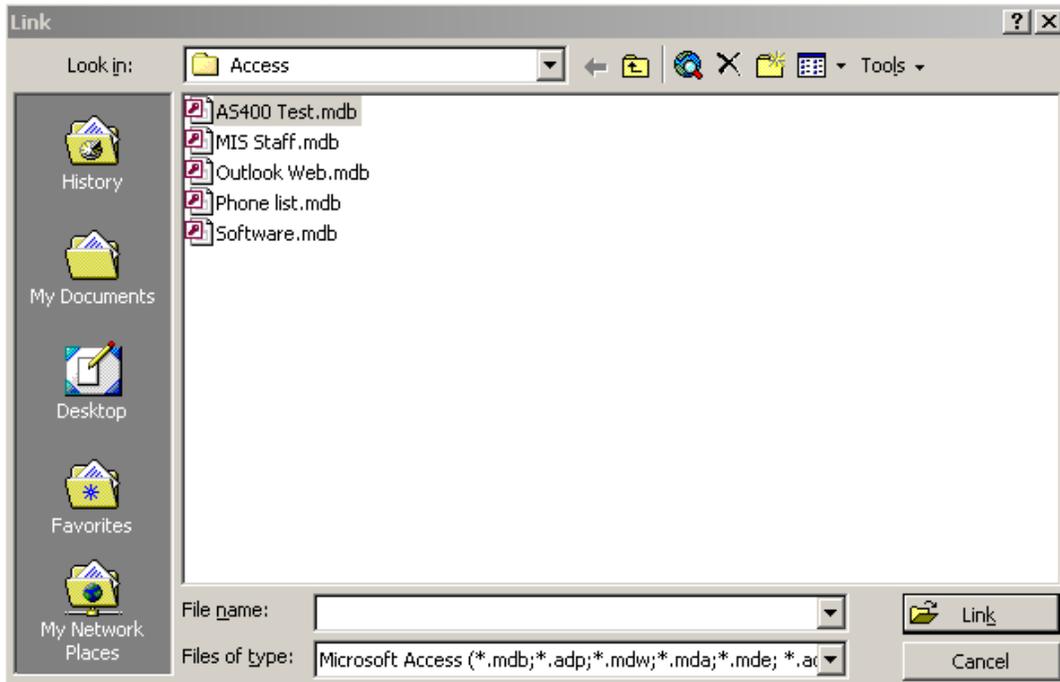


The ODBC connection has been created

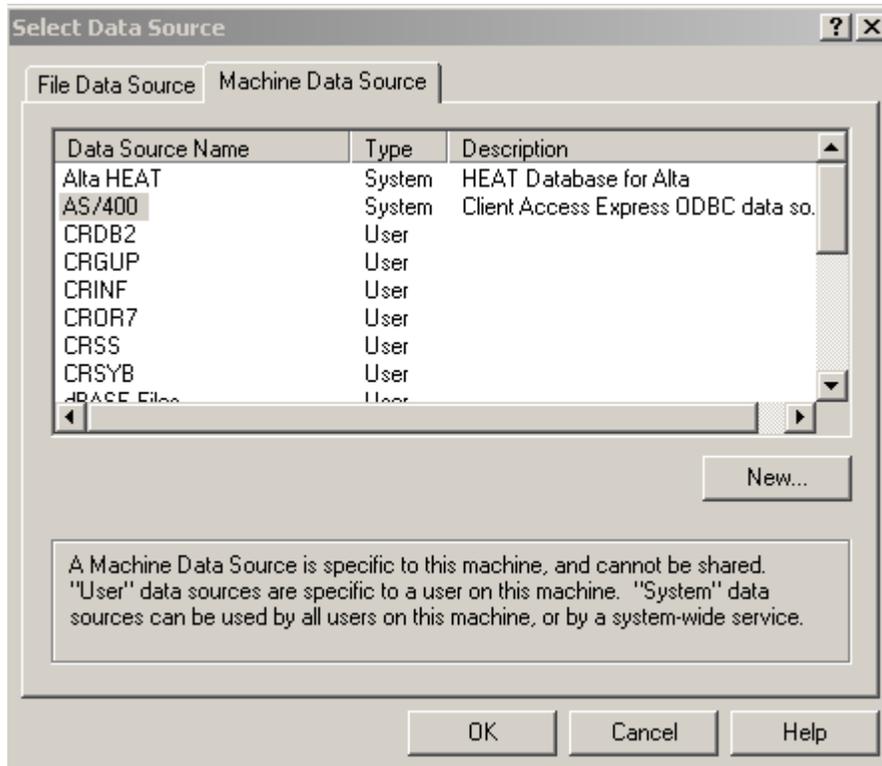
12. Click OK



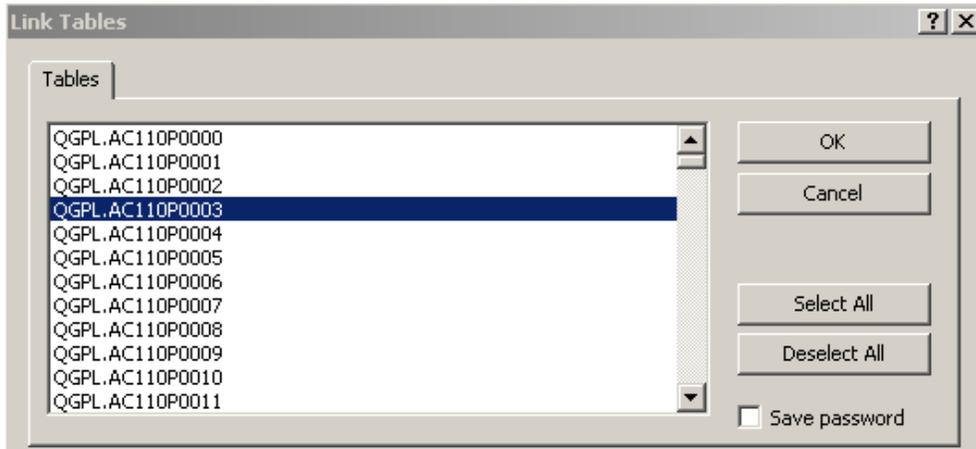
13. Open or create a new Access database
14. On the File menu select **Get External Data...** then **Link Table...**
15. Under **Files of type**: at the bottom of the window, select **ODBC Databases ( )**



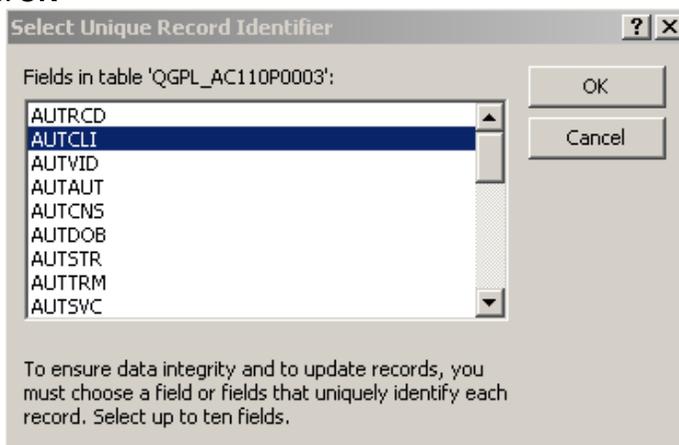
16. Click the **Machine Data Source** tab
17. Select whatever you called the ODBC data source (AS/400 in this example)
18. Click **OK**



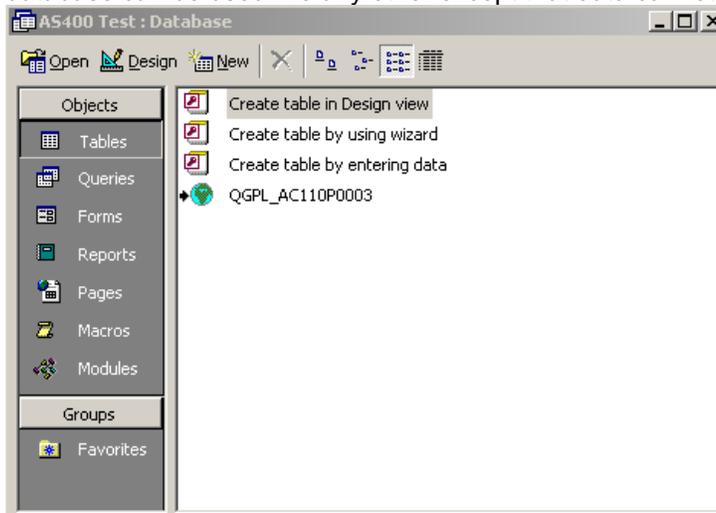
19. After a few seconds you will get a window that shows all the tables in the AS/400 database
20. Select the table or tables you want to import and click **OK**



21. Select the field that will be the Unique key field or leave it with no fields selected
22. Click **OK**

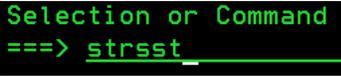


23. A read only link is created (Important: when creating the ODBC data source be sure to make it read only!)
24. The database can be used like any other except that data cannot be changed, deleted or added.



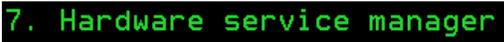
## Print I5 Hardware Configuration

Log onto the I5.

On a command prompt enter **STRSST** 

Log into SST with QSECOFR user ID. Note – the password will probably NOT be the same as the normal QSECOFR logon password, and if you don't remember what it is, it may need to be reset. If you reset to \*DEFAULT, it will be QSECOFR (case sensitive), and upon logging in, you will have to create a new password.

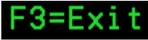
Take option 1 **Start a service tool** 

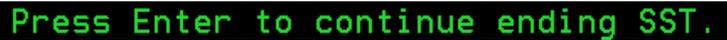
Take Option 7 Hardware service manager 

Press **F6** for **Print configuration** 

The configuration should print on your default I5 printer.

Press F12 Cancel three times 

Press F3 to Exit 

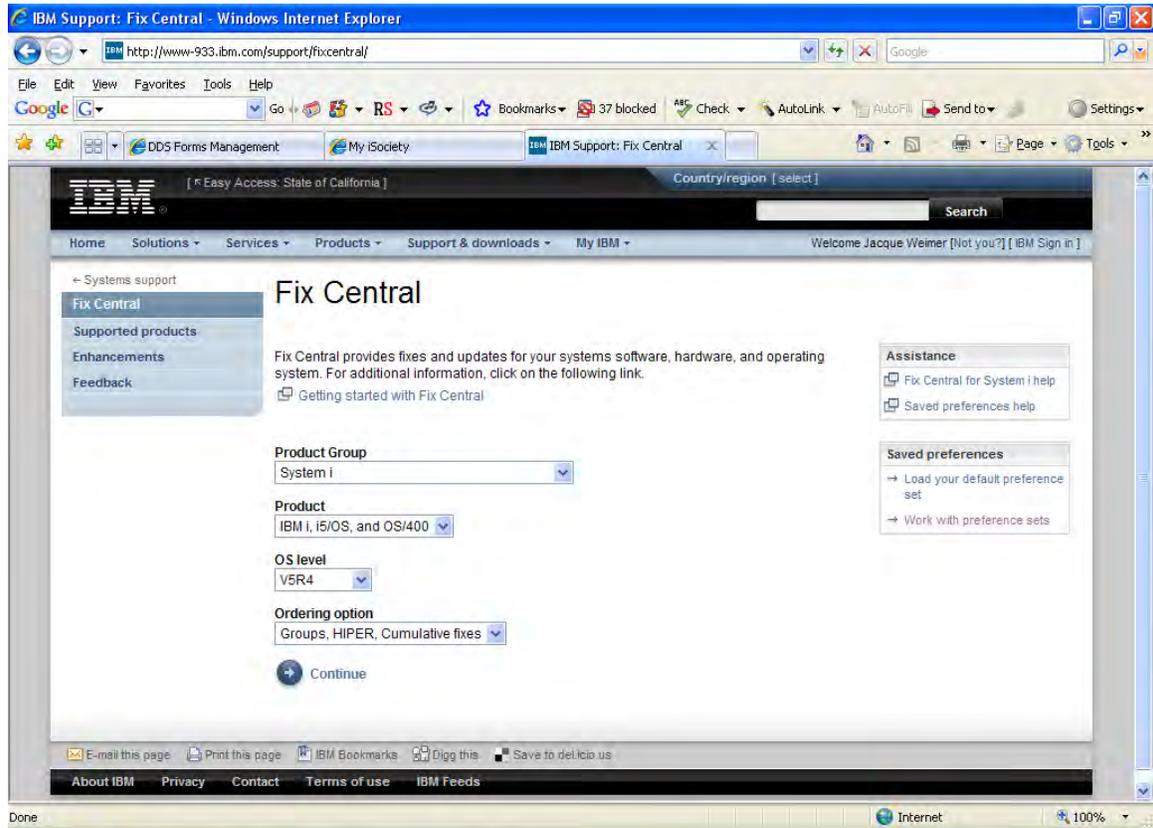
Press the Enter key to end the SST session 

You'll return to your normal I5 screen.

## Downloading and Loading PTFs from IBM's Fix Central

<http://www-933.ibm.com/support/fixcentral/>

Select from the various drop-downs, and make your way to the logon screen. Then you'll be able to select cumulatives and hipers or individual fixes, if desired. Normally, individual fixes can be ordered directly using option 6 on the PTF menu. But for these larger ones, Fix Central is a good place to start if you want them right now. If you can wait, you still have the option to order discs from IBM.



IBM Support: Fix Central - Group, HIPER, and Cumulative - Windows Internet Explorer

http://www-933.ibm.com/eserver/support/fixes/ProcessGroup?release=V5R4&addedcount=0

Country/region [select] Terms of use

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Systems support

Fix Central

Supported products

Enhancements

Help

Feedback

Related links

- Technical databases
- Information center

## Group, HIPER, and Cumulative

Individual fixes **Group, HIPER, and Cumulative** Search for fixes

Select Group, HIPER, or Cumulative fixes for OS/400 V5R4 and i5/OS V5R4.  
After selecting fixes, click **Add to my download list**.

PTF	Level	Abstract	Last updated
SF99615	1	540 DB2 Web Query for IBM i V1.1.1	3/6/2009
SF99540	8305	Current Cumulative PTF Media Documenta	11/24/2008
SF99539	96	540 Group Hiper	3/17/2009
SF99538	6	540 Group Security	3/17/2009
SF99504	19	540 DB2 for System i	2/17/2009
SF99348	10	540 IBM i integration with BladeCenter	3/12/2009
SF99347	29	540 Print Group PTF for V5R4M0	3/2/2009

[Add to my download list](#)
[View my download list](#)

[Create new download list](#)
[View fix details](#)

There are no fixes in your download list.

Click **Continue** to go to the packaging options.

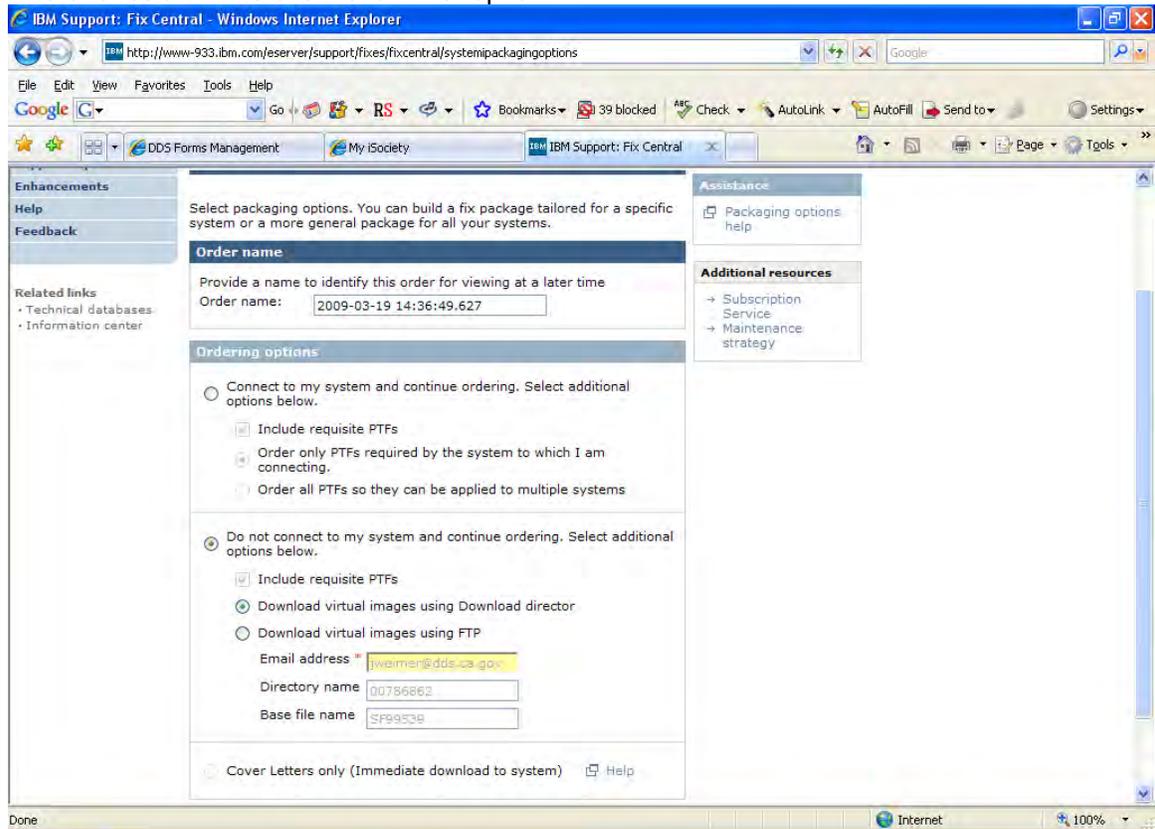
[Continue](#)

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javascript:checkFormAndAddFix(['SF99520, SF99519, SF99502, SF99345, SF99313, SF99302, SF99300, SF99294, SF99280, SF9...

Internet 100%

It's best to use Download Director rather than FTP to download the PTFs, because it'll remember where to restart in the event of an interruption.



If you've downloaded the fixes to a local or network drive, you'll need to copy or move them into the IFS directory you'll be creating in step 2. In this case, it's going to be PTFCatalogDirectory (in Root).

Note: Drag and drop may not work for the larger files. If you need to FTP them to the IFS, you'll need to change the name format used, using the "quote site namefmt 1" ftp command. The following is a script that will transfer files from the DownloadDirector folder on your C drive to the PTFCatalogDirectory in the Root of the IFS:

Start a command prompt from your PC, and change to the DownloadDirector folder

```
C: cd \DownloadDirector
```

Start an ftp to your i5 (using your internal IP address or host name). Your entries are in **blue** (and variable in **red**): (Note that you will have to enter the QSECOFR password, but it won't show on the screen)

```
C:\DownloadDirector> ftp 10.96.69.94
Connected to 10.96.69.74.
220-QTCP at HQR400.
220 Connection will close if idle more than 5 minutes.
User <10.96.69.74:<none>>: qsecofr
331 Enter password.
Password:
230 QSECOFR logged on.
ftp> bin
200 Representation type is binary IMAGE.
ftp> quote site namefmt 1
250 Now using naming format "1".
ftp> cd /PTFCatalogDirectory
250 "/PTFCatalogDirectory" is current directory.
ftp> put iptfxxx_x.bin
200 PORT subcommand request successful.
150 Sending file to /PTFCatalogDirectory/S8368V01.BIN
226 File transfer completed successfully.
ftp: 588259328 bytes sent in 60.78Seconds 9678.18Kbytes/sec.
ftp> quit
```

### Installing i5/OS fixes from an image catalog

To install your fixes from an image catalog, do the following steps:

#### **1. Create a virtual optical device**

It is possible that you used an image catalog that is associated with a virtual optical device to install PTFs before or to perform a software upgrade. If you did, you do not need to perform this step. If you do not have a virtual optical device, you must create one.

\* To create a device description, type the following on any command line:

```
CRTDEVOPT DEVD(OPTVRT01) RSRCCNAME(*VRT) ONLINE(*YES) TEXT(Virtual
Optical Device)
```

\* To determine whether a virtual optical device exists, type the following:

```
WRKDEVD DEVD(*OPT)
```

A virtual optical device is indicated by a device type of 632B.

To ensure that the device is active, press F14 (Work with configuration status). If the device is not active, type 1 to vary it on.

## 2. Create an image catalog

Create an image catalog for the set of PTFs that you want to install. The Create Image Catalog (CRTIMGCLG) command associates an image catalog with a target directory where the preloaded images are loaded.

```
CRTIMGCLG IMGCLG(ptfcatalog) DIR('/PTFCatalogDirectory') CRTDIR(*YES) TEXT(Target Directory for Image Catalog PTFs)
```

Note: A directory can be associated with only one image catalog.

## 3. Add an image catalog entry

\* Add an image catalog entry for fixes that you downloaded from Fix Central into an IFS directory (see above for instructions to get the files from the Download Director download into the IFS). You can add into the directory that is associated with the image catalog directory.

```
ADDIMGCLGE IMGCLG(ptfcatalog) FROMFILE(iptfxxx\_x.bin)  
TOFILE(iptfxxx\_x.bin)
```

Do this for each file you've downloaded.

## 4. Load the image catalog

This step associates the virtual optical device to the image catalog. Only one image catalog can be associated with a specific virtual optical device. Type the following command to load the image catalog:

```
LODIMGCLG IMGCLG(ptfcatalog) DEV(OPTVRT01) OPTION(*LOAD)
```

## 5. Verify that the images are in the correct order

```
VFYIMGCLG IMGCLG(ptfcatalog) TYPE(*PTF) SORT(*YES)
```

The system puts the images in the correct order. By default, the volume with the lowest index is *mounted*; all the other volumes are *loaded*. Use the Work with Catalog Entries (WRKIMGCLGE) command to see the order of the images.

Note: If you are attempting to load individual PTFs with the Load PTF (LODPTF) command, only the PTFs on the volume set that is mounted can be loaded.

## 6. Install PTFs from virtual optical device

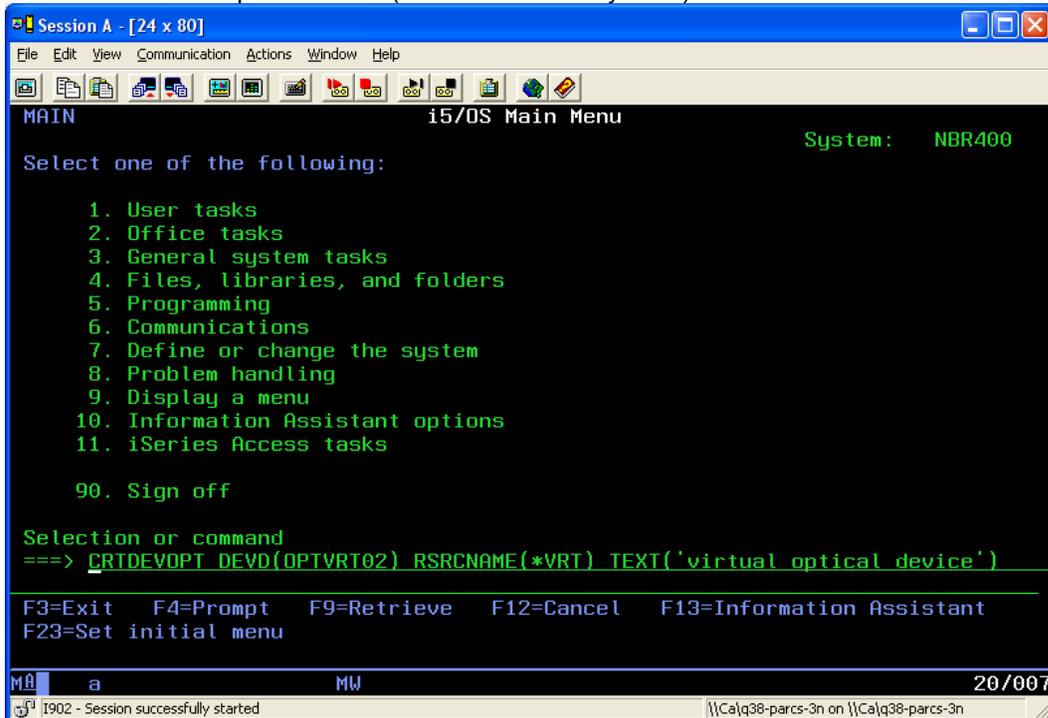
To install PTFs from an image catalog associated with a virtual optical device, see Installing fixes from media or Installing cumulative PTF packages. For the device name, enter the name of the virtual optical device that is associated with your image catalog (in this case, [OPTVRT01](#)). All the PTFs from the images that are either mounted or loaded will be installed.

## 7. Delete images from image catalog

Once you have successfully installed the fixes, you should remove the images from the catalog with the Remove Image Catalog Entries (RMVIMGCLGE) command. This is done one index number at a time. If you continue to add new images to the same image catalog without removing the old images, PTF install processing will attempt to install the fixes from all of the loaded images in the catalog.

# PTF Image Catalog Process

1. Create a virtual optical device (if it doesn't already exist)



The screenshot shows the i5/OS Main Menu. The title bar reads "Session A - [24 x 80]". The menu options are:

```
MAIN                                     System:  NBR400
                                     i5/OS Main Menu

Select one of the following:

  1. User tasks
  2. Office tasks
  3. General system tasks
  4. Files, libraries, and folders
  5. Programming
  6. Communications
  7. Define or change the system
  8. Problem handling
  9. Display a menu
 10. Information Assistant options
 11. iSeries Access tasks

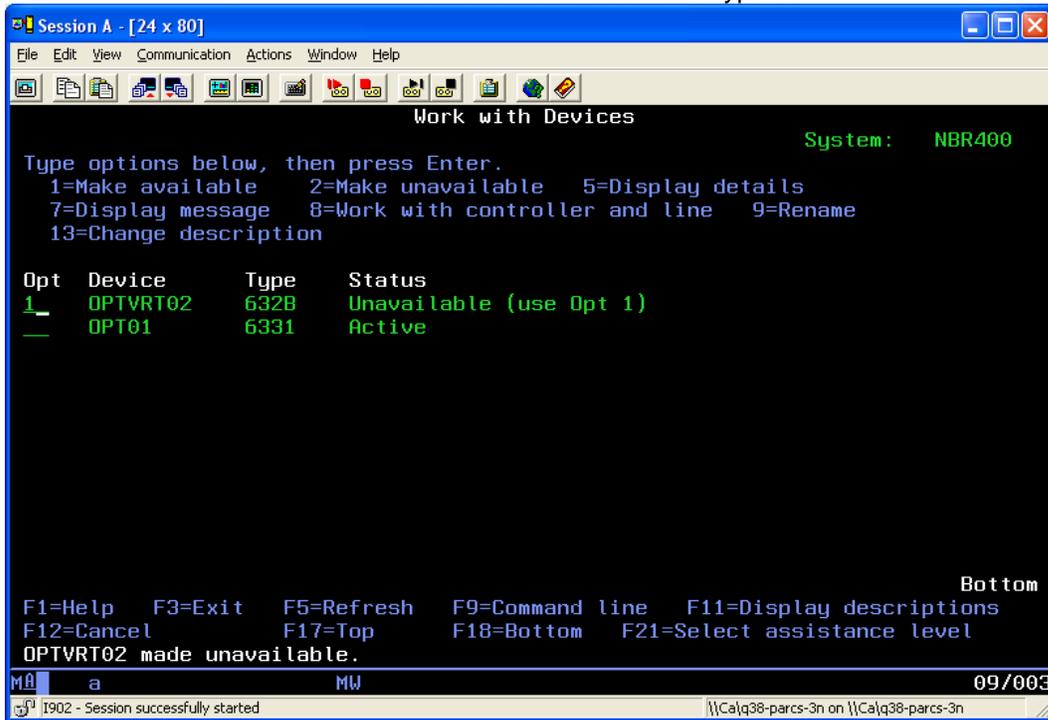
 90. Sign off

Selection or command
==> CRTDEVOPT DEVD(OPTVRT02) RSRNAME(*VRT) TEXT('virtual optical device')

F3=Exit  F4=Prompt  F9=Retrieve  F12=Cancel  F13=Information Assistant
F23=Set initial menu

M  a                                     MW                                     20/007
I902 - Session successfully started      \\Ca\q38-parcs-3n on \\Ca\q38-parcs-3n
```

Do a WRKDEVD \*OPT and F14 – to make it available. It's a type 632B



The screenshot shows the "Work with Devices" screen. The title bar reads "Session A - [24 x 80]". The menu options are:

```
Work with Devices                                     System:  NBR400

Type options below, then press Enter.
  1=Make available  2=Make unavailable  5=Display details
  7=Display message  8=Work with controller and line  9=Rename
 13=Change description

Opt  Device      Type      Status
 1_  OPTVRT02     632B     Unavailable (use Opt 1)
__  OPT01        6331     Active

Bottom
F1=Help  F3=Exit  F5=Refresh  F9=Command line  F11=Display descriptions
F12=Cancel  F17=Top  F18=Bottom  F21=Select assistance level
OPTVRT02 made unavailable.

M  a                                     MW                                     09/003
I902 - Session successfully started      \\Ca\q38-parcs-3n on \\Ca\q38-parcs-3n
```

```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
Work with Devices
System: NBR400
Type options below, then press Enter.
1=Make available 2=Make unavailable 5=Display details
7=Display message 8=Work with controller and line 9=Rename
13=Change description

Opt Device Type Status
-- OPTVRT02 632B Active
-- OPT01 6331 Active

Bottom
F1=Help F3=Exit F5=Refresh F9=Command line F11=Display descriptions
F12=Cancel F17=Top F18=Bottom F21=Select assistance level
OPTVRT02 made available.
MA a MW 09/002
I902 - Session successfully started \\Ca\q38-parcs-3n on \\Ca\q38-parcs-3n

```

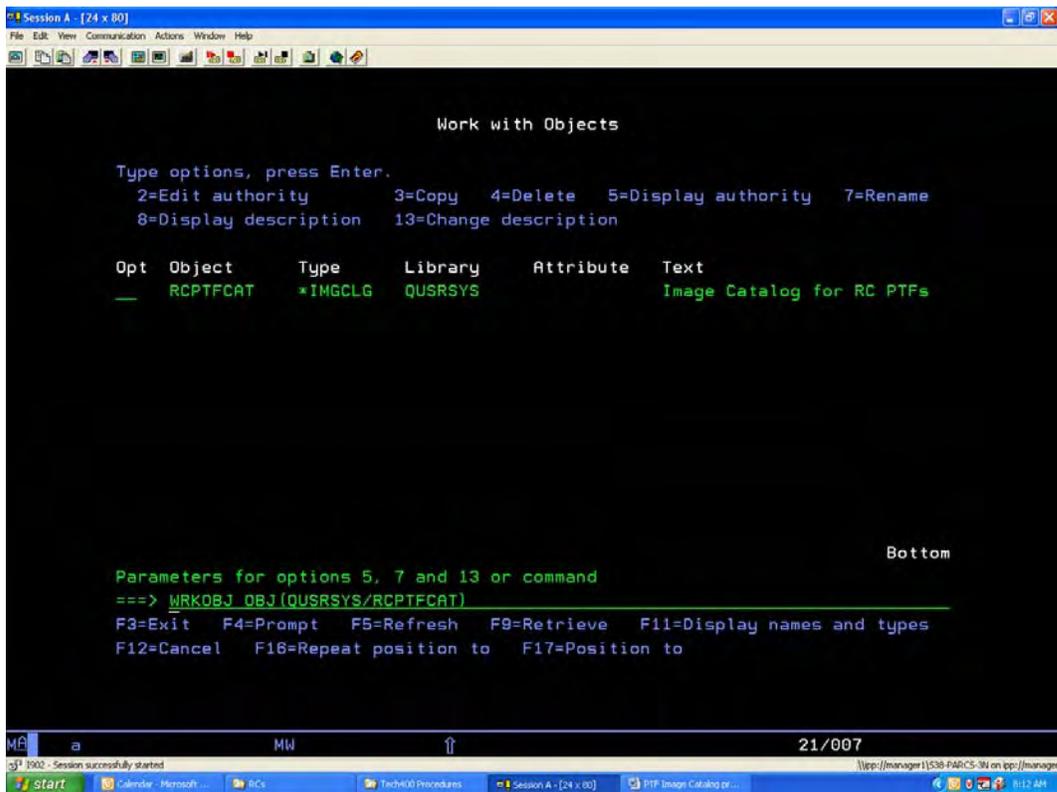
## 2. Create an image catalog

This does two things: it creates an image catalog file in QUSRSYS (`rcptfcac`), and it creates a directory that it is related to in the IFS (`RCPTFCatalogDirectory`):

```

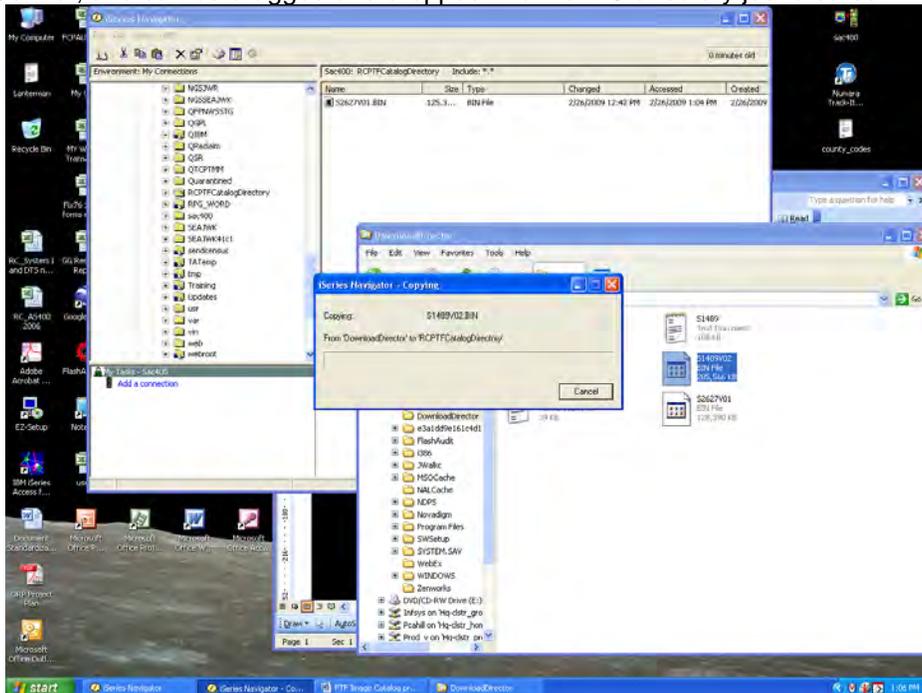
Session A - [24 x 80]
File Edit View Communication Actions Window Help
MAIN i5/OS Main Menu
System: ALR400
Select one of the following:
1. User tasks
2. Office tasks
3. General system tasks
4. Files, libraries, and folders
5. Programming
6. Communications
7. Define or change the system
8. Problem handling
9. Display a menu
10. Information Assistant options
11. iSeries Access tasks
90. Sign off
Selection or command
==> crtimqclg imgclg(rcptfcac) dir('RCPTFCatalogDirectory') crtdir(*yes) text(
'Image Catalog for RC PTFs')
F3=Exit F4=Prompt F9=Retrieve F12=Cancel F13=Information Assistant
F23=Set initial menu
Image catalog RCPTFCAT created in library QUSRSYS.
MA a MW 20/007
I902 - Session successfully started \\ppp\manager1\538-PARC5-3N on pp\manager
start Calendar - Microsoft ... RCs TechNet Procedures Session A - [24 x 80] PTF Image Catalog pr ... In-0) A9

```

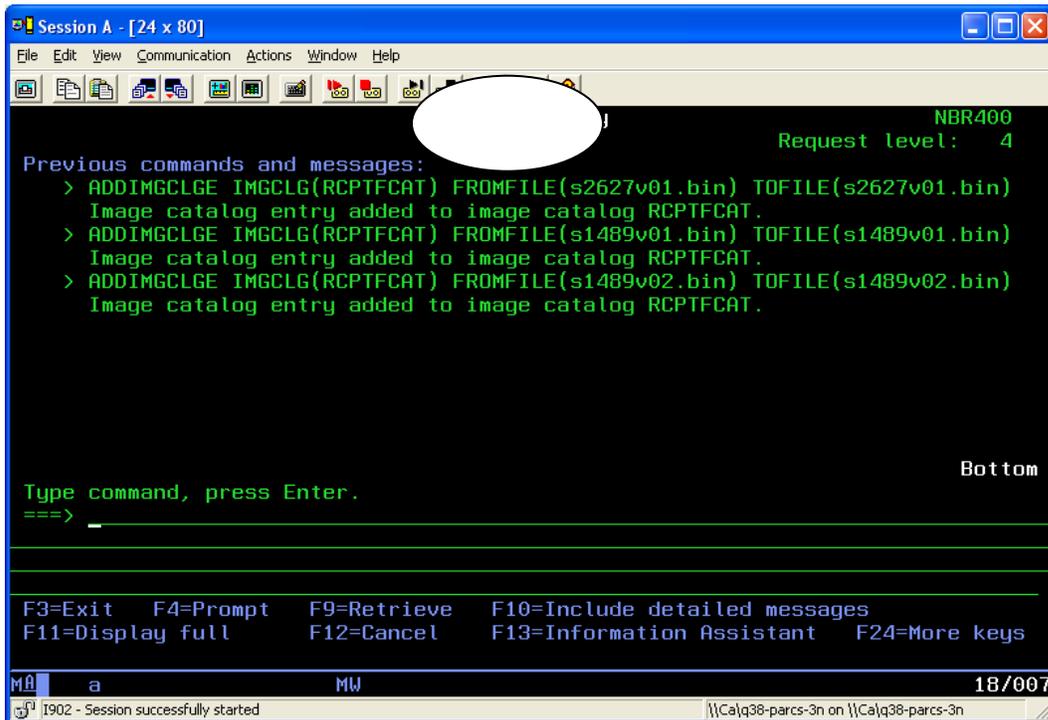


### 3. Add an image catalog entry

The image catalog entries will be the PTF files that have been downloaded from Fix Central, and can be dragged and dropped into the IFS directory just created:



Drop in the "RCPTFCatalogDirectory" under root.



```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
NBR400
Request level: 4
Previous commands and messages:
> ADDIMGCLGE IMGCLG(RCPTFCAT) FROMFILE(s2627v01.bin) TOFILE(s2627v01.bin)
Image catalog entry added to image catalog RCPTFCAT.
> ADDIMGCLGE IMGCLG(RCPTFCAT) FROMFILE(s1489v01.bin) TOFILE(s1489v01.bin)
Image catalog entry added to image catalog RCPTFCAT.
> ADDIMGCLGE IMGCLG(RCPTFCAT) FROMFILE(s1489v02.bin) TOFILE(s1489v02.bin)
Image catalog entry added to image catalog RCPTFCAT.

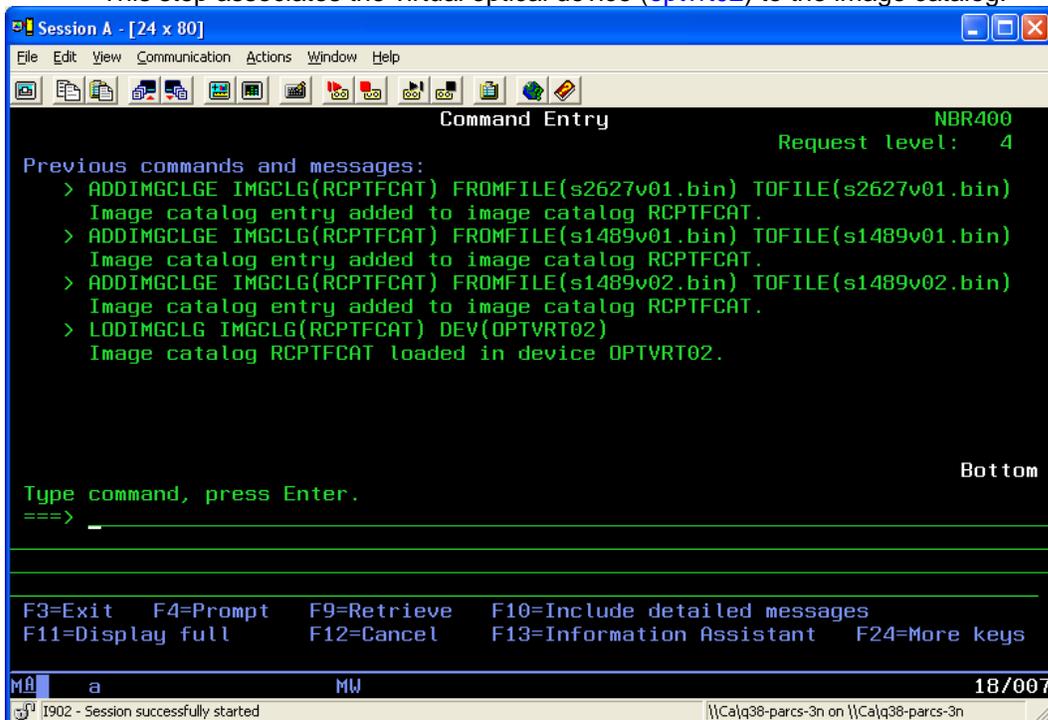
Type command, press Enter.
===> _

F3=Exit F4=Prompt F9=Retrieve F10=Include detailed messages
F11=Display full F12=Cancel F13=Information Assistant F24=More keys

MA a MW 18/007
I902 - Session successfully started \\Ca\q38-parcs-3n on \\Ca\q38-parcs-3n
```

#### 4. Load the image catalog

This step associates the virtual optical device ([optvrt02](#)) to the image catalog.



```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Command Entry
NBR400
Request level: 4
Previous commands and messages:
> ADDIMGCLGE IMGCLG(RCPTFCAT) FROMFILE(s2627v01.bin) TOFILE(s2627v01.bin)
Image catalog entry added to image catalog RCPTFCAT.
> ADDIMGCLGE IMGCLG(RCPTFCAT) FROMFILE(s1489v01.bin) TOFILE(s1489v01.bin)
Image catalog entry added to image catalog RCPTFCAT.
> ADDIMGCLGE IMGCLG(RCPTFCAT) FROMFILE(s1489v02.bin) TOFILE(s1489v02.bin)
Image catalog entry added to image catalog RCPTFCAT.
> LODIMGCLG IMGCLG(RCPTFCAT) DEV(OPTVRT02)
Image catalog RCPTFCAT loaded in device OPTVRT02.

Type command, press Enter.
===> _

F3=Exit F4=Prompt F9=Retrieve F10=Include detailed messages
F11=Display full F12=Cancel F13=Information Assistant F24=More keys

MA a MW 18/007
I902 - Session successfully started \\Ca\q38-parcs-3n on \\Ca\q38-parcs-3n
```

#### 5. Verify that the images are in the correct order

The system puts the images in the correct order. By default, the volume with the lowest index is mounted; all the other volumes are loaded. Use the Work with Catalog Entries (WRKIMGCLGE) command to see the order of the images.

```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
Command Entry
NBR400
Request level: 4

Previous commands and messages:
> ADDIMGCLGE IMGCLG(RCPTFCAT) FROMFILE(s2627v01.bin) TOFILE(s2627v01.bin)
Image catalog entry added to image catalog RCPTFCAT.
> ADDIMGCLGE IMGCLG(RCPTFCAT) FROMFILE(s1489v01.bin) TOFILE(s1489v01.bin)
Image catalog entry added to image catalog RCPTFCAT.
> ADDIMGCLGE IMGCLG(RCPTFCAT) FROMFILE(s1489v02.bin) TOFILE(s1489v02.bin)
Image catalog entry added to image catalog RCPTFCAT.
> LODIMGCLG IMGCLG(RCPTFCAT) DEV(OPTVRT02)
Image catalog RCPTFCAT loaded in device OPTVRT02.
> VFYIMGCLG IMGCLG(RCPTFCAT) TYPE(*PTF) SORT(*YES)
Image catalog RCPTFCAT, type *PTF verified.

Type command, press Enter.
===>

F3=Exit F4=Prompt F9=Retrieve F10=Include detailed messages
F11=Display full F12=Cancel F13=Information Assistant F24=More keys

MA a MW 18/007
I902 - Session successfully started \\Ca\q38-parcs-3n on \\Ca\q38-parcs-3n

```

```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
Work with Image Catalog Entries
System: NBR400

Catalog . . . : RCPTFCAT Status . . . : Ready
Type . . . . : Optical Device . . . : OPTVRT02
Directory . . : /RCPTFCatalogDirectory

Type options, press Enter.
1=Add 2=Change 4=Remove 6=Mount 8=Load 9=Unload
10=Initialize volume 12=Work with volume

Opt Index Status Image File Name
-- *AVAIL
-- 1 Mounted s1489v01.bin
-- 2 Loaded s1489v02.bin
-- 3 Loaded s2627v01.bin

F3=Exit F5=Refresh F6=Load image catalog F7=Verify image catalog
F8=Reorder by index F12=Cancel F24=More keys

MA a MW 13/004
I902 - Session successfully started \\Ca\q38-parcs-3n on \\Ca\q38-parcs-3n

```

6. Install PTFs from virtual optical device

```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
PTF Program Temporary Fix System: NBR400
Select one of the following:

1. Load a program temporary fix
2. Apply a program temporary fix
3. Copy a program temporary fix
4. Remove a program temporary fix
5. Display a program temporary fix
6. Order a program temporary fix
7. Install a program temporary fix from a list
8. Install program temporary fix package
9. Copy PTF Cover Letter
10. Display PTF Cover Letter
11. Delete a program temporary fix
12. Work with PTF groups
13. Copy PTF group

More...

Selection or command
==> 8_

F3=Exit F4=Prompt F9=Retrieve F12=Cancel F13=Information Assistant
F16=System Main menu
(C) COPYRIGHT IBM CORP. 1980, 2005.
Mâ a Mâ 20/008
I902 - Session successfully started \\Ca\q38-parcs-3n on \\Ca\q38-parcs-3n

```

```

Session A - [24 x 80]
File Edit View Communication Actions Window Help
Install Options for Program Temporary Fixes System: NBR400
Type choices, press Enter.

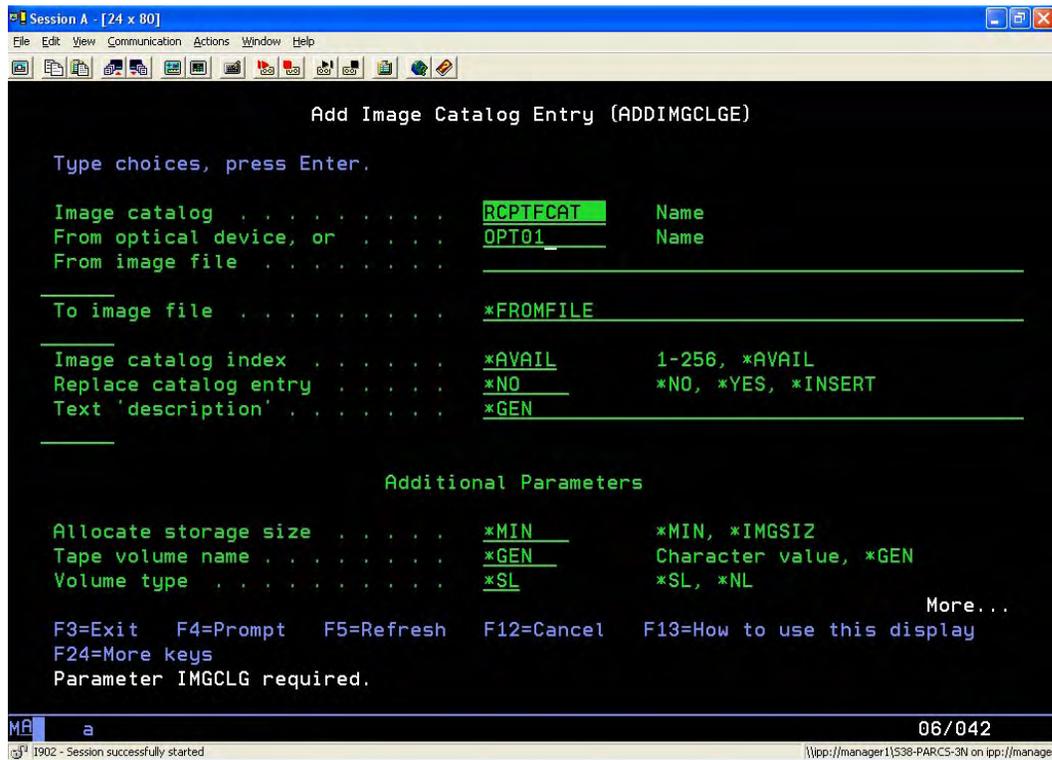
Device . . . . . OPTVRT02 Name, *SERVICE, *NONE
Automatic IPL . . . . . N Y=Yes
N=No
Prompt for media . . . . . 2 1=Single PTF volume set
2=Multiple PTF volume sets
3=Multiple volume sets and *SERVICE
Restart type . . . . . *SYS *SYS, *FULL
Other options . . . . . N Y=Yes
N=No

F3=Exit F12=Cancel
Mâ a Mâ 14/032
I902 - Session successfully started \\Ca\q38-parcs-3n on \\Ca\q38-parcs-3n

```

7. Delete the images from image catalog – cleanup.  
 RMVIMGCLGE for RCPTFCAT, each index number

# Adding PTF from a disc to the RCPTFCAT



## Put a Spool File on Save

This will keep the file in the spool after it's been printed. The file will be available for additional actions.

Locate the file you want to put on Save

Take option **2 = Change**

```
Work with Outp
Queue:  PRT03      Library:  QUSRSYS

Type options, press Enter.
 1=Send  2=Change  3=Hold  4=Delete
 8=Attributes  9=Work with printing

Opt  File      User      User Data  S
   2  CS821R01  ALDBDAVE  CS821R     H
   2  GL03701  ALDBDAVE  GL037      S
   2  GL120701  ALDBDAVE  GL1207     S
```

Press **F10** Additional Parameters

Press **Page Down**

Change **Save file** to **\*Yes**

```
Change Spooled File Attributes (CHGSPLFA)

Type choices, press Enter.

Additional Parameters

Output queue . . . . . PRT03      Name, *SAME, *DEV
Library . . . . . QUSRSYS      Name, *LIBL, *CURLIB
File separators . . . . . 0      0-9, *SAME
Page range to print:
  Starting page . . . . . 1      Number, *SAME, *ENDPAGE
  Ending page . . . . . *END      Number, *SAME, *END
File becomes available . . . . . *FILEEND  *SAME, *JOBEND, *FILEEND.
Save file . . . . . *YES      *SAME, *NO, *YES, *IMMED
Expiration date for file . . . . . *NONE      Date, *SAME, *NONE, *DAYS
Days until file expires . . . . .      1-366
Output priority . . . . . 5      1-9, *SAME, *JOB
User data . . . . . 'CS821R'  User data, *SAME
Align page . . . . . *NO      *SAME, *NO, *YES

More
```

# Restoring Files from Tape

## Restoring to the Same Library and Overwrite the Existing File:

On the command line enter **RSTOBJ** and press **F4**

- **Objects:** Enter the name of the file.
- **Saved library:** Enter the name of the library the file was originally in when the tape was made.
- **Device:** Enter the name of the tape drive – **TAP01**

```
Restore Object (RSTOBJ)

Type choices, press Enter.

Objects . . . . . > VENDD           Name, generic*, *ALL
                   + for more values
Saved library . . . . . > RCDTAHQ       Name
Device . . . . . > TAP01           Name, *SAVF, *MEDDFN
                   + for more values
Object types . . . . . *ALL         *ALL, *ALRTBL, *BNDDIR...
                   + for more values
```

Press **Enter** to restore the file to the original location.

## Restoring to a different Library:

If you want to restore the file to a different library than the one it originally came from, enter the destination library on the **Restore to library** line.

- **F10** for more options
- Page down
- Enter the name of the destination library in the **Restore to library** line.

```
Restore Object (RSTOBJ)

Type choices, press Enter.

File member:
  File . . . . . *ALL           Name, *ALL
  Member . . . . . *ALL       Name, generic*, *ALL, *NONE
                   + for more values
                   + for more values
Data base member option . . . . *MATCH   *MATCH, *ALL, *NEW, *OLD
Date when saved . . . . . _____ Date
Time when saved . . . . . _____ Time
Allow object differences . . . . *NONE     *NONE, *ALL, *FILELVL
Force object conversion:
  Convert during restore . . . . *SYSVAL   *SYSVAL, *NO, *YES
  Objects to convert . . . . . _____ *RQD, *ALL
Restore to library . . . . . ZLIB       Name, *SAVLIB
Auxiliary storage pool ID . . . . *SAVASP   1-32, *SAVASP
Output . . . . . *NONE         *NONE, *PRINT, *OUTFILE
```

# Working with Files

STRPDM = AS/400 Programming Screen  
Work with members = files

```
AS/400 Programming Development Manager (PDM)

Select one of the following:

1. Work with libraries
2. Work with objects
3. Work with members

9. Work with user-defined options
```

```
Specify Members to Work With

Type choices, press Enter.

File . . . . . PVNDOR Name, F4 for list

Library . . . . . ZLIB *LIBL, *CURLIB, name

Member:
Name . . . . . *ALL *ALL, name, *generic*
Type . . . . . *ALL *ALL, type, *generic*, *BLANK
```

```
Work with Members Using PDM ALR400

File . . . . . PVNDOR
Library . . . . . ZLIB Position to . . . . . _____

Type options, press Enter.
3=Copy 4=Delete 5=Display 7=Rename 8=Display description
9=Save 13=Change text 18=Change using DFU 25=Find string ...

Opt Member Date Text
_ PVNDOR 01/31/06 Physical file PVNDOR
```

## Getting descriptions for codes using the STABCOD file in the SAND400 Library

For all Records:

TSTAT = Status (blank = Active and "D" = Deleted)

Service Coordinator name:

TFLDK = CASM

TCODE = SC code (like T0A)

TDESC= SC name

County name:

TFLDK = CNTY

TCODE = County code

TDESC= County name

Ethnicity:

TFLDK = ETHN

TCODE = Ethnicity code

TDESC= Ethnicity

Language:

TFLDK = LANG

TCODE = language code

TDESC= Language

Legal Status:

TFLDK = LEGL

TCODE = Legal Status code

TDESC= Legal Status

Residence Type:

TFLDK = RTYPE

TCODE = Residence code

TDESC= Residence Type

Service Code:

TFLDK = SRVC

TCODE = Service Code

TDESC= Service Code

Client Status:

TFLDK = STUS

TCODE = Status code

TDESC= Client Status

SC Unit:

TFLDK = UNIT

TCODE = Unit code (First 2 characters of the SC Code like VO)

TDESC= Unit

## **ID Notes Not Showing Up – System Date Needs to be Started**

The command SYSDATE is run on the job scheduler Weekly on Tuesdays at 6:46 AM. If it doesn't run, ID notes entered will not show up on the consumers' records until the command is run.

### **Run SYSDATE Manually:**

On the command line type: **CALL SYSDAT** and press **ENTER**

### **Run SYSDATE Manually (Alternate method):**

From SANDIS:

On the command line enter: **WRKJOBSCDE**

Scroll down and click to select SYSDATE. Then click the **Submit immediately** button at the top of the screen.

Click **OK** on the next screen.

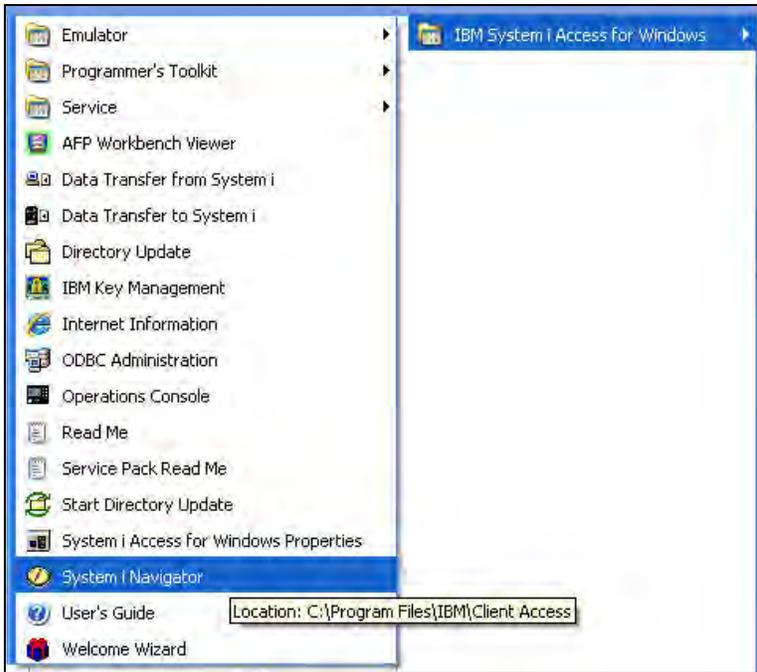
### **From Client Access:**

On the command line enter: **WRKJOBSCDE**

Scroll down to SYSDATE and take **option 10** (Submit immediately)

# System i Navigator

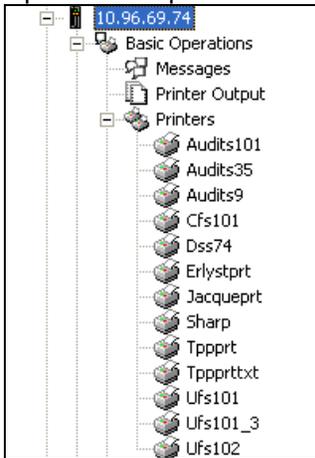
Open IBM System i Navigator



Log on using your iSeries User ID and Password.

## Printers and Print Jobs:

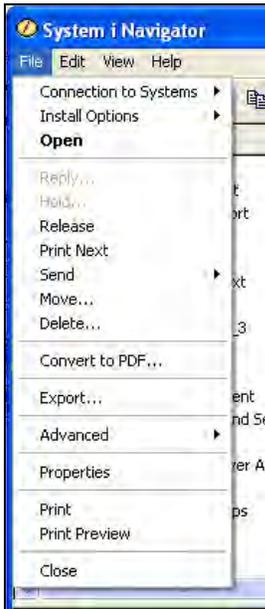
Open Basic Operations and then Printers.



Select a printer to see the print jobs in the right-hand window.

	File Name	User-specified Data	User	Status	Output Queue	Output Queue Li...	Pages P
	Qpjoblog	PHPJOB	Phptest	Kept (release to print)	Sharp	Qusrsys	3
	Ps81301	PS813	Rjahja	Kept (release to print)	Sharp	Qusrsys	3
	Ps035e01	PS035EBI	Rjahja	Kept (release to print)	Sharp	Qusrsys	2
	Ps035e01	PS035EBI	Rjahja	Kept (release to print)	Sharp	Qusrsys	2

From the File menu in System i Navigator, there are several options which apply to the selected printer job (print output).



- Open** Open the selected print job. Once open you can print or view it.
- Reply** Reply to Messages.
- Hold** Put the print job on Hold.
- Release** Release job to begin printing.
- Send** Send it to a different printer.
- Move** Move it to a different printer or output queue.
- Delete** Delete the print job.

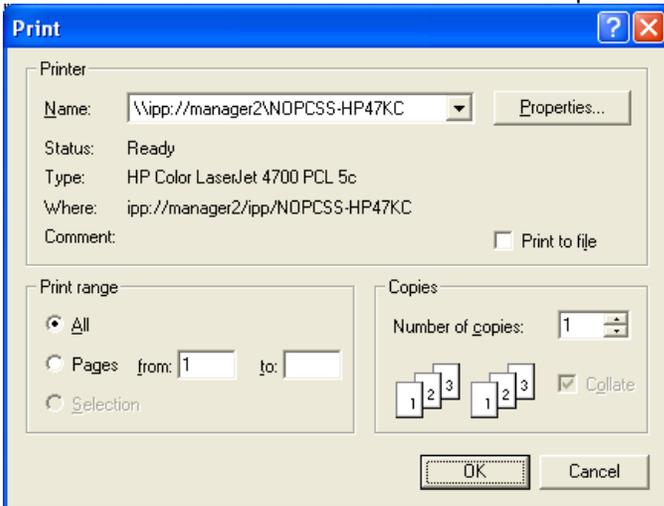
**Note:** Print and Print Preview menu items are for printing a list of print jobs. To print or view a specific job, you must first open it.

Printing a specific job:

Open the print job in document Viewer to see the document by doing one of the following:

- Double click the print job.
- Use the file menu to "Open" the selected print job.

From the file menu in the Viewer select Print to open the print options window.



Select the printer to use and pages to print as you would any Windows print job.

Move or Copy a document to a different printer:

Open Basic Operations and then Printers.

Select a printer to display the documents for that printer in the right-hand window.

	Output name	User-specified data	User	Status	Printer	Pages per copy	Copies left	Time created	Date created
Prt32									
Prt33	Ps035a01	PS035A	ALDBTERR	Held	PRT33	8	1	12:29:23	12/02/05
Prt34	Prt152	RL033D	ALAALYNN	Printed and kept	PRT33	8	1	19:45:15	05/02/06
Prt35	Ps035a01	PS035A	ALDBTERR	Held	PRT33	9	1	11:36:47	12/02/05
Prt36	Prt152	RL033D	ALAALYNN	Printed and kept	PRT33	10	1	19:45:17	04/28/06
Prt37	Prt152	RL033A	ALAALYNN	Printed and kept	PRT33	10	1	19:45:15	05/05/06

Move a document:

Select a document to be moved and drag it to the printer in the right-hand column that you want it moved to. The document will be moved to the destination printer. For large documents this could take some time.

Copy a document:

Select a document to be copied and drag it to the destination printer using the right-hand mouse button instead of the normal left-hand button. When you drop the document into the destination printer you will be given the option of Move Here or Copy Here. Select Copy Here and a copy of the document will be added to the printer.

Delete a document:

Open Basic Operations and then Printers.

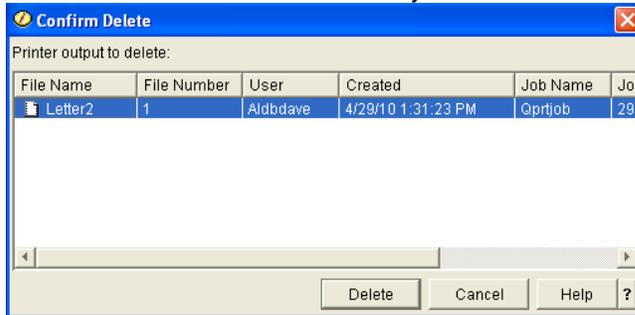
Select a printer to display the documents for that printer in the right-hand window.

	Output name	User-specified data	User	Status	Printer	Pages per copy	Copies left	Time created	Date created
Prt32									
Prt33	Ps035a01	PS035A	ALDBTERR	Held	PRT33	8	1	12:29:23	12/02/05
Prt34	Prt152	RL033D	ALAALYNN	Printed and kept	PRT33	8	1	19:45:15	05/02/06
Prt35	Ps035a01	PS035A	ALDBTERR	Held	PRT33	9	1	11:36:47	12/02/05
Prt36	Prt152	RL033D	ALAALYNN	Printed and kept	PRT33	10	1	19:45:17	04/28/06
Prt37	Prt152	RL033A	ALAALYNN	Printed and kept	PRT33	10	1	19:45:15	05/05/06

Select the document to be deleted.

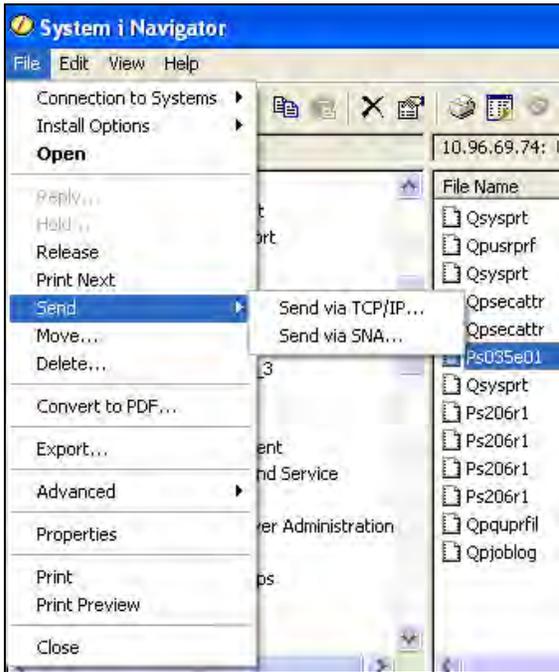
From the **File** menu select Delete or click the black "X" on the toolbar.

In the Confirm Delete window verify the correct document is listed then click **Delete**.



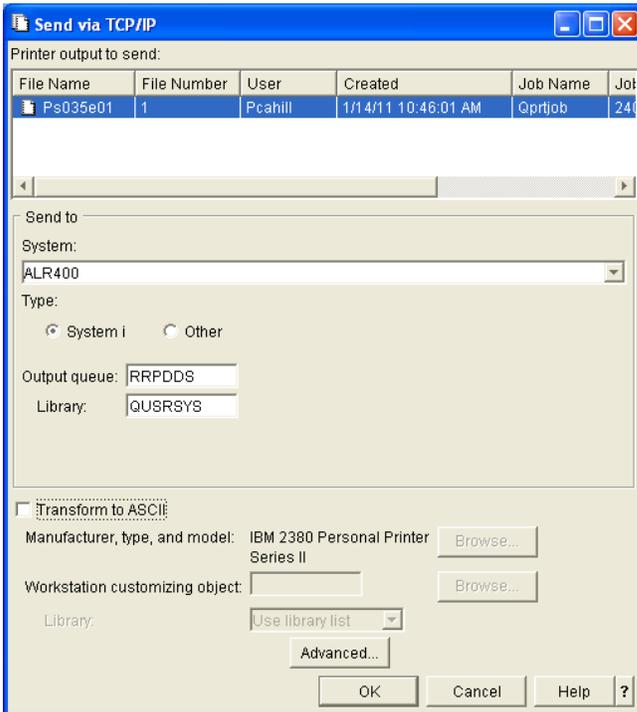
Sending the print job to a user on a different System:

From the File menu select Send.



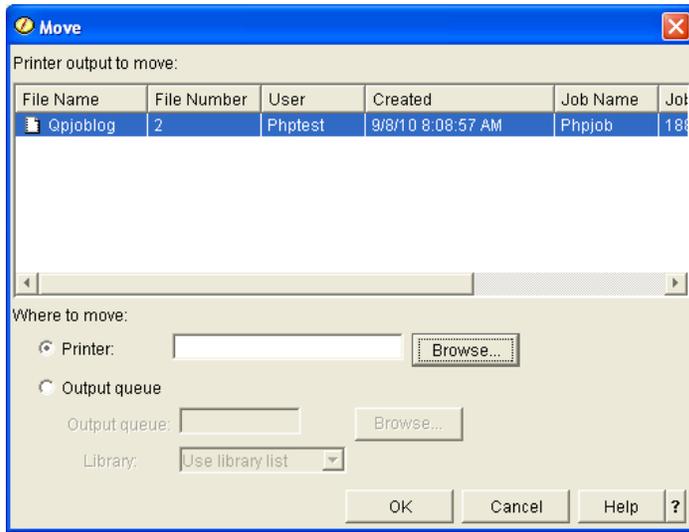
Send via TCP/IP to a different System i:

- Choose a System i host name or IP address
- Click on System i radio button
- Fill in the known output queue and library
- Deselect Transform to ASCII
- Click OK.

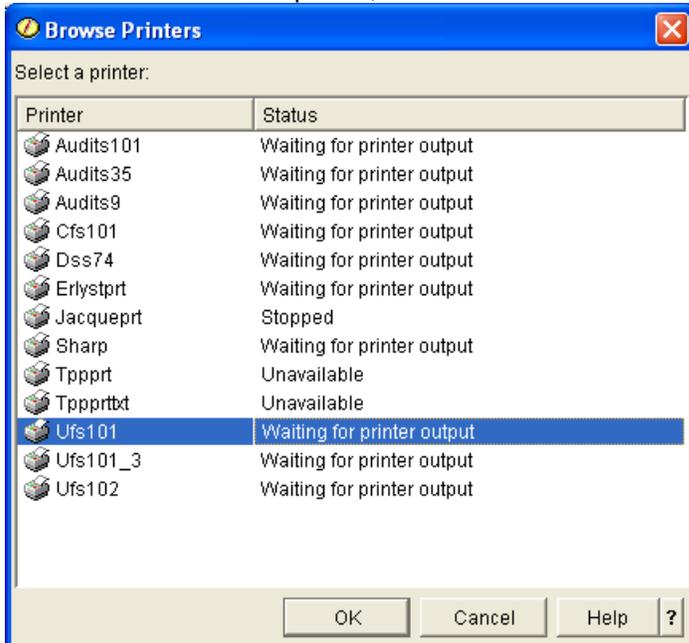


Moving the print job to a different printer:

From the File menu select Move.



Click Browse to select a printer, and click OK.



Click OK again to complete the process.

# Temporarily Change the Library Search Order for Editing 1099 files

**Note:**

This procedure will change the way your current i5 session looks for the files it needs. The i5 will look at the library you add before any other library. If it finds the files it needs there it will use them without looking further.

The library you add will only be in effect only as long as you are logged on. When you log off, the Library Search Order will return to the way it was before.

1. At a command prompt enter **ADDLIBLE** and press **F4**

```
Selection or Command  
===> addlible
```

2. Enter the library you temporarily want to be the first one used

**Library = alta1099**

**List Position = \*First**

```
                Add Library List Entry (ADDLIBLE)  
  
Type choices, press Enter.  
  
Library . . . . . alta1099      Name  
Library list position:  
List position . . . . . *FIRST    *FIRST, *LAST, *AFTER...  
Reference library . . . . . _____ Name
```

3. Press **Enter** to save your library list and exit.

You should get a message below the command line: Library ALTA1099 added to library list.

```
Selection or Command  
===>   
Library ALTA_1099 added to library list.
```

4. Verify the library was added

At a command prompt enter **CHGLIBL** and press **F4**

Verify that the first library is ALTA1099.

```
                Change Library List (CHGLIBL)  
  
Type choices, press Enter.  
  
Libraries for current thread . . ALTA1099      Name, *SAME, *NONE  
                                QTEMP  
                                QGPL  
                                RCDTAHQ  
                                RCOBJHQ  
                                TRG_TOU
```

5. Press **F3** to exit. You can begin processing 1099 files using the files saved in the ALTA1099 library.

## Temporarily Change the Library Search Order

Note to MIS: The library search order works much as the PATH command does in DOS.

At a command prompt enter **ADDLIBLE** and press **F4**

**Library** = the library you want to add. example: zlib

**List Position = First**

**F3** to exit

At a command prompt enter **CHGLIBL** and press **F4**

Verify that the desired library is listed first.

**F3** to exit

The changes will only be in effect as long as the user is logged on. When the user logs off the Library Search Order will return to the way it was before.

## Transfer a Report from AS400 Spool file to a Text Document (LDI process/iSeries Access Data Transfer)

Sign on to the AS400

Create your report as you would normally  
Immediately, on the command line enter: **WRKSPLF**

This will display a list of print jobs in the spool file for the user that is currently logged on.  
Select the report you want to transfer  
Take **Option 3 Hold** to hold the report  
Take **Option 8 Attributes** and record the following information

- File
- Job
- User
- Number (under Job)
- Number (under File)

Exit the spool window.

On the command line enter: **CALL CLSPL03**  
Enter the information recorded from the Spool File Attributes

- Spooled file = File
- Job Name = Job
- User = User
- Number = Number (under User)
- Spooled file number = Number (under File)

In the field "Copy to File" always enter "REPORTS" without the quotation marks.  
This is a file in the LDI library (LDILIB) where the report will go

Press Enter and the report will be copied to the Reports file.

On the command line enter: **WRKSPLF**  
Delete the report just placed on hold.  
You can close the AS400 program at this point if you like.

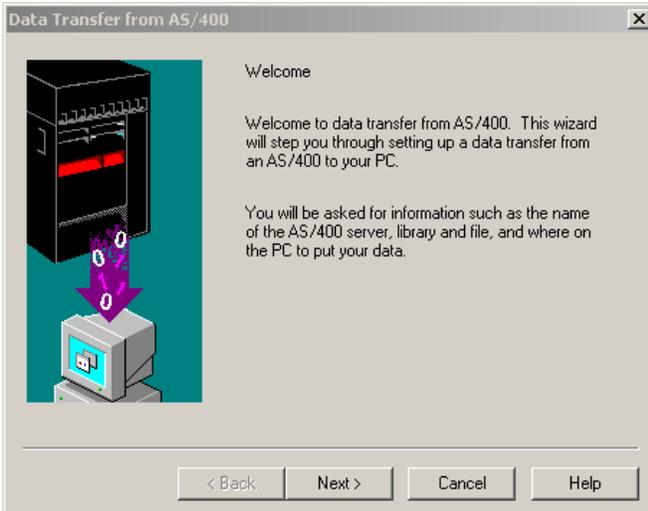
### Option 1 – Step-by-Step process

On the PC Right click the desktop  
Select New...  
Select **Data Transfer from AS400** (don't confuse it with Data Transfer to AS400)  
The following window will open.

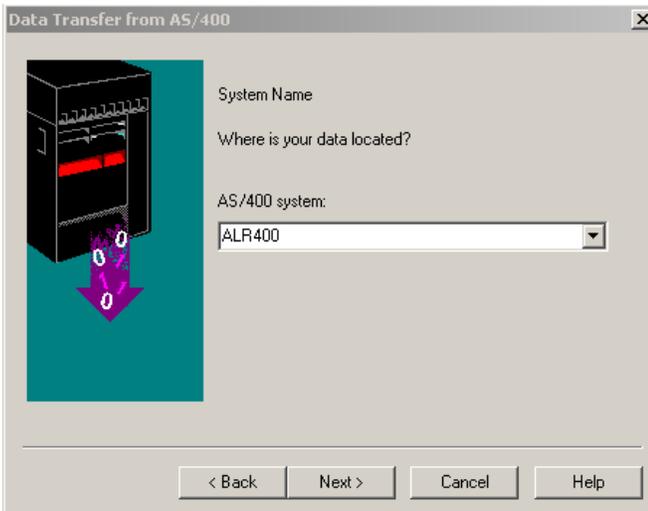
### Option 2 – Enter directly in Transfer Window

Windows Start menu – programs – IBM Client Access – Data Transfer from AS400  
Enter the information found on page 7 of this procedure directly into the "Data Transfer From AS/400" window

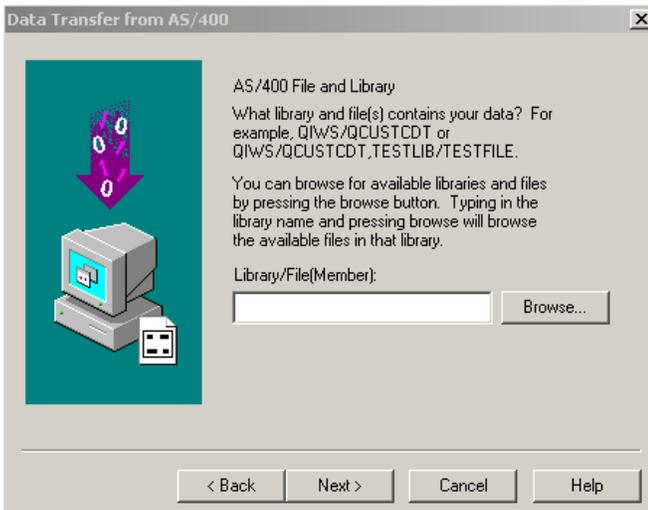
### Click Next



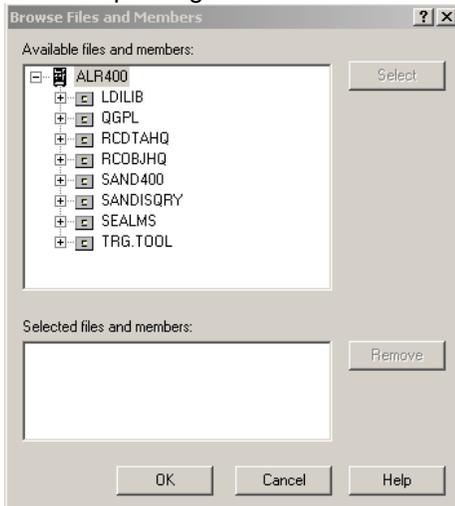
### Click Next



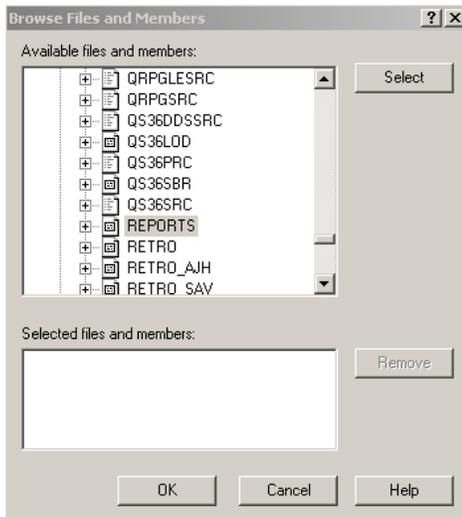
### Click Browse...



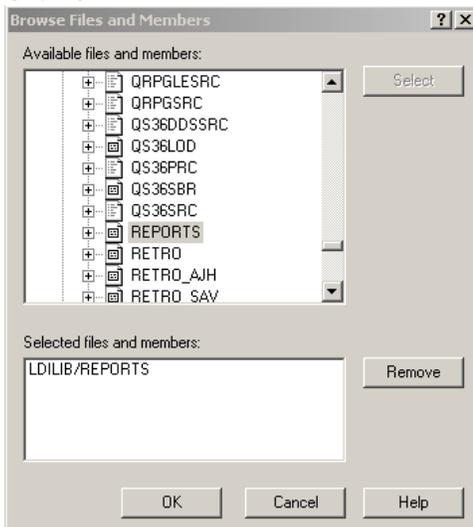
Click the plus sign in front of LDILIB to open a list of files in the library



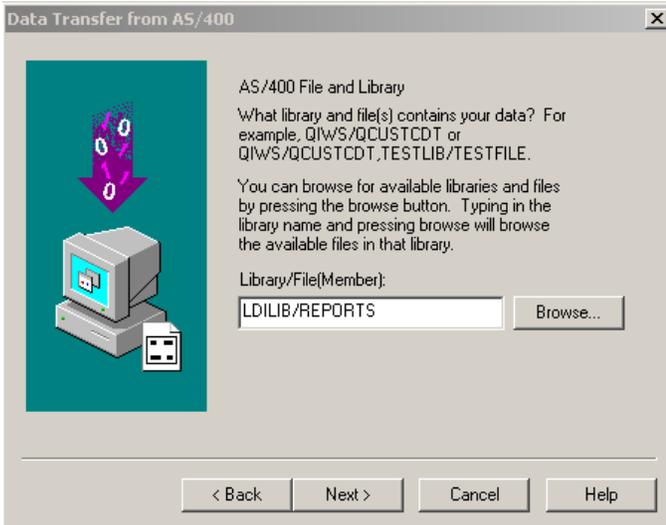
Scroll down to REPORTS and click on it once to highlight it



Click Select to add it to the Selected files and members window  
Click OK



Click Next



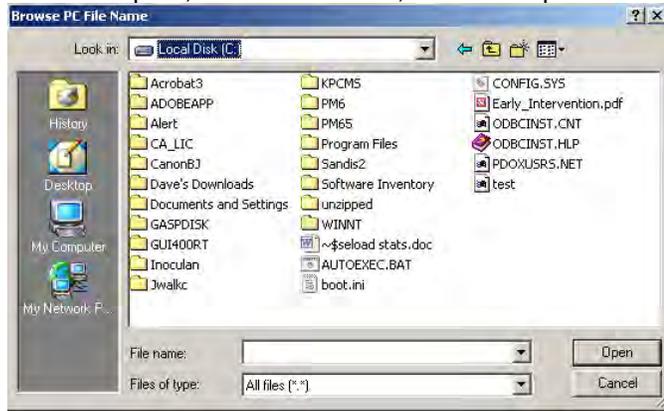
Click Next



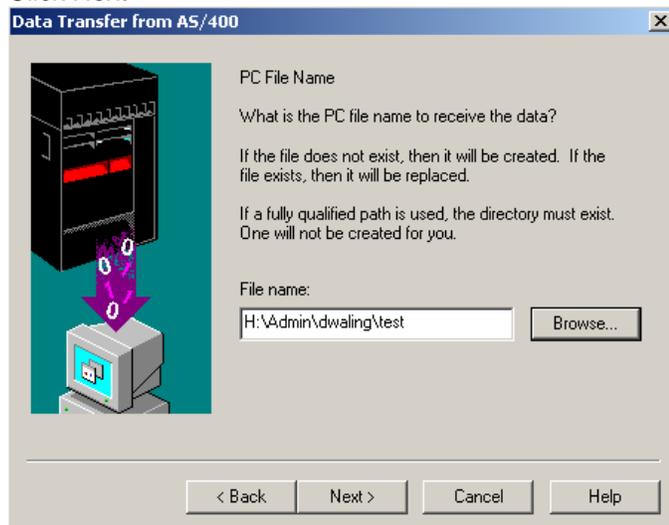
Enter the path and file name where you want the report transferred to or use the Browse... button



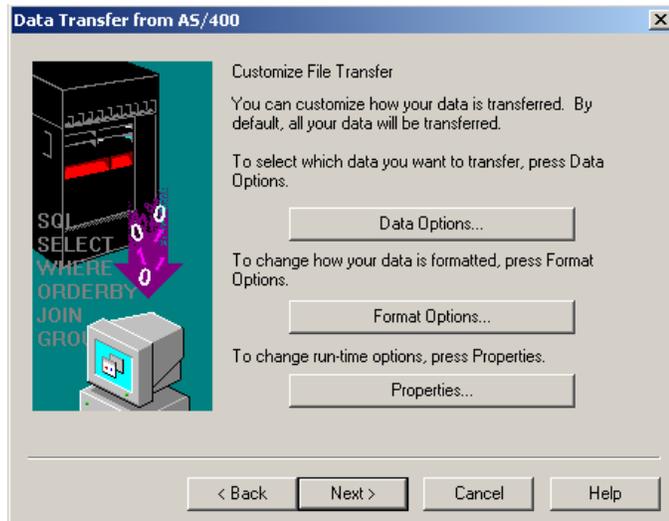
Clicking the Browse... button above opens the standard Windows browser. Select the path, enter a file name, and click Open



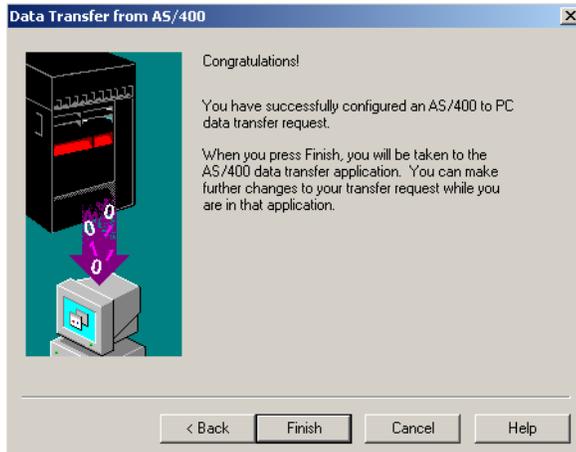
Click Next



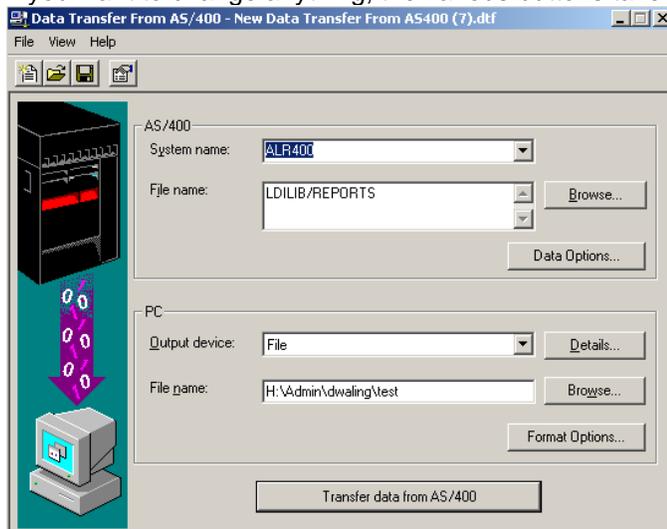
Click Next



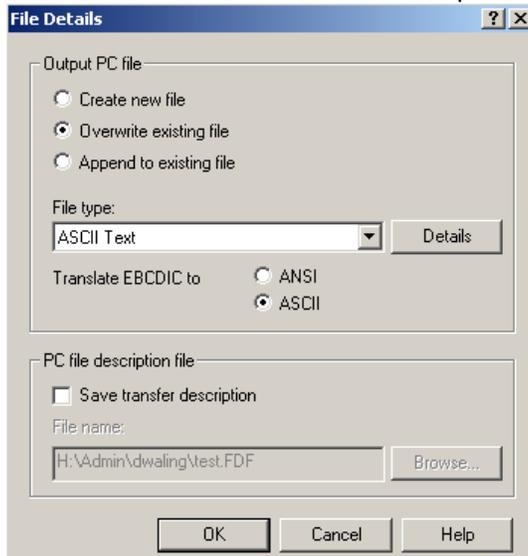
## Click Finish



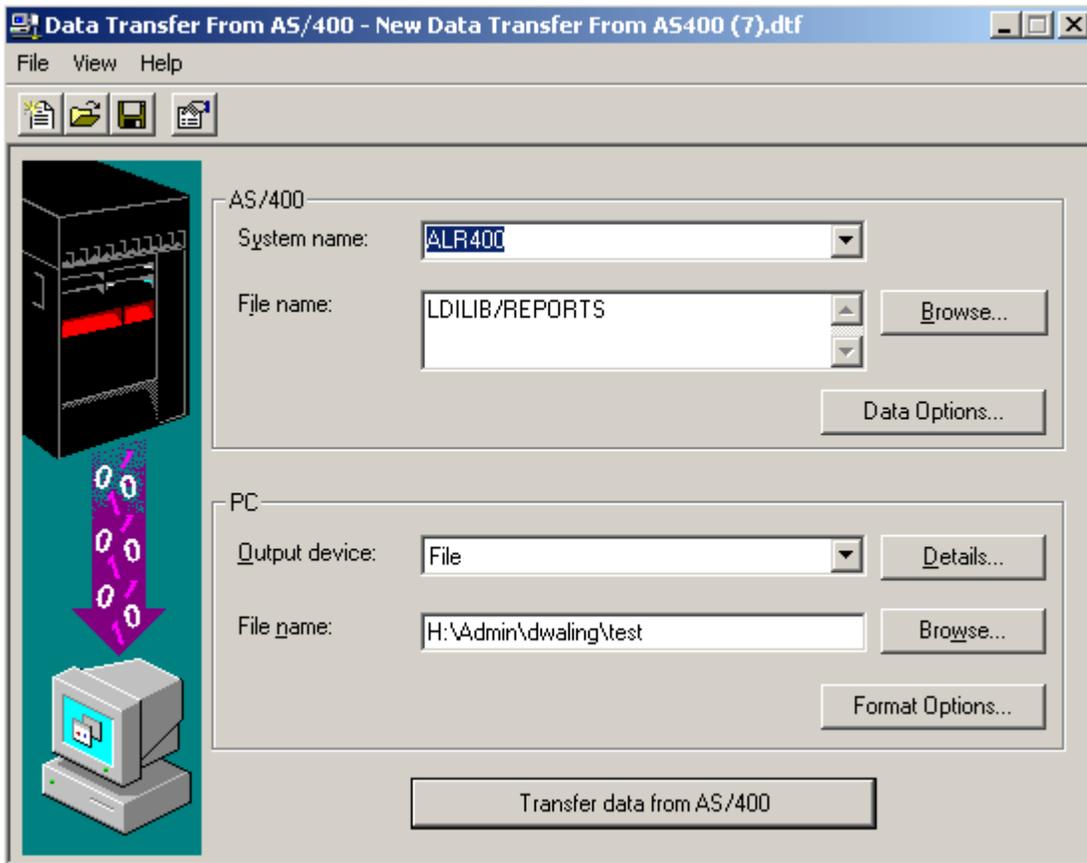
If you want to change anything, the various buttons take you back to previous windows



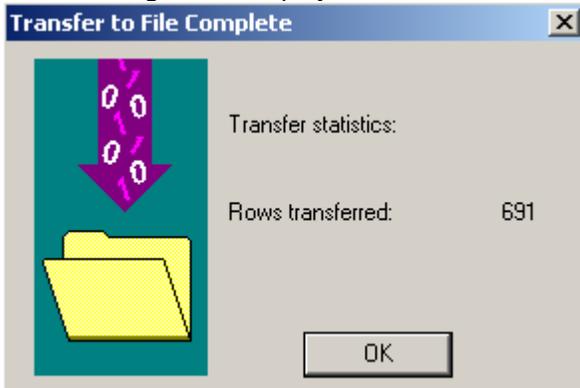
Click the Details... button next to Output Device to display the following  
Check the box for Save transfer description if you will need to repeat the transfer, otherwise, uncheck it



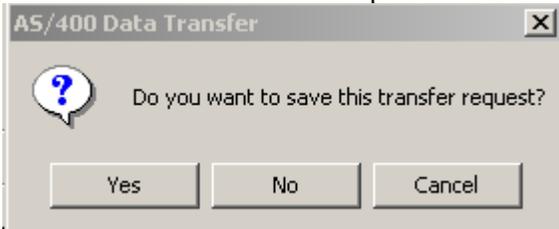
If everything is correct, click Transfer data from AS/400



The following will be displayed when the transfer is complete



If asked to save the transfer request Click No unless you want to save it.



## Turn Off Amber Light on the i5

The Amber light on the i5 indicates there is a problem with the system. Once that problem has been resolved the light can be turned off.

1. Log on to the i5 as QSECOFR.
2. Open the System Services menu by entering **STRSST** on the command line.
3. Take Option **1 Start a Service Tool**.
4. Take Option **7 hardware Service manager**.
5. Take Option **6 Work with Services Action Log**.
  - a. Enter a date range for the log.
  - b. If there are items to acknowledge press **F6**.
  - c. Then press **F10** to confirm.
  - d. The amber light should go out.

## Update UFS Report Printer Defaults

Sign on as System Operator user

On Command Line: Type **GO SYOPMAIN**, Press Enter (to access the System Operator Main Menu)

```
SYOPMAIN          SYOPMAIN Menu          4/20/11
JWEIMER          System Operator Main Menu    14:12:57
Select one of the following:
      Options                               Menus
1. Display System message queue           13. Communications/Devices - SYOPCMDV
2. Work with system printer               14. Backup/Restore         - SYOPBKRS
3.                                         15. Electronic Billing/EFT - SYOPEB
4. Work with all active jobs              16. File Transfer         - SYOPFTFR
5.                                         17. File Transmissions    - SYOPTRN
6. Work with messages                    18.
7. Send a message                         19. Archive File Purge
8.                                         20.
9. Check UFSPGMS msgq                     21.
10. Check SANDPGMS msgq                   22. Power up/down system  - SYOPSIPL
11. Update Report Printer Defaults         23.
12. Print file layout                     24. Signoff
```

On Command Line . . . Type: Option **11**, Press Enter

```
HQR400          Report Printer Defaults          4/20/11
JWEIMER          14:13:58
ASR002

Report ID . . . . . _____
```

Enter the Report ID . . . i.e. **PS035E01**, Press Enter

```

HQR400          Report Printer Defaults          4/20/11
JWEIMER                               14:15:13
ASR002

Report ID . . . . . PS035E01

Default printer . . . . *OUTQ
Form type . . . . .
Number of copies . . . . 1
Hold report . . . . .  No
                    Yes
Save spooled report . .  No
                    Yes
Duplex . . . . .  No
                    Yes
                    Iumble

F3=Exit  F4=Prompt                               F21=Delete

```

At this point you can specify a printer you want the report to use, the form type, number of copies, if you want to put the report on hold, save spooled report, or print duplex (two-sided)...

**Default printer . . .** To specify a specific printer for the report to use, enter the printer name. Press F4 to prompt for a list of available printers on your system

```

                Specify Value for Parameter RPTPRT

Type choice, press Enter.

Printer Name . . . . . *OUTQ

AUDITS101
AUDITS35
AUDITS9
CFS101
DSS74
ERLYSTPRT
JACQUEPRT
SHARP
UFSPDF
UFS101
UFS101_3
UFS102

More...

F3=Exit      F12=Cancel

```

(\*OUTQ will print to Default printer of the User)

**Form type . . .** Leave blank (recommended), or enter a specific Form name (i.e. SPEC)

**Number of copies . . .** Defaults to 1; to change, enter number of copies to be printed every time the report is created

**Hold report . . .** Select **Yes** to put report on hold report or **No** to release it for printing immediately

**Save spooled report . . .** Select **Yes** to save spooled report or **No** to not save the spooled report. (Note: a Saved spool file will not appear as saved until printed)

**Duplex** . . . Select **No** to print on one side only (Note: If you use the duplex option, you're probably going to want to select **Tumble**)

For one report in particular, PS035E01 – the Inbound Audit Report, you will also get the option to specify if you want it to break on invoice # or not.

HQR400	Report Printer Defaults
JWEIMER	
ASR002	
Report ID . . . . .	<u>PS035E01</u>
Break on Invoice # . . . .	<input checked="" type="radio"/> <b><u>N</u>o</b>
	<input type="radio"/> <u>Y</u> es

**Break on Invoice #** . . . Select **Yes** for a page break by Invoice # as well as by Vendor or **No** to print the report with page break by Vendor only.

The option to control printer defaults is only available for UFS reports, and is not available for special form reports, like checks.

## Working with Files

STRPDM = Programming Development Manager  
Work with members (files)

Programming Development Manager (PDM)
Select one of the following:
1. Work with libraries
2. Work with objects
3. Work with members
9. Work with user-defined options

Specify Members to Work With
Type choices, press Enter.
File . . . . . <u>SCLIENT</u> Name, F4 for list
Library . . . . . <u>SAND400</u> *LIBL, *CURLIB, name
Member:
Name . . . . . <u>*ALL</u> *ALL, name, *generic*
Type . . . . . <u>*ALL</u> *ALL, type, *generic*, *BLANK

Work with Members Using PDM	HQR400
File . . . . . <u>SCLIENT</u>	
Library . . . . . <u>SAND400</u>	Position to . . . . . _____
Type options, press Enter.	
3=Copy    4=Delete    5=Display    7=Rename    8=Display description	
9=Save    13=Change text    18=Change using DFU    25=Find string ...	
Opt    Member    Date    Text	
<u>—</u> SCLIENT    03/24/11    Consumer Master	

## Working With AS400 Printers

- Create a new AS400 Printer by copying an existing printer
- Rename an existing AS 400 printer
- Create a New Printer on the AS400 to replace an existing printer (same IP)
- Assigning a printer in a user profile
- Create NEW Remote OutQueue and Message Queue and assigning users
- Changing Multiple Users to remote printers (from green screen)
- Turning off separator page with remote writers

### **Create a New AS400 Printer (New IP) by copying an existing printer**

Enter wrkdevd ..existing printer:  
Select the existing printer and click Copy  
Enter the new printer name and description  
Enter new IP address  
Click OK

Enter wrkcfgsts \*dev  
Select the new printer and Vary it On

Enter wrkwtr \*all  
Select the new printer and start it

Add the printer to any User Profiles that will use the new printer.

### **Rename an existing AS 400 printer**

Enter wrkwtr \* all  
Select the new printer and stop it  
Enter wrkcfgsts \*dev  
Select the new printer and Vary it Off

Enter wrkdevd ..existing printer:  
Take Option 7 to rename the printer  
Enter the new printer name and description  
Change all User Profiles that were using the old name to the new printer name

### **Create a New Printer on the AS400 to replace an existing printer (same IP)**

Enter wrkwtr \*all  
Select the new printer and stop it  
Enter wrkcfgsts \*dev  
Select the new printer and Vary it Off  
Enter wrkwtr  
Select the printer and click End  
Click OK  
Enter wrkcfgsts \*dev  
Select the printer and click Vary off  
Enter wrkdevd ..existing printer;:  
Select the existing printer and click Copy  
Enter the new printer name and description  
Enter new IP address  
Click OK  
Enter wrkcfgsts \*dev  
Select the new printer and Vary it On

Enter wrkwtr \*all  
Select the new printer and start it  
Add the printer to any User Profiles that will use the new printer

## Assigning a Printer in a User Profile

Print Device:

AS/400 printer (Enter wrkwrtr \*all and check printer Type is PRT)

Print Device = ~printer name:?

Output queue = \*WRKSTN

Library is blank

Remote Writer:

AS/400 remote printer (Enter wrkwrtr \*all and check printer Type is RMT)

Print Device = \*WRKSTN

Output queue = ~printer name:?

Library = QUSRSYS (or whatever library it is set up for.

Example of an AS/400 Print Device called "netprt15" (Remote writer is different)

## Create NEW Remote OutQueue and Message Queue

This example establishes an OutQueue NETPRT## for laser printer at IP address 10.2.5.236 that will use message Queue NETPRT##Q\*

### Create a Message Queue

At the command line type: CRTMSGQ - Press F4

Name = NETPRT##Q (Printer Queue Name)

Library = QUSRSYS

Text Unit 3 Sandis Printer (Description)

Press Enter or Click OK

Look for Msg at bottom to confirm

### Create an Output Queue

At the command line type: CRTOUTQ - Press F4 Output Queue = NETPRT## (Printer Name) Library = QUSRSYS

Remote System = \*INTNETADR - Press F10 (Click Advance)

Remote Printer Queue = 'RAW'

Click on down arrow to Page Down

Writers to Auto Start = 1

Queue .....= NETPRT##Q Library = QUSRSYS

Connection = \*IP

Destination = \*OTHER Press ENTER Twice to continue

Manufacturer Type and Model = \*WSCST -Press Enter

Workstation customizing object= HP4\_198

Print separator page = \*NO

Library = QGPL

Internet Address 10.2.5.236 (TCP/IP address) or Host Table Name Page Down

Text Description = Unit 3 Remote Printer

Press ENTER

Look for Msg to confirm

### Assigning Users (Must have \*SECADM Authority)

At the command line type: WRKUSRPRF ALUSERNAME \*- Press ENTER

Highlight all the users for that unit

Click Change

Press F10 = Additional Parameters

Page Down until you see the MSGQ and Output Queue

MSGQ = NETPRT##Q

Output Queue = NETPRT##

Library QUSRSYS

### Changing Multiple Users to remote printers (from green screen)

At the command line type: WRKUSRPRF ALUSERNAME \* (EX: ALKO\*)

Enter "2" for the users to change (to show field names press enter and then F11) then tab to command line

At the command line type: PRTDEV(\*WRKSTN) OUTQ(QUSRSYS/NETPRT##)

Press enter and the action is complete, check new settings.

**Turning off separator page with remote writers**

When "Auto Start" is set for a remote writer it cannot be modified until writer is "END"

At the command line type: WRKOUTQ

Find printer and enter number "9" & press ENTER

Type "4" to end the writer and press ENTER

Type WRKOUTQ again, find the printer enter a "2" and make the changes.