QView Pro

Print Queue Manager

Version 2.2

An evaluation copy of this product is also available. While the purchased version of this software may not be copied, the evaluation version may be distributed freely. Please contact us if you would like a demonstration copy of our products.

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Overview

QView Pro is a utility designed to allow complete control of multiple print queues on a Novell network. Most of the functions provided in Novell's pconsole are available in QView Pro. QView Pro also allows you to view the contents of more than one print queue at a time. The following is a list of features:

- View multiple queues at a time.
- Click-Drag-Drop mouse action moves print jobs between queues.
- Complete job control.
- Delete duplicate and oversize print jobs.
- Savable configuration.
- Copy print jobs.
- View and edit print job data.
- Screen Saver when all queues are empty.
- User notification with Novell messages.
- Keep a log file of print queue activity.
- Spool files from a directory.
- Save print data to a file.

System Requirements

The following is a list of system requirements that you will need to run QView.

- Novell Netware. (v2.x or v3.x)
- DOS 3.3 or better.
- Novell workstation shell. (net3, netx, etc.)
- 200k Free memory.

Recommended for improved performance...

- Mouse
- Use as few TSRs as possible.
- The more free memory under 640k, the better.

QView was designed to run on a low end XT computer and a monochrome monitor. You will receive better performance from a faster machine.

QView Pro requires at least 200k of memory to operate. When using QView with little memory, the menus and dialogs will be slow due to overlay swapping. The DOS driver SMARTDRV can help with access time; however, the speed can be increased by running QView with 350k of memory available.

QView has not been tested with Netware v4.0.

Quick Install

This section gives the basic steps to install the QView software on your server. For specific configuration and creating a QVIEW.CFG file, you should refer to other sections in this document that give more detailed information.

1) Copy the following files into the SYS:PUBLIC directory on your server(s).

```
QVINS.EXE          QVIEWTSR.EXE
QVIEW.EXE          QVIEW.HLP
QVINFO.EXE
```

2) Run the qvins utility. (You must be supervisor or equivalent.)

- Select a server that you wish to install.
  This will create a QVIEW_OPERATORS user group.

- Select **Install Queue** and pick each print queue that you wish to install. This will give QVIEW_OPERATORS queue operator status and directory privileges in the queue directory.

- Use the serial number option to enter the serial number provided on your QView Pro distribution disk. An evaluation copy can be installed by leaving the serial number blank. Evaluation copies are good for 60 days.

- Quit qvins.

3) Run syscon.

- Select **Group Information**, choose QVIEW_OPERATORS.

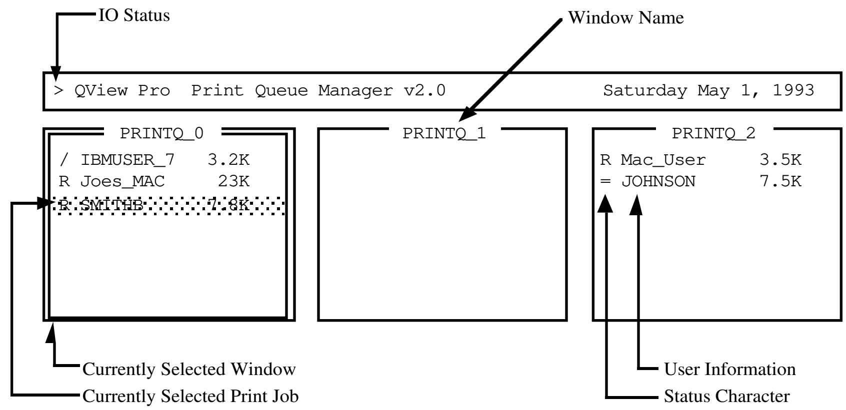
- Under **Member List**, select users that should have operator status to the print queues. Users who are not group members may still run QView, however they may not be able to change the status of all print jobs.

- Quit Syscon

4) Run QView. You may now create a QVIEW.CFG configuration file if you wish to change any of the default options. (From the main menu, select **Save Configuration**) You should read the remainder of this document for information on each of the features.

The Display

The display for QView has been designed to show as much information as possible. The main display appears in the picture below:



IO Status: A status indicator will blink in the upper left corner of the screen to show when QView is scanning the print queues.

Status Characters: The first character in the queue window shows the status of each print job. Possible characters are:

(Spinning /)	Actively printing job.
(Expanding =)	Loading data from workstation, job file size increased.
L	Loading data from workstation, no change in job size.
R	Ready and waiting to print.
W	Waiting for target print time.
H	User or Operator hold on job.
M	Waiting to move to another print queue.
(Spinning triangle)	Moving job between queues.

User Information: The remainder of the line after the status character shows information about the print job. The default settings will show the print job banner, file size, and description. These defaults may be changed in the Display Options menu.

Selected Window: One window will always be currently selected. The Selected window will have a double line border, and the remainder of the windows will be single lined.

Selected Print Job: One print job in the selected window will be selected. This job will be highlighted. If there are no print jobs in the selected window, no print job will be selected.

Keyboard Commands

The following is a list of commands that may be used within QView Pro. These commands do not have affect within menus or job dialogs.

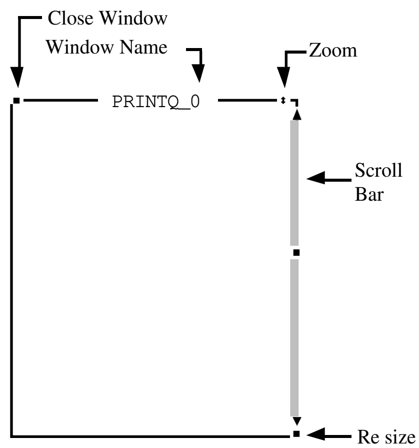
<Left Arrow>	Select the next queue window.
<Right Arrow>	Select the previous queue window.
<Down Arrow>	Select the next print job in the currently selected window.
<Up Arrow>	Select the previous print job in the currently selected window.
<CTRL Arrows>	Resize the currently selected window.
<ALT Arrows>	Move the currently selected window.
ALT A	Add a print queue window.
ALT W	Close the currently selected window.
DEL	Delete currently selected print job.
ALT M	Move the currently selected print job.
ALT C	Copy the currently selected print job.
ALT Z	Zoom currently selected window.
ALT H	Toggle print job hold. (Turns off both user and operator holds, but only turns on operator hold.)
F1	Help menu.
F2	QView performance dialog.
ALT ENTER	Display queue menu for currently selected queue window. (You may use CTRL-ENTER also)
ENTER	Display job options for currently selected print job.
ESC	Display Main Menu.
ALT X	Exit QView Pro.

When viewing menus or dialogs, several key commands have affect:

TAB	Move to next option in dialog window.
Shift TAB	Move to previous option in dialog window.
<ALT - Character>	In menus and dialogs, some characters are highlighted. You may jump to this menu option by pressing ALT and that character.

Mouse Control

Below is a diagram showing a print queue window. A scroll bar will be shown if there are more print jobs in the queue than will fit in the window.



- **Close Window:** Single click on the square in the upper left corner of the window.

- **Zoom Window:** Single click on the double arrow in the upper right corner of the window. (Expands window to full screen.)

- **Move Window:** Click and hold the mouse on the print queue name and drag the window about the screen.

- **Resize Window:** Click and hold the mouse on the square in the lower right corner and move the mouse to resize the window.

- **Scroll Bar:** Click on the up/down arrows to scroll up/down in the window. Click on the shaded area of the scroll bar to jump to a location in the window.

- **Print Job Info:** Double click on the print job to show print job options.

- **Queue Menu:** Double click on the print queue name to show the queue options menu.

- **Main Menu:** Single click on the QView title box at the top of the screen to display the main menu.

To view menus and select options, click with the left mouse button. To exit menus, click with the right mouse button, or press ESC.

Moving & Copying Print Jobs

QView includes a feature that will allow print jobs to be moved between print queues. To move a print job between queues, simply click on the job, hold the mouse button down, drag it to another queue window, and release the mouse.

You can also move a print job by selecting the job with the arrow keys and pressing ALT M. You will then be presented with a list of available print queues.

When moving print jobs between queues, only the print job data is moved. No translation is done. This option will only allow you to move jobs between queues of the same printer type. For example, you may move a print job from one PostScript print queue to another, however you can not move a PostScript job to a HPII print queue.

Print jobs that are active cannot be moved. Loading print jobs will be placed on hold and will be moved when loading is complete. Jobs that are loading and are to be moved will be marked with a "M."

If the ALT key is held down while dragging a print job between queues, it will be copied instead of moved. Print jobs may also be copied by selecting job and pressing ALT-C.

Spool Files work in a similar manner. In the Queue Options dialog, you can specify a Service Directory. If specified, files from this directory are placed in the print queue in the same manner that print jobs are moved between queues. You can place a PostScript file into a print queue that is serviced by a PostScript printer but not one that is serviced by an HPII printer.

Main Menu Options

The main menu controls features that affect the operation of QView. To display the main menu, click on the top of the screen with the mouse or press ESC.

The following pages list the options available from the main menu. Options without dialogs can be found on the page "Miscellaneous Options."

Screen Options

The following is the screen options dialog:

```
Animation Speed          43/50 Line Mode
( ) Slow                 (o) Off
(o) Med                  ( ) On
( ) Fast                 ( ) Automatic

[x] Screen Saver    2   Min
Screen Message: No print jobs are waiting for
[x] Auto Tile Windows
[x] Show IO Status Character         [  OK  ]
```

Animation Speed: Sets the speed that the screen characters are animated.

43/50 Line Mode: Available on EGA/VGA monitors. When using "Automatic," QView will switch screen modes as the queue windows fill up. Use the "Auto Tile" option with the 43/50 line automatic mode.

Screen Saver: Use a screen saver after [2] minutes with no jobs in the queues.

Screen Message: This message is displayed while the screen saver is running.

Auto Tile: Automatically re-tile windows when new windows are displayed, windows are removed, or screen mode switch between normal and 43/50 line mode.

Show IO Status: Blink a status character in the upper left corner of the screen.

>	Scanning print queues.
√	Checking for overage print jobs.
#	Checking for files in the service directory.
+	Calculating print job CRC.

Window Options

The following is the window options dialog:

```
Data Query Speed      Show Windows From
( ) 1 second          ( ) QVIEW.CFG config file
(o) 2 seconds         (o) Auto seek all queues
( ) 4 seconds

[ ] Close Off Line Windows
[ ] Re-Open Active Windows
[ ] Queue Status Change Alarm
[ ] Auto Hold Jobs During Edit     [  OK  ]
```

Data Query Speed: This option controls how often QView will query all the print queues. Faster query speed makes QView more accurate but taxes the servers resources.

Show Windows From: Select the method which QView should display queue windows on startup. If QView is to read from the config file, the window settings and placement will be preserved. If QView is to auto seek all queues, the queues use the default queue settings, and the windows are tiled.

Close Off Line Windows: When a queue window's status is "off line" QView will close the window. For setting the criteria for "off line" see the section titled "Status Options." Windows that have been closed will not perform automatic functions. (such as auto deleting or auto moving)

Re-Open Active Windows: This option monitors windows that were closed because they were "off line." If the queue status changes such that they are not "off line," the window will be re-opened. This option must be on at the time the window was closed.

Queue Status Change Alarm: QView will make a chirping sound when a window changes status.

Auto Hold Jobs: When using the edit or view commands in the Job Options Dialog, the print job must be on hold. This feature allows QView to automatically set a hold on the job while you edit or view it.

Message Options

QView can make use of Novell's broadcast message functions to keep users informed about their print jobs.

The following is the Message Options Dialog:

```
[x] Handle Incoming Messages
[x] Notify Users of Job Moves
[ ] Nag Message          Please do not print multiple
[ ] Report Offenses to:  SUPERVISOR
[ ] Report Off Line to:  QVIEW_OPERATORS
[ ] Report Warnings to:  QVIEW_OPERATORS

User Notification
( ) None
( ) Client Name
( ) Banner Name
(o) Any Server / Best Guess         [  OK  ]
```

Handle Incoming Messages: This option will allow QView to display broadcast messages instead of the network shell displaying the message with "PRESS CTRL - ENTER"

Notify Users of Job Moves: QView can send a broadcast message when a print job has been successfully moved from one queue to another.

Nag Message: When a duplicate job has been found, QView can notify the user with a second message a short while later. User notification must also be on. Check the option on the left, and change the message on the right.

Report Offenses to: This option will send a message stating print job offenses (such as duplicates) to the user or group specified to the right.

Report Off Line to: This option will send a message when a print queue changes to "off line" status. Insert the user or group in the field to the right of this option.

Report Warnings to: This option will send a message when a print queue changes to "warning" status. Insert the user or group in the field to the right of this option.

User notification: Select the method in which the print job owner is notified. A description of each notification method is listed on the following page.

User Notification Methods:

None: Sends no message.

Client: Send a message to the user in the "Client Name" field on the same server as the print queue.

Banner: Send a message to the user in the "Banner Name" field on the same server as the print queue.

Any Server Best Guess: This option checks to see if a user specified in the "Banner Name" field is currently logged in. If so, that connection receives the message. If not, QView checks the Client Name. This process starts with the same server as the print queue, and is repeated with all servers until at least one user is notified.

Notes: When QView attempts to use the "Client Name" field, it first checks to see if the connection that placed the job is the same user as the client name. If so, that connection receives the message. If not, every user on the server logged in as "Client Name" will receive the message.

When using the job moving function, the client name field is changed to the login name of the workstation who moved the job. The banner name is the only indication of who sent the original job before it was moved to another print queue. The "Any Server / Best Guess" option will attempt to send the message to the original job owner and not the user who moved the job.

Delete Options

QView can be configured to delete duplicate print jobs. The following menu option controls what QView considers a "duplicate"

The Following is the Delete Options Dialog:

```
Duplicate Job Criteria
[x] Connection Number Match
[x] Client Name Match
[x] Banner Name Match
[x] File Size Match
[ ] Check Between Queues
[ ] Use CRC check

File Size match tolerance +  0 %
Job history for deleting  =  2 Minutes

[x] Prompt before manual delete        [  OK  ]
```

Duplicate Job Criteria: These options specify how QView finds a duplicate print job. All of the criteria of the checked options must be met before a print job has duplicate status.

Check Between Queues: This option checks for duplicates between queues. If this option off, the duplicates must be in the same print queue.

Use CRC check: This option calculates a CRC for each print job. This provides the best method of determining if a job is a duplicate. Print jobs of the same size (such as Print Screens and MacPaint bitmaps) will be deleted when this option is off. Using this option slows QView down considerably however. With this option on, you may notice QView pausing for up to 20 seconds when it is working on a print job larger than 2000k. In the upper left corner of the screen, a '+' will be displayed during CRC checks if the option for IO Status is on.

File Size match: This option specifies a range to match file sizes. If set to 0%, the two print jobs must be exactly the same size.

Job History: QView "remembers" who printed what for a specific amount of time after the job arrived in the print queue. This option specifies how long QView should remember print jobs.

Manual Delete: This option allows you to turn off the "are you sure" message that is displayed when a print job is deleted. (No message is displayed if the print job is automatically deleted)

System Preferences

QView allows you to edit the data associated with a print job. This menu allows you to specify what text editor to use while editing a print job. The default editor is EDIT.COM which comes as part of DOS 5. If you are using DOS 3.3, you must change the editor program.

The external file editor can be any program you wish. If you are working with a PostScript print queue, you may want to change the external editor to a PostScript preview program such as Ghost Script.

Some editors will create .BAK files when editing a file. These are usually left in the print queue directory. You should configure your editor to erase these or you will end up with dozens of .BAK files in SYS:SYSTEM/(QueueDirectory).

When the editor is loaded, QView removes most of itself from memory to give the editor space to work. QView can swap itself to EMS, XMS or disk depending on what is available and the options specified in the following dialog.

The System preferences dialog is shown below:

```
External File Editor      EDIT.COM

Swap file directory       C:\

[x] Use EMS for swap
[x] Use XMS for swap
[ ] Use EMS before XMS               [  OK  ]
```

External Editor: Enter the complete file and path name to the editor you wish to use. If the program is in your search path, only the file name and extension are required.

Swap File Directory: Specify where temporary files are to be stored if needed.

Use EMS/XMS: When using the external editor, QView will attempt to swap to EMS or XMS if these options are checked. This greatly speeds up the time required to edit a print job. If sufficient EMS or XMS is not available, QView will use a temporary file. EMS and XMS are only used for loading the external editor, and not during the normal operation of QView.

Display Format

QView can display several different fields in each window. The following dialog allows the user to configure the information to be shown.

```
Column 1          Column 2          Column 3
( ) None          ( ) None          ( ) None
(o) Banner        ( ) Banner        ( ) Banner
( ) Size          (o) Size          ( ) Size
( ) Client        ( ) Client        ( ) Client
( ) Job           ( ) Job           ( ) Job
( ) Position      ( ) Position      ( ) Position
( ) Descript      ( ) Descript      (o) Descript

Width   12        Width   12        Width 12
                                         [  OK  ]
```

For each column, several fields are available. The width of the column is also configurable. Listed below are the fields and the corresponding areas of the print job they are associated with

None: Leave the column blank.

Banner: Banner name.

Size: The print job file size.

Client: Job client name.

Job: Print job number.

Position: Position in the queue. (1,2,3,4...)

Descript: The description field of the print job.

The width field is the number of characters wide the column should be. Extra characters are truncated. A column type of "None" will have a width of 0. Each column is separated by one space.

Saving Settings

QView can save and restore any configuration. Select the "Save Options" choice from main menu to save the current configuration. The default file name is QVIEW.CFG however any file name can be used.

When QView starts, it can search for a configuration file, or one may be specified from the command line. If the full path and file name to a configuration file is given, that configuration will be used.

If no configuration file is specified at the command line, QView will check the current directory and the search path for a file with the name "QVIEW.CFG" If one is found, QView will use it to load its preferences.

If you wish to change the position of the queue windows, or the options for any window, you will need to specify "Display queues from QVIEW.CFG file" in the queue options dialog. If QView seeks all print queues on startup, each queue window will be assigned default options.

If the configuration file specifies print queues on a server that you are not logged into at the time you run QView, these queues will be ignored.

If you are using QView on a dedicated machine, you may wish to have a separate configuration file for the one workstation. Having several copies of QView running which are set to delete duplicates may cause conflicts as more than one machine tries to delete a duplicate print job.

When loading QView, you may specify the configuration file from the command prompt as shown in the following example:

```
qview  c:\stuff\qview.cfg
```

Note: QView Pro will not read QVIEW.INI files from older versions of QView.

Note2: If QView is configured to "Auto Seek all Queues" in the Window Options dialog in the main menu, only the general queue settings will be saved. Settings made for individual print queues will be lost. These include window placement, offending job configuration, and queue window options. To save these options, QView must be set to "Show Windows From QVIEW.CFG config file."

See Also: QVINFO.EXE

QView Performance

The QView Performance Dialog shows information about QView. Below is a description of the dialog:

```
Base Memory                      158K
Memory Currently Available       119K   (75.4% Available)
Largest Contiguous Block         117K
Overlay Buffer Size              120K

Size of one print job             118   (1012 Possible)
Size of one queue window         1654

Number of Jobs Moved              453
Number of Jobs Auto Deleted      2512
Savings incurred by QView     $125.60   (if 1 job = $0.05)

Installed 6/1/93                                [  OK  ]
```

Base Memory: The amount of free memory for windows and menus.

Memory Currently Available: Memory currently available after resources for all active windows and print job tracking has been allocated. The percentage to the right shows the level of resources used.

Overlay Buffer Size: This is the buffer space used to load the overlay resources from the QVIEW.EXE file. This is mainly used for menu and dialog functions. As this buffer size decreases QView will load menus slower. The buffer size will never be larger than 120K, and never less than 30K.

Size of Print Job or Queue Window: Each queue window requires memory to operate. Each print job currently in the queue also requires memory to track the job. This shows the amount of memory QView needs for each window and each print job in every queue displayed.

Number of Jobs Moved: A running total on each server keeps the number of jobs moved from one queue to another. The number displayed is the sum of all servers you are currently logged into.

Number of Jobs Auto Deleted: A running total is kept on each server for each print job that QView has canceled automatically. The number displayed is the sum of all servers you are currently logged in to.

Savings incurred by QView: Assuming each print job is worth 5 cents, the amount of money saved by QView's automatic deleting feature is shown. Obviously some print jobs print more pages than others, so the 5 cents per print is a rough average. (The total is derived from [number jobs auto deleted] x [price per job])

Miscellaneous Options

Several options on the Main Menu that are not listed on the previous pages are listed below.

Remove Queue Windows:	Closes the currently selected window.
Add Queue Windows:	Adds a new window. A selection list of print queues is shown.
Tile Windows Now:	Recalculates each window and arranges them on the screen. Windows are resized each time a window is added or closed when the "Auto Tile" option is on. (see Screen Options for details)
Help:	Show QView's on-line help menu.
Exit QView:	Exit QView.

Queue Window Menu

Each print queue window has a menu associated with it. To display the Queue Options Menu, double click the mouse on the window title, or press ALT Enter.

The Following list of options will be displayed:

```
Queue Status
Offending Jobs
Queue Options
OffLine Status
View Log File
```

Each of these options are discussed in detail on the following pages.

If you wish to save the individual queue window settings, you must select the option to "Show Queues From: QVIEW.CFG config file" in the Queue Options dialog on the main menu. If this option is set to "Auto Seek all queues," each queue window will assume default settings on startup.

Queue Status

Below is the Print Queue Status dialog:

```
Print servers attached          1
Number of jobs in queue         0

[x] Users can place entries in queue
[x] Print Servers can service entries
[x] Print Servers can attach to queue
                                 [  OK  ]
```

You must be a member of the QVIEW_OPERATORS user group to use this option. Check the appropriate print queue options and choose OK. The status of the print queue will then be updated. These options are the same as those found in Novell's Pconsole.

Offending Jobs

For offending jobs, there are several menu options:

```
Duplicates
Over Size
Over Age
```

Each offending job can be handled in a different manner. The different methods are listed below:

Ignore	QView ignores the offending job.
Hold	An operator hold is placed on the job.
Delay	The job is delayed for [n] minutes. Use the Queue Options dialog to set the delay time.
Schedule	The job is scheduled for a date and time. Use the Queue Options dialog to set the schedule time.
Move	The print job is moved to the "Move Target" print queue specified in the Queue Options dialog.
Delete	The print job is deleted. (even if the job is printing)
Delete	(NonActive) Deletes job only when it is not printing.
End Of List	The print job is moved to the end of the queue.

Duplicates: Duplicates can be handled in all of the ways listed above. When the duplicate is deleted, QView can also send a second message a few seconds later. See the 'Nag' feature in the Message Options dialog for details.

Over Size: The Over Size dialog allows you to specify a file size that is considered to be too large. Over Size print jobs can be handled in all of the ways listed above.

Over Age: The Over Age dialog allows you to specify a job age (in minutes) that is considered to be too old. Only the Ignore, Move and Delete options are available for over age print jobs.

Queue Options

The Queue Options dialog allows custom configuration of the operation of the print queue.

Below is the Queue Options dialog:

```
Auto move jobs
[ ] Always                  [ ] Pause Incoming Jobs
[x] Queue Off Line          [ ] Hold Incoming Jobs
[x] Queue Warnings          [ ] Log Jobs

Window Name               PRINTQ_0
LogFile                   F:\PRINTLOG\PRINTQ_0.LOG
Move Target               <none>
Service Directory         F:\SPOOL\

Schedule jobs for:   02:30:00 am
Delay jobs for  15  minutes                [  OK  ]
```

Auto Move Jobs: QView can be configured to move jobs to another queue automatically. This option allows you to select when jobs are moved. In the above example, jobs will be moved when the queue has either "Off Line" or "Warning" status.

Pause Incoming Jobs: This option allows QView better control over offending jobs. When on, a user hold is placed on all jobs as they enter the queue. After the job is done loading and QView has checked it for offending status, the job is unheld.

Hold Incoming Jobs: This option places a hold on all incoming jobs, however the hold is not released after QView has checked it for offending status. The hold must be removed manually.

Log Jobs Write print job information to a log file if one is specified. You can specify a log file and leave this option unselected to allow the "view log file" option to function.

Window Name: This entry is the name that will be displayed at the top of the window. The default is the print queue name, however you may change this to anything you like.

Log File: If this option is filled, QView will write all print queue activity to the specified log file. Queues can share a common file, or each queue may have a unique file.

Move Target: This option specifies which print queue will receive automatic job moves from this print queue.

Service Directory: If a directory is specified, QView will check the directory every 30 seconds for files. If files are found, they are spooled directly into the print queue. The file's owner is used for the new print job owner. After the file is spooled, the file is erased. Files that are open or in use are ignored.

This option was added for Autocad users. Autocad has an option to allow it to print to a file. You can setup a directory on your server and give everyone read/write access to it. Configure Autocad to print to a spool file in this directory. Autocad will automatically give each print job a unique file name. Next configure QView to service this directory. This will allow Autocad to print to a Novell print queue.

For this option, enter the DOS directory name (not the Novell volume) as shown in the example dialog.

Schedule Jobs For: This option allows you to specify a time to reschedule offending jobs. If an oversize or duplicate print job is to be rescheduled, the time specified here will be used.

Delay jobs for: This option allows you to specify a time to delay offending jobs. If an oversize or duplicate print job is to be delayed, the print job will be delayed for the specified number of minutes.

Offline Status

The Offline Status dialog allows you to configure what criteria are needed to change the status of the print queue. There are two "status" options that QView uses. These are "OffLine" and "Warning." The off line status is usually used to alert QView that a printer is not printing for some reason. The warning status is usually a problem that must be attended to such as a print queue that is backed up with many print jobs.

QView can send a message to a user or group whenever a queue warning or offline status occurs. (See Message Options for details). The Queue window also changes color. Off Line queues are shown with gray letters instead of white letters. Queues with warning status are shown with a red background.

The following is the Off Line status dialog:

```
Queue is "Off Line" when:
[x] Users can not place entries in queue
[x] Print servers can not service queue
[x] No Print Servers are attached to the queue

Queue "Warnings" when:
[ ] Users can not place entries in queue
[ ] No print servers are attached to queue
[x] Print Queue is overloaded

Queue is overloaded after   15  jobs     [  OK  ]
```

Select each of the options that you wish to cause an Off Line status or a Warning status. You may also set the number of jobs that causes a print queue to be "overloaded."

View Log File

This option allows the user to view the contents of the log file. The log file is stored in a ASCII file using tab characters to separate information. The View Log File option formats this file and presents it with column markers. Use the standard cursor keys to view the information.

Print Job Options

The options for a print job can be displayed by double clicking the mouse on the print job, or selecting the job with the arrow keys and pressing enter. The print job options dialog will allow you to view and change specific settings of the print job.

Most of the options in the dialog window are the same as found in Novell's Pconsole. The differences are listed below.

Service Auto-Start If checked, the print server will service the job even if the client has not explicitly released the job. (Possibly due to a network failure.) This is the same as the /KEEP option in the capture command.

Service Restart If checked, the print job remains in the queue if a print server begins servicing the job and then aborts before the job is completed. If this is not checked, the job will be removed if the print server aborts the job.

Banner File Name File name printed on the banner. This field is used by nprint.

Header File Name File name printed on the banner header. This field is used by nprint.

Banner Directory Directory of file to be printed on the banner. Field is used by nprint, and when QView spools a file from a directory.

QView Logged QView "logs" print jobs if it is configured to handle any offending print jobs, or QView is keeping a log file. A print job that is "Logged" has been examined by QView and is not considered to be "offending", or is recorded in the log file.

View View the print job data. Press <Ctrl-H> to toggle to hex view mode while in the job viewer.

Edit Execute the external file editor with the print job file name as the last parameter. (See the System Preferences dialog for details.)

Save As Save a copy of the print job data. You will be prompted for a file name.

Move Move the print job to another queue. A list of queues will be displayed. Press ESC to cancel.

Delete Remove the print job from the queue.

Command Line Parameters

QView can be run with command line arguments. These are detailed below. Any argument not listed below will be ignored by QView.

```
usage:      qview [option] [option...]
```

/RT=x Run Time option. If this option is used, QView will run for the specified number of minutes and exit. /RT=7 will allow QView to operate for 7 minutes before exiting.

/D Dedicated operation. Useful for machines running in a computer lab situation. This prevents any keyboard or mouse action from having an affect on QView. ESC and ALT-X will allow QView to exit.

/NP Use no preference file. If used, QView will run with the default settings.

QVIEW.CFG Specify a preference file. You can save several preference files and call them up by specifying which file to use. If the file is not in the current directory or search path, you must specify the full path name.

Suggested setup:

QView has been designed to operate on a dedicated workstation in a student lab environment. One can operate QView on a workstation running rprinter. A workstation running QView can also be setup to allow periodic use of batch files. Below is an example of such a configuration.

```
@echo off
:begin
qview  /d  /rt=20  c:\qview.cfg
call ANYTIME.BAT
goto :begin
```

QView will start in dedicated mode, and use the preferences saved in the c:\qview.cfg file. After 20 minutes, QView will exit and the batch file ANYTIME.BAT will be executed. This cycle will run indefinitely.

QView TSR

QView Pro also comes with a TSR loader which will allow you to bring up QView in the middle of any program. The loader can be executed by simply typing 'qviewtsr' from the DOS prompt. QViewtsr only uses 7k of standard memory while loaded. The remainder of the program is saved to a temporary file on disk. When QViewtsr is activated by pressing ALT-F10, everything that was loaded after QViewtsr is removed from memory and saved to a second temporary file on disk. The QView program is executed as though it had been run from the command line. After exiting QView, QViewtsr restores the system to the state it was in before activating QViewtsr.

Some applications are incompatible with this method of swapping memory when loading QView. Any program that sets up its own interrupt service routines will cause the machine to lock up when QViewtsr is activated. (by pressing the hotkey) NCSA Telnet and FTP will cause this to happen. QViewtsr can be loaded while these programs are running, only activating it by pressing the hot key will cause conflicts.

QViewtsr can use the following command line arguments:

```
/1          Single swap file.
/A          Don't hide swap file.
/D          Force disk swapping even if EMS/XMS is available
/H [hexkey] Specify hot key in hex.
/K          Do not use mouse management code.
/M          Disable swap message.
/S [path]   Specify drive and directory for swap files.
/U          Unload TSR.
/X          Use XMS for swap.
/?          Help.
```

When using EMS or XMS, QView will take up a considerable amount of memory. (approx. 1Mb of EMS or XMS) Swapping to disk is slower however it saves on ram.

/H allows you to specify a hot key other than the default ALT-F10. The parameter following /H must be in hexadecimal, where the first number pair specifies the shift key combination, and the second number pair specifies the scan code of the trigger key.

```
Valid scan codes (in hexadecimal) are:                        The shift key codes are:
  A - 1E      N - 31      0 - 0B      F1 - 3B      [ - 1A            None       - 00
  B - 30      O - 18      1 - 02      F2 - 3C      ; - 27            RightShift - 01
  C - 2E      P - 19      2 - 03      F3 - 3D      , - 33            LeftShift  - 02
  D - 20      Q - 10      3 - 04      F4 - 3E      / - 35            Ctrl       - 04
  E - 12      R - 13      4 - 05      F5 - 3F      \ - 2B            Alt        - 08
  F - 21      S - 1F      5 - 06      F6 - 40      ] - 1B
  G - 22      T - 14      6 - 07      F7 - 41      ' - 28
  H - 23      U - 16      7 - 08      F8 - 42      . - 34
  I - 17      V - 2F      8 - 09      F9 - 43      ` - 29
  J - 24      W - 11      9 - 0A      F10- 44
  K - 25      X - 2D                  F11- 57
  L - 26      Y - 15                  F12- 58
  M - 32      Z - 2C
```

For example, 0244 means <LeftShift - F10>, 0820 means <ALT-D>, 0517 means <Ctrl - RightShift - I>.

Suggested Setups

QView can be used for several computer lab or office situations. While the following list of suggested setups are common, you are not limited to the examples provided in this section.

Charging for printing with vending cards:

Some computer networks install card readers on printers to charge for printing. This method of print charging works well if the system is not used by many people. If a print job is placed in the queue and the user does not insert their print card, the job may wait in the print queue until someone else inserts their card. Expecting to receive their print, the second user will be charged for the first user's print, and will not receive their own job. In a network where the print queues always have jobs pending, QView Pro can be a great benefit.

To assist in this setup, one can provide a machine equipped with QView Pro near the printers. Qview can be configured to place each print job on hold as it enters the print queues. Users can then unhold their job when they have their print card inserted in the printer. This will allow everyone's print job to be queued but it eliminates the confusion of who's job is ready to be printed.

QView could also be set to remove jobs that are over 15 minutes old. This would keep the print queue clear of old print jobs that users had printed and forgotten about.

Charging for printing with a lab monitor:

Student computer labs on a tight budget may want to charge for printing, but might not want to invest in the cost of vending card readers on their printers. QView Pro can also be a useful tool in this situation.

To charge for printing, one can set up two print queues. The first of these queues could be accessible to everyone. Using Pconsole, a supervisor can set the first queue's 'queue users' list to include the group 'everyone'. This queue would not have any printers attached. The second queue would only be accessible to the QVIEW_OPERATORS user group, and only the lab monitor would be a member of this group.

When a user prints, the job would be spooled to the first queue where it would wait. The user would then ask the lab monitor to print the queued job. The monitor would use Qview Pro to move the print job from the first queue to the second queue, and take payment from the user.

Alleviate the question "Where is my print job?":

Many large computer networks have several printers servicing many print queues. Supervisors or lab monitors may be plagued with users asking about the status of their print jobs. Dedicating a cheap XT computer near the printers can help reduce the number of questions asked. Users can check for their print jobs in several queues at once without having to be instructed on the use of programs such as Pconsole.

Save paper - Remove duplicates:

Often, using a photo copier is faster and more economical that printing many copies of a document. QView Pro can be used to encourage users to make use of photo copiers rather than printing multiple copies. A supervisor can configure QView to monitor print queues for duplicate print jobs. When a duplicate is found, QView can remove the second copy and send a message to the user suggesting that they use another method of making copies.

Printing Autocad plots:

Autocad does not use normal BIOS functions to print to a printer or plotter. Because of this the Novell network shell can not intercept the print calls made by Autocad. One recommended method of printing from Autocad involves printing to a file and using nprint.exe to send the file to a print queue. QView Pro can do this automatically.

The supervisor must create a special directory for Autocad print files. Each user must have full read and write access to this directory. Autocad should then be set to print to a file in this directory. One of the options in Autocad allows it to create unique file names for each print that is made. The supervisor would then set QView to service this directory. As each print is made, QView will spool the print file into the queue and set the job name to the user name of the person who printed from Autocad. One can have several such directories for different users of Autocad, or allow all users to share a single directory.

Uninstalling QView Pro:

To uninstall a demo of QView Pro from a server, use Syscon to delete the QVIEW_OPERATORS user group.

Trouble Shooting

Duplicates are not removed:

QView must be configured in two places in order to delete duplicate print jobs. The first option that must be set is in the Main Menu. Press ESC to display the menu and select Delete Options. This allows the operator to select what criteria will be used to detect a duplicate print job.

The second option that must be set will control what QView does once a duplicate has been found. Select a queue window and press ALT-ENTER. Select the Offending Jobs option. Under the Duplicate menu choice, there are several options. You must select an action to be performed on duplicates for the selected print queue. This should be set to 'delete' if the duplicate print jobs are to be removed. This setting must be made to each print queue that duplicates are to be canceled.

Message not delivered to correct operator:

When a message is to be sent to the QVIEW_OPERATORS user group, QView starts with the server of the affected print queue, and searches for any user that is a member of the group. If one or more users are found, messages will be sent to those users. If no user is found, QView will check other servers until a user is found.

If your system has several servers, and you are logged into only one of those servers, you may or may not receive all the messages qview sends depending on which queues are on your server, and if any qview operators are logged into other servers.

One way to correct this problem is to create a user group on only one server and make qview send messages to this group. Everyone who is to receive messages should be made a member of this second group, and should be attached to the one server. This will allow all the members of the second group to receive all the messages QView sends.

QView locks up on startup:

If QView locks up when run, there are several things that one should check for. The most common source of this problem is a corrupt QVIEW.CFG file. Try running QView with the /NP option (no preferences). If QView executes ok, the configuration file is corrupt. Remove the QVIEW.CFG file and configure QView again.

The second thing to check for is to see if QView has been flagged execute-only. QVIEW.EXE contains overlay files. When the application is run, QView opens itself and reads menus and dialogs as needed from itself. Because of the method used in reading these overlays, QVIEW.EXE must never be flagged execute-only. This may also cause a fatal error message stating that QView can't read overlay file from QVIEW.EXE.

Client names of jobs are changed by moving:

When a print job is moved from one queue to another, QView must create a new print job in the target print queue. QView supplies all the information for the new job from the original print job. Unfortunately, the client name of the print job can not be changed. Netware uses the login of the user who places the job for this field. This causes all the jobs moved by QView to assume the client name of the workstation using QView.

Limiting Access to queues:

Some sites may wish to limit access to print queues. For example, you may have an accounting print queue that only the accounting group has access to, and a payroll queue that only payroll has access to. To allow users to use QView requires a few extra steps.

Install QView for each server and all print queues. Create two new user groups. (For example we can use QV_PAY and QV_ACC). Make users from each department members of the respective group. Next, use Pconsole to make the groups 'Queue Operators' for the print queues they should have access to.

Last, use the QVINFO.EXE program to view a QVIEW.CFG file created with the 'Show Windows From QVIEW.CFG' option set. Note the 'Queue Object ID number' listed for each print queue. (Pconsole will also show this number) Next, use Syscon to view the directory rights assigned to the QVIEW_OPERATORS user group. Each directory listed is for a separate print queue. Part of the directory path will be the Object ID Number. You must grant the same directory to each user group for the print queues the group has access to.

For example, if the Object ID Number for the accounting print queue is BD10005C, then the QV_ACC user group must have RWCEMF rights in the directory SYS:SYSTEM/BD10005C.QDR directory. (Note: this rights list is for 3.11. Rights for other versions of Netware may vary.)

View QVIEW.CFG files with QVINFO.EXE:

Options for QView are saved to the QVIEW.CFG file. This file contains all the settings for the operation of QView. The QVINFO.EXE program can allow the user to view these settings in a more readable format.

QVinfo can be used in the following manner: (Note: output can be routed to a printer)

```
qvinfo c:\qview.cfg  >LPT1
```

This will produce a list of each file server that QView is installed on, and a list of each print queue for each file server. A list of features will be displayed next that will show what each option is currently set to.

If you are having problems with QView saving all of your settings, it is recommended that you use qvinfo on your settings file first.

Distribution Information

A unique serial number is provided for each copy of QView Pro purchased. If you would like to use QView on another server and you do not have an additional serial number, you may install QView as an evaluation copy. To install QView as an evaluation copy leave the serial number blank in the QVINS program.

An evaluation copy of QView Pro may be used for **60 days** on a trial basis. This is designed to give you 30 days to decide on the purchase of this software, and an additional 30 days to obtain a licensed copy.

After 60 days however you must pay for QView Pro or you must remove it. You may not continue to use the software after 60 days without purchasing it. If you fail to do so, you are in violation of copyright laws. If you already have several purchased copies of QView Pro running, you may install QView Pro on another server, and you will have an additional 60 days to register this new copy.

Where to get QView Pro:

If you would like information about our products, please contact us at the following address.

Secure Design
PO Box 475
Corvallis, OR 97339 USA

Internet: support@sdesign.com
sdesign@mcimail.com
Phone: (503) 752-5988
Fax/bbs: (503) 752-5990

Demo products can also be obtained by Internet e-mail by sending a message to: auto-help@sdesign.com with a subject of "help."

For complete ordering and address information, use the CATALOG.TXT file provided with this software.