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Appendix G - More on Commands

Overview

This file provides additional information about the command set built in to the M205/M206. It should be used if you cannot find what you need in the M205/M206 Quick Reference Guide.

Key Features

- different ways to access the M205/M206's built-in command shell, npsh - *npsh Access Methods* on page 2.
- different npsh command prefixes - *Main npsh Command Prefixes* on page 2.
- finding help for the commands on-line - *Getting Command Help* on page 3.
- listing of all commands beginning with "**`store`**" - *Store Commands* on page 16.
- listing of all commands beginning with "**`set`**" - *Set Commands* on page 6.
- listing of all commands beginning with "**`list`**" - *List Commands* on page 4.
- listing of all commands beginning with "**`debug`**" - *Debug Commands* on page 3.
- listing of extra commands - *Miscellaneous Commands* on page 21.

Command Shell Overview

As mentioned in the M205/M206 Quick Reference Guide, the print server comes with an in-depth command shell called "**npsh**". It allows you to manipulate objects like destinations, I/O ports, and models and provides monitoring and troubleshooting capabilities as well.

npsh Access Methods

The manual also discusses the many ways this command shell can be accessed. This includes:

- a Telnet session from a TCP/IP host to the M205/M206,
- a single remote shell command (i.e. rsh, rcmd, remsh) from a TCP/IP host.
- DOS host software such as Novell's PCONSOLE

The M205/M206 can support up to 256 simultaneous TCP connections and 10 simultaneous Telnet sessions. All **npsh** commands except **lp** are available to all of the above methods. The **lp** command is available only to **rsh/rcmd/remsh** clients. *lp* `options` *-d* `destname` on page G-22.

Note: The M205/M206's parameters can also be manipulated through the FTP daemon and through SNMP. Please see *FTP Daemon* on page E-12 and *Managing with SNMP* on page E-19 for details.

Main npsh Command Prefixes

Within the Quick Reference Guide, the most common command prefixes are covered as well. All configurable commands either start with "**`store`**" or "**`set`**", troubleshooting commands usually start with "**`debug`**", and view commands start with "**`list`**".

Note: If the "**`store`**" prefix is used, the M205/M206 must be re-powered to make the changes take effect. Since "**`store`**" affects Flash settings only, the print server must reset and read the new settings now in Flash.

Note: If the "**`set`**" prefix is used, a "**`save`**" command must be executed as well so that the new settings are retained after power cycles. Since "**`set`**" only affects the temporary settings in memory, they will be lost after a power cycle unless they are told to be saved to Flash, or permanent memory.

npsh Prompt

When npsh is accessed through a Telnet session, a prompt is displayed after login to indicate that it is ready to accept a command from the user. The Telnet prompt is formatted **`ipaddress:userid>`** where *ipaddress* is the IP address of the M205/M206 and *userid* is the user ID of the currently logged-in user. For example,

```
192.75.11.32:root>
```

where **192.75.11.32** is the M205/M206's IP address and the user is **root**.

User Accounts and Permissions

When you log into the M205/M206, you either log in as a **guest** or as a **root** user. The commands you will be able to utilize on the print server depend on which login name you use. By default, there is one **root** user and one **guest** user; users can then be added to this with either permission level.

Users with **root** permission and execute all commands: users with **guest** permission can not do any configuration and can only execute commands that display settings on the M205/M206. However, they can use **ping** and **telnet** as well.

list [default|stored] user on page G-6 to look at current settings. *set user add|del* `username` on page G-15 to see how the **root** user can change these settings.

Getting Command Help

The M205/M206's command shell provides several on-line help tools. These include:

"?" Command Typing "**?**" once logged in to the command shell will produce a full listing of all commands available.

Command Prefixes Typing in the beginning of a command will produce an error message showing the correct syntax. For example, typing in "**store tcpip**" will produce a list of all commands that start with this prefix.

Complete Command List

This section outlines the entire M205/M206 command set including the command syntax, a description, and in most cases, an example for each command listed.

Note: If you see the word "***ifnum***" (which stands for "interface number") in any npsh commands, you should substitute a "**1**" unless told otherwise. This "**1**" represents the one network interface (i.e. Ethernet) supported by the M205/M206.

Debug Commands

The "**debug**" set of commands help troubleshoot problems that may occur on the M205/M206. Some of the output may be cryptic but it helps when troubleshooting with Microplex Technical Support.

`debug eeprom`

List ROM contents.

`debug io`

List statistics from the I/O port module.

`debug ip`

List IP stack statistics.

`debug lpd`

List statistics from the lpd daemon.

`debug lpq`

List statistics from the queue module.

`debug mem`

List statistics from the M205/M206's memory module.

`debug netbios`

List NetBIOS (i.e. Windows 95 and Windows for Workgroups) statistics.

`debug nif`

List network interface statistics.

`debug novell`

List file and print servers.

`debug tcp`

List TCP stack statistics.

List Commands

These commands list the *current* or *working* settings for a particular section within the command shell. To view stored settings in Flash, you'll need to add in "**`stored`**" within the beginning of any of the following commands. For example, "**`list prn`**" shows you the current PRN settings but "**`list stored prn`**" shows you the settings sitting in Flash. Normally these should match. You may also type "**`list default`**" to view the factory default settings.

`list [default|stored] arp`

List the contents of the M205/M206's **`arp`** table.

`list [default|stored] date`

List the current date.

`list [default|stored] dest`

List the current destination settings (e.g. names and mapped I/O port, model used, logpaths, state and service(s)).

`list [default|stored] diff`

List the differences between the current settings and the stored settings in Flash. Normally, you want these values to match so issue a "**`save`**" command followed by a "**`reset`**".

`list [default|stored] ifc`

Display all of the NIT modules' physical properties such as their interface number and Ethernet address.

`list [default|stored] key`

List the license details and license key number.

`list [default|stored] logins`

List any active user logins on the M205/M206.

`list [default|stored] logpath`

List the current logpath settings (e.g. names and mapped destinations).

`list [default|stored] model`

List the current model settings (e.g. names and mapped destinations).

`list [default|stored] prn`

List the current parallel port settings (e.g. mode).

`list [default|stored] pserver`

List the current general print server settings (e.g. print server name and Novell mode).

`list [default|stored] rprinter`

List any current Novell RPRINTER definitions.

`list [default|stored] sysinfo`

List the current M205/M206 system information (e.g. contact name and protocol stacks enabled).

`list [default|stored] tcpip`

List all current TCP/IP network settings (e.g. IP address and subnet mask).

`list [default|stored] test`

List the status of output tests on the I/O port.

`list [default|stored] time`

List the current time on the M205/M206.

`list [default|stored] user`

List the current user definitions (e.g. user names and types).

`list [default|stored] var`

List all pre-defined variables including any newly created ones. Any of these defined variables can be referenced in a string by placing a "**`$`**" before the variable name (e.g. "**`set model m1 trailer $FF`**").

Set Commands

These settings alter the current or working settings in memory only. Therefore, they will be lost if the M205/M206 is power cycled. To ensure this doesn't happen, be sure to issue a "**`save`**" command so the current settings get written to Flash.

`set date` ***`year month day`***

Set the current date noting the four-digit ***year***, the two-digit ***month*** from 1 to 12, and the ***day*** being the number in the month. If the M205/M206 is reset, this value will be lost so you will need to reset the date again.

```
set date 1997 02 10
```

`set dest` ***`destination`*** **`backchannel [prn]`**

Enables/disables IEEE 1284 nibble mode over parallel port. For example, to turn the backchannel on:

```
set dest d1prn backchannel prn
```

To turn it off:

```
set dest d1prn backchannel
```

`set dest` ***`destination`*** **`name`** ***`newname`***

Change the current name of the ***destination*** to a new name as indicated by ***newname***. This ***newname*** must be nine characters or less or else it will be truncated and these names are case sensitive.

Note: When you change a destination name, you may have to reconfigure the host to reflect the change.

```
set dest d1prn name laser
```

set dest *destination* model *modelname*

Associate a model with a destination. Jobs sent to the named ***destination*** are processed according to the options defined in the named model. See **set model** command on on page G-9 to configure this model name.

```
set dest d3prn model m3root
```

set dest *destination* logpath *logpathname*

Associate a logpath with a destination. Jobs sent to the named ***destination*** are logged according to the settings defined in the named logpath.

```
set dest d1prn logpath l5
```

set dest *destination* service [[-]socket] [[-]lpd] [[-]lpsched] [[-]rprinter] [[-]pserver] [[-]appletalk] [[-]netbios] [[-]ftpd]

Set the ***destination*** to handle only certain print services. To add a service, specify the service name. To disable a service, use "-" before the name. The available services are:

socket	Direct socket printing via TCP/IP.
lpd	LPR printing with TCP/IP including LPR clients on any platform.
lpsched	LP or System V printing with TCP/IP.
rprinter	Novell RPRINTER support.
pserver	Novell PSERVER support.
appletalk	AppleTalk printing. Disabling this service will guarantee this ***destination*** doesn't appear in the Chooser on the Apple station.
netbios	Windows 95 and Windows for Workgroups printing.
ftpd	Printing using the File Transfer Protocol (FTP) via TCP/IP.

For example, to disable appletalk service, type:

```
set dest d2prn2 service -appletalk
```

set dest from default

Set all destination settings back to factory defaults.

set dest from stored

Set all current destination settings to the stored values in Flash.

`set logpath from default`

Set all logpath settings back to factory defaults.

`set logpath from stored`

Set all current logpath settings to the stored values in Flash.

`set logpath` *`logpath`* `name` *`newname`*

Change the current name of the ***logpath*** to a new name as indicated by ***newname***. This ***newname*** must be nine characters or less or else it will be truncated; these names are case sensitive.

```
set logpath l1 name pagecount
```

`set logpath` *`logpath`* `port` *`prn`*`|email|syslog`

Determine where the log information should be sent for a print job or attached printer. The choices are:

prn parallel port **prn**.

email Particular user's email address. This address is set using the "**`set sysinfo email` *`emailname`*`@`*`IPaddress`***" command.

syslog A central TCP/IP host running the SYSLOG daemon. This host is set using the "**`set sysinfo syslog` *`IPaddress`***" command.

```
set logpath l3 port 2000
```

`set logpath` *`logpath`* `type [[-]job] [[-]user] [[-]pgcnt] [[-]cksum] [[-]printer] [[-]ioport]`

Establish the type of printer and print job logging to be done within this ***logpath***. The options are:

job Job ID, username, etc.

user User ID along with three messages per job about start and finish.

pgcnt Number of pages printed per job. Needs bi-directional communication.

cksum 16-bit checksum value to confirm integrity of data printed.

printer Special printer messages if supported (needs bi-directional communication).

ioport Printer error messages determined through the parallel port pins.

```
set logpath l2 type job user printer pgcnt
```

set model *model* banner [ps|text|auto [after]]

Determine whether a banner page should be added for print jobs passing through the ***model***'s mapped destination/queue. **ps** will produce a PostScript banner page. **text** will produce a text banner page. **auto** will determine which type is needed depending on the type of print job data passing through. By default, banner pages are added to the front of the job. However, if **after** is set, the banner page will come at the end.

Note: Banner type and printer type must match.

```
set model m8 banner text
```

set model from default

Set all model settings back to factory defaults.

set model from stored

Set all current model settings to the stored values in Flash.

set model *model* header *headerstring*

Set a header string to be sent to the printer ahead of any print jobs passing through this ***model***. ***headerstring*** can consist of up to nine elements. An example element is a hexadecimal code (e.g. 0x04) or a pre-defined variable on the print server (e.g. $PCL-RST for a printer reset). Use "**list var**" to see all available variables. For example:

```
set model m4 header $PCL-RST
```

Note: When inputting a "$" or "&" and you're using RSHD to execute this command, you must place a "\" beforehand so the local shell interpreter doesn't parse it out.

set model *model* name *newname*

Change the current name of the ***model*** to a new name as indicated by ***newname***. This ***newname*** must be nine characters or less or else it will be truncated and these names are case sensitive.

```
set model m1 name landscape
```

set model *model* stty [[-]onlcr] [[-]descramble] [xtab *tablength*|none]

Control of job processing is also done by the ***model***. The processing options are:

onlcr Carriage return insertion for Unix text jobs. Adds carriage returns to text jobs with solitary linefeeds. This will prevent stair-stepped output or output running off the right side of the page. *Use of **onlcr** may slow throughput performance on the M205/M206.*

descramble Automatic descrambling of print jobs passing through which have been scrambled using Microplex's proprietary scramble Unix utility, **npscramble**.

xtab Tab expansion from 1 to 16 spaces.

```
set model m3 stty onlcr
```

set model *model* trailer *trailerstring*

Set a trailer string to be sent to the printer at the end of any print jobs passing through this ***model***. ***trailerstring*** can consist of up to nine elements. An example element is a hexadecimal code (e.g. 0x04) or a pre-defined variable on the print server (e.g. $FF for a formfeed). Use "**list var**" to see all available variables.

```
set model m7 trailer $FF
```

set model *model* type a2ps [*pageorientation* [*pagesize* [*rows columns*]]] [cont]

Converts text or ASCII data which passes through the model to PostScript data before sending it to the attached PostScript printer. The a2ps default settings are portrait, letter, 60 rows, and 80 columns. These can be altered using these options:

pageorientation Orientation of page (i.e. **portrait** or **landscape**).

pagesize Size of page (i.e. **letter**, **legal**, **exec**, or **a4**).

rows Number of rows in page.

columns Number of columns per line.

cont Continuously senses print job for data format. For example, if a PostScript banner page comes before an ASCII job, the M205/M206 senses both parts of the job separately. This way, the banner page gets left alone but the ASCII data still gets converted to PostScript. *Use of this option will decrease output performance*.

```
set model type a2ps
```

set model *model* type pcl-ps [*PCLswitchstring PostScriptswitchstring*]

Switch printer emulation modes (e.g. PCL or PostScript) depending on the type of data passing through the M205/M206. To do this, the model pre-pends a header string telling the printer which mode to enter for the job. It then appends a string to switch the printer back at the end of the job. The default switch strings are compatible with HP III printers and higher. These can be changed by defining a new ***PCLswitchstring*** and a new ***PostScriptswitchstring***.

```
set model m5 type pcl-ps
```

Another example shows the model m3 switching printer modes between PCL and PostScript for an HPLJIIIse-compatible printer. The two variables defined represent a PCL switch string and a PostScript one.

```
set model m3 type pcl-ps $HP3-SWPCL $HP#-SWPS
```

set model *model* type raw

Set the model **type** to **raw** so that it does not process the data passing through it in any way (no sensing or conversion). In this mode there is no ASCII or PostScript processing and no switching strings appended to jobs. For example

```
set model m2 type raw
```

set prn [-]autofd

Assert or don't assert the $\overline{\text{AUTOFD}}$ line for carriage return insertion. This only affects printers that support this function such as impact printers.

```
set prn -autofd
```

set prn from default

Set all parallel port settings back to factory defaults.

set prn from stored

Set all current parallel port settings to the stored values in Flash.

set prn flush

Flush the data in the parallel port's input and output buffers.

```
set prn flush
```

set prn mode slow|cen|pc|fast|bb

Set the parallel port mode. The choices are:

slow	Slow the data transfer rate to be compatible with the most printer models.
cen	Centronics mode. Use with older impact printers.
pc	Default mode. Will work with most printer models.
fast	Increase the data transfer rate. Used with some newer, faster printers.
bb	Bit bucket mode. Simulate an attached printer even if one isn't attached.

```
set prn mode slow
```

Note: There is no longer a setting to adjust the flow control method of the parallel port from busy mode to ACK

mode. This is no longer necessary.

set prn [-]opost

Allow or disallow output processing on the parallel port such as carriage return insertion (**onlcr**), tabstops (**xtab**) or descrambling. With "-" do not allow any of this processing.

```
set prn -opost
```

set prn [-]onlcr

Enable or disable carriage return insertion on the parallel port. This may be needed for Unix text jobs coming through with solitary linefeeds. This feature is almost always set at the model level rather than the I/O port level.

```
set prn -onlcr
```

set prn timeout *minutes*|none

Terminate the print job sent to the parallel port if it is not printed after the timeout period in ***minutes*** expires. The ***minutes*** value ranges from 0 to 255 with 0 indicating no timing out to take place. This is the default setting and should be fine for most print setups.

```
set prn timeout none
```

Note: Printer errors will cause the M205/M206 to postpone printing until the printer is fixed regardless of whether the timeout feature is set or not.

set prn unlock

Release the access lock on the parallel port.

```
set prn unlock
```

Note: Using **unlock** option when the port is active can cause output from two jobs to intermix.

set prn xtab *tablength*|none

Set the tabstop width as indicated by ***tablength***. The range is 1 to 16 spaces.

```
set prn xtab none
```

set rprinter add *pservername printernumber destname*

Initiate or remove a connection to a Novell PSERVER so that the M205/M206 can act as a remote printer. A non-M205/M206 PSERVER must be pre-configured to recognize a remote printer.

Pservername Name of the PSERVER to connect to

printernumber Number of the printer as defined in the PSERVER display

destname Destination name on the M205/M206

For example, to add a remote printer connection, type:

```
set rprinter add sales 0 d2prn
```

set rprinter del *pservername printernumber*

Initiate or remove a connection to a Novell PSERVER so that the M205/M206 can act as a remote printer. A non-M205/M206 PSERVER must be pre-configured to recognize a remote printer.

Pservername Name of the PSERVER to connect to

printernumber Number of the printer as defined in the PSERVER display

For example, to disable a remote printer connection, type:

```
set rprinter del sales 1
```

set sysinfo contact *contactname*

Set a person or department to contact in case of print server trouble.

```
set sysinfo contact Paul_Harris
```

set sysinfo email *emailname@IPaddress*

Define the user's email address to receive printer and job logging information from a particular logpath on the M205/M206. ***email-name*** is the host or IP name of the user and ***IPaddress*** is the IP address where the mail is stored on your network.

```
set sysinfo email joe@192.75.11.51121
```

set sysinfo location *description*

Set the physical location of the M205/M206. This is for identification purposes and is not used in the operation of the print server in any way.

```
set sysinfo location salesdept
```

set sysinfo loginfo [-]sys | [-]tcp | [-]ipx | [-]spx

Set the M205/M206 debugging information type. Usually this information includes unexpected errors or exceptions from the print server divided into these groups:

sys General system messages.

tcp TCP stack messages.

ipx IPX stack messages.

spx SPX stack messages.

Note: This is not printer or job logging information but comes from the M205/M206 only.

```
set sysinfo loginfo -sys ipx
```

set sysinfo logport null|syslog

Define where the debugging information should be sent to. This can be sent to an output device off of the M205/M206's I/O port or to a central TCP/IP host running a SYSLOG daemon. To set this host, use the command "**set sysinfo syslog *hostIPaddress***".

```
set sysinfo syslog 192.75.11.2
```

set sysinfo name *newname*

Set a descriptive name defined by ***newname*** for the M205/M206 for identification purposes. This is not used in the operation of the print server in any way.

```
set sysinfo name salesprinter
```

set sysinfo syslog *hostIPaddress*

Set the IP address of the host running the SYSLOG daemon. M205/M206 debugging or print job and printer logging information can be sent there.

```
set sysinfo syslog 192.75.11.30
```

set sysinfo dns *DNSserverIPaddress*

Set your DNS server's IP address so the M205/M206 can resolve host names when used with its built-in Telnet and Ping clients.

```
set sysinfo dns 192.75.11.2
```

set sysinfo descramblekey *hexvalue*

Set the key value used for descrambling print jobs that have passed through Microplex's **npscramble** utility on a TCP/IP host. This key is a four-digit hexadecimal value obtained from the host software, npscramble. Within the npscramble source code, there is a variable called SR_KEY which contains the default key value. This can be changed to any four-digit value you'd like.

```
set sysinfo descramblekey 1234
```

set sysinfo module [[-]novell] [[-]appletalk] [[-]net-bios]

Enable and disable certain network protocol stacks within the M205/M206. Sometimes it helps to disable any protocols you are not using on your network.

```
set sysinfo module -novell
```

`set time` *`hours`* `[`*`minutes`* `[`*`seconds`*`]]`

Set the current time noting the ***hours*** based on the 24-hour system and the ***minutes*** and ***seconds*** ranging from 0 to 59. If the M205/M206 is reset, this value will be lost so you will need to reset the time again.

```
set time 10 30
```

`set user add|del` *`username`*

Add or remove a user on the M205/M206 defined by ***username***. Be careful not to delete the **root** user, however, or you will be unable to configure any further settings on the print server. You will have to go back to factory defaults to fix this situation if it occurs.

```
set user add eng
```

`set user passwd` *`username password`*

Assign a ***password*** to a defined user on the M205/M206. This ***password*** must be less than eleven characters. If the new password is not entered, the user's old password will be cleared.

```
set user passwd eng mplex1
```

Note: If you forget the root password, you can use a TCP/IP host and RSHD and superuser to set the users back to factory defaults or you can re-set the jumpers. See "Back to Factory Defaults" on page 55 of the *M205/M206 Quick Installation and Configuration Guide***.**

`set user type` *`username`* `root|guest`

Assign root or guest privileges to a particular user defined by ***username***. Guest permissions allow viewing of settings only whereas root permissions allow complete control of the M205/M206.

```
set user type eng root
```

`set user from default`

Set all user settings back to factory defaults.

`set user from stored`

Set all current user settings to the stored values in Flash.

`set var` *`variablename variablestring`*

Define a new variable to be used in header, trailer, or switch strings on the M205/M206 and call it ***variablename***. ***variablestring*** can be a space-separated list of words, hexadecimal numbers (e.g. 0x04), or references to other pre-defined variables. It's easiest to make up the ***variablestring*** with hexadecimal values as shown in the example, however. Most printer codes in hexadecimal format can be retrieved from the printer's own manual.

Note: One variable counts as one element within header and trailer strings.

Note: Defined variables are referenced in strings by placing a "**$**" before the variable name (e.g. "**set model m1 trailer $FF**"). When inputting a "$" or a "&" and you're using RSHD to execute this command, you must place a "\" beforehand so the local shell interpreter doesn't parse it out.

```
set var LANDSCAPE 0x1b 0x26 0x6c 0x31

set var FINISH $FF $PCL-RST
```

set var from default

Set all variable settings back to factory defaults.

set var from stored

Set all current variable settings to the stored values in Flash.

Store Commands

These commands change the settings stored in Flash (permanent memory) and do *not* affect the current or working settings in memory. A power cycle is needed before the stored settings become current.

store ifc from default

Set all network settings back to factory defaults.

store ifc from current

Store all current network settings to Flash so they are retained after a power cycle. This ensures all current settings match what's stored in Flash.

store ifc *ifnum* utp [-]li [-]rx

Modify the physical UTP interface properties where **li** enables link integrity and **rx** enables the increased receive threshold. A "-" disables the feature. For example,

```
store ifc 1 utp li
```

store pserver apple zone *newzonename*

Store a particular AppleTalk zone on the M205/M206 called ***newzonename***. By default, the print server will come up in your networks default zone.

```
store pserver apple zone sales
```

To clear the AppleTalk zone, type:

```
store pserver apple zone
```

store pserver applepap *papname* dest *destination*

Alter the AppleTalk printer specified by ***papname*** to print to the ***destination*** specified. This mapping does not appear in the Chooser on the Apple station. It can only be seen under "**list pserver**" on the M205/M206.

```
store pserver applepap prn dest d2prn
```

store pserver applepap *papname* driver *newdrivername*

Change the AppleTalk printer specified by ***papname*** to use the printer driver specified by ***newdrivername***. By default, the M205/M206 supports the LaserWriter driver. Drivers are selected within the Chooser on the Apple station.

```
store pserver applepap prn driver Deskjet
```

store pserver applepap *papname* name *newpapname*

Change the current AppleTalk printer which appears in Chooser (specified by ***papname***) to something new as defined by ***newpapname.*** For example, to change the AppleTalk printer named prn to laser, type:

```
store pserver applepap prn name laser
```

store pserver from default

Set all general print server settings back to factory defaults.

store pserver from current

Store all current general print server settings to Flash so they are retained after a power cycle. This ensures all current settings match what's stored in Flash.

store pserver name *newservername*

Store a new name for the M205/M206 indicated by ***newservername***. This name will affect Novell, AppleTalk and NetBIOS setups.

store pserver novell frametype [ethernet2 | 802.3 | 802.2 | 802.2snap | autosense]

Stores a particular frame type for the M205/M206 to adhere to in a Novell environment.

Note: The M205/M206 provides simultaneous support for all Novell frame types.

store pserver novell fserver add|del *fservername*

Adds or removes a specified Novell file server as a preferred file server. If there are more than 16 file servers in total, the desired file server should be set as preferred. If this feature is not enabled, the M205/M206 will only acknowledge the firs 16 file servers it senses. For example, to add the file server eng.mplex:

```
store pserver novell fserver add eng.mplx
```

To remove the file server eng.mplex:

```
store pserver novell fserver del eng.mplex
```

store pserver novell opts [-]spxkeepalive

Allows users to enable and disable the keepalive packets sent by the M205/M206 to the host in order to maintain a SPX connection. For example, to disable the keepalive packets type:

store pserver novell opts -spxkeepalive

store pserver novell passwd *password*

Store the ***password*** for the M205/M206 to use when logging in to a Novell file server. This ***password*** would have to match one set on the file server.

```
store pserver novell passwd mplex
```

store pserver novell polltime *time*

Store the ***time*** (in seconds) between polling by the M205/M206 to see if print jobs are in the queue on the file server. This is applicable to a PSERVER setup only. For example, to poll every 5 seconds, type:

```
store pserver novell polltime 5
```

Note: The M205/M206's NET LED will flash according to the poll time.

store pserver opts [[-]jobsecurity] [[-] iobuffer][jobtimeout *seconds*]

If **jobsecurity** is disabled, any user can cancel queued jobs on the M205/M206, including guest users. Though not something normally used for parallel printing, the **iobuffer** command enables and disables buffering on the parallel port (only special circumstances would require the buffering to be turned off).

If **jobtimeout** is set to some value other than 0, the M205/M206 will only wait this amount of ***seconds*** when getting printer feedback. This is only used if you have a logpath port and type set on a particular destination. Most printers should responds quite quickly so you won't need to adjust this value, but if you have time-critical printing happening (e.g. one job every 7 seconds) with certain logging requirements, this may come into play.

```
store pserver opts jobsecurity -iobuffer jobtimeout
5
```

store pserver smb workgrp *newworkgroupname*

Define a different Windows workgroup as defined by ***newworkgroupname*** for the M205/M206 to be visible within. Windows uses these names to organize groups of computers into workgroups so that when browsing certain function, users see only computers belonging to a particular workgroup rather than all the computers on the network. By default, the print server only comes up within the group called "WORKGROUP".

```
store pserver smb workgrp eng
```

store tcpip *ifnum* addr *IPaddress*

Store the IP address for the NIT module specified by ifnum (**ifnum** will always be 1 for the M205/M206).

```
store tcpip 1 addr 192.75.11.9
```

store tcpip *ifnum* frametype [[-]ethernet2] [[-]802.2snap]

Control which frame type(s) is supported with the TCP/IP protocol. By default, both **Ethernet II** and **802.2snap** are enabled but normal TCP/IP communications rely on Ethernet II. This setting has *no* affect on other supported network protocols (e.g. Novell).

```
store tcpip 1 frametype ethernet2 802.2snap
```

store tcpip from default

Set all TCP/IP network settings back to factory defaults.

store tcpip from current

Store all current TCP/IP network settings to Flash so they are retained after a power cycle. This ensures all current settings match what's stored in Flash.

store tcpip *ifnum* mask *netmask*

Store the subnet mask for the M205/M206.

```
store tcpip 1 mask 255.255.255.0
```

store tcpip *ifnum* opts [[-]rarp] [[-]bootp]

Enable or disable the automatic RARP or BOOTP requests for IP addresses upon bootup. If you are storing the M205/M206's TCP/IP network settings within the device, you won't need to rely on RARP or BOOTP for new settings.

```
store tcpip 1 opts -rarp -bootp
```

store tcpip route add|del default *routerIPaddress ifnum*

Store a default router/gateway defined by ***routerIPaddress*** so the M205/M206 knows where to direct packets destined for another subnet. It is easier to store one default entry rather than an entry per remote host or network as in the next command.

```
store tcpip route add default 192.75.11.1 1
```

store tcpip route add [host|net] *networkIPaddress*[/mask] *routerIPaddress ifnum [metric]*

Add a static route to a particular TCP/IP host or subnet specified by ***networkIPaddress*** so the M205/M206 knows how to communicate with it. Normally one entry for a default router/gateway is all that is needed for communications between different subnets. Please see the previous command for details.

```
store tcpip route add 204.195.175  192.75.12.0 1
```

store tcpip route del [host|net] *networkIPaddress*

Remove a static route to a particular TCP/IP host or subnet specified by ***networkIPaddress*** so the M205/M206 won't communicate with it.

```
store tcpip route del net 192.75.12.9
```

store tcpip tcp access [root] add|del *IPaddress*

Add or remove an entry from the M205/M206's TCP access list defined by ***IPaddress***. If the list has an entry, only this host can print to and remotely interact with the print server.

```
store tcpip tcp access add 192.75.11.25
```

store tcpip tcp opts [-]keepalive [-]disbufmgmt

Control whether the M205/M206 maintains a connection with a host when data cannot be accepted into its buffer. Normally the **keepalive** feature is enabled so when the printer cannot accept data, the print job connection is maintained and continued with once the situation clears. If **disbufmgmt** is disabled (i.e. "-"), the M205/M206 will not buffer any data when there's a blocked situation with the printer. Normally it's best to have both **keepalive** and **disbufmgmt** enabled.

```
store tcpip tcp opts keepalive
```

store tcpip tcp rxwin *packets*

Determine the receive window size for the M205/M206. Usually the ***packets*** value ranges from 2-8 with the lower number allowing for more simultaneous TCP connections with the print server.

```
store tcpip tcp rxwin
```

Miscellaneous Commands

These commands don't fall under any specific section of the command shell but they are used quite frequently.

cancel *jobID*

Remove a job from an I/O port's queue. Use "**lpstat**" to find a particular job's ID first.

```
cancel d1prn1-10
```

chr *string*

Used with redirection, the chr command sends output control codes to the printer. Arguments must be separated by spaces. Arguments can be a combination of words, any printable character or the common set of $BS, $STAB, $ESC, $DEL, $EOF, $NULL, $FF, $LF, or Oxhh (hexadecimal code for any character). You will echo ***string*** or redirect ***string*** to the I/O port using:

chr *string* > *ioport*

close tcp *TCPindexnumber*

Force a TCP/IP connection between a TCP/IP host and the M205/M206 to close. The ***TCPindexnumber*** can be retrieved from "**debug tcp**" output.

```
close tcp 3
```

disable *ioport*|*destination*

Disable the ***I/O port*** so queued jobs aren't printed or disable a ***destination*** so jobs cannot be queued to it. The I/O port is always **prn**.

```
disable prn
```

enable *ioport*|*destination*

Enable an ***I/O port*** so queued jobs are printed or enable a ***destination*** so jobs can be queued to it. The I/O port is always **prn**.

```
enable prn
```

keycode

Determine the hexadecimal value for a key to be used as the escape character with the M205/M206's built-in "**telnet**" command.

load [default]

Load the settings stored in Flash and use them as the current or working settings. If **default** is specified as well, factory settings will be loaded. Use this after power failure to restore settings saved in Flash.

lp *options* -d *destname*

Print to the M205/M206 using standard TCP/IP rsh/rcmd/remsh. destname is the name of the M205/M206 destination. This command in default mode will show any parallel port printer errors to the user. The options are:

-v	Show incremental byte counts as the job is printing and show the job's position i the queue as it moves to the top.
-V	Show the number of bytes printed.
-onlcr	Insert a CR character before LF characters
-t*tabwidth*	Number of spaces of the tab in the range of 1 to 16
-off	Generate a FF character at the end of the job.
-oeof	Generate and EOF character at the end of the job.
-u*username*	The name of the user that will be printed on the banner page.
-f*filename*	The name of the file that will be printed on the banner page.

For example, to print the file **tests.txt** followed by a formfeed to the M205/M206 destination **d1prn** on the print server named **spike**, you would type:

```
rsh spike lp -d d1prn -off < test.txt
```

lpstat

Display active and queued jobs and I/O port status.

```
lpstat
```

ping [-s] *hostIPaddress* [*datasize* [*packetnumber*]]

"**ping**" another TCP/IP host specified by ***hostIPaddress*** on the M205/M206 network. ***datasize*** is the datagram packet size which defaults to 64 bytes if no size is included in the syntax and ***packetnumber*** is the number of requests to be sent.

Note: To use a host or IP name instead of the address, you must have set the DNS server on the M205/M206. Use the command "**`set sysinfo dns...`**" to do this.

```
ping 192.75.11.30
```

`reset`

Perform a warm boot or hardware reset simulating a power-on reset. Restores current settings to those stored in Flash since the Flash settings will be read and loaded into memory upon bootup.

`save [default]`

Save the current settings to Flash so they are remembered after power cycles. Sysinfo, destination, model, logpath, variable, user, and I/O port settings will be saved. If **`default`** is specified as well, factory settings will be saved to Flash overwriting any new settings you have configured. Resetting the unit is not required.

`start fox|tts|loopb prn`

Begin a debugging test on one of the I/O ports on the M205/M206. These tests are for confirming that the parallel port on the M205/M206 is communicating properly with connected devices. Three types of tests can be done:

fox A continuous stream of text sent to the attached printer. Good test for troubleshooting hardware as long as the attached printer supports text output.

tts A continuous stream of Gandalf 400C TTS-compatible text sent to the attached printer.

loopb Loopback test. Any input characters from the device attached to the I/O port is echoed back.

```
start fox prn
```

`stop all|prn`

Stop an output test on the I/O port.

`telnet` ***`hostIPaddress`*** **`[`*****`escapecharacter`***`]`**

Start a Telnet session with another TCP/IP host specified by ***hostIPaddress*** on the M205/M206's network. If ***escapecharacter*** is used, it resets the key sequence used to exit the Telnet session. It will return you to the `telnet>` prompt where you can execute "**`quit`**" or "**`?`**" to print the help information. Use the "**`keycode`**" command to find out exact escape characters if needed. The default character is CTRL-].

Note: To use a host or IP name instead of the address, you must have set the DNS server on the M205/M206. Use the command "**`set sysinfo dns...`**" to do this.

```
telnet 192.75.11.35
```