

Real important Info on InJoy v2.3

=====  
What should I do with my new InJoy pack?  
=====

- \* Read this entire file before proceeding.
- \* Please backup your current InJoy setup to a temporary directory.
- \* Unzip InJoy directly to the directory in which you want it to run. Use UNZIP.EXE (or PKUNZIP.EXE with the -d option to create the archived sub-directories).

NOTE: It is safe to unzip the new distribution archive inside your current InJoy directory **\*\*IF\*\*** you have it backed up.

- \* After unzip, please run INSTALL.CMD which will create a folder with objects for all the important InJoy files.

=====  
Attention  
=====

- \* For SOHO/Pro users: All \*.cnf files in the InJoy base directory will be overwritten with new files, whereas files in the /firewall and /filters directories are not touched.

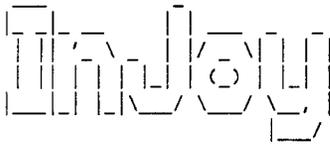
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Doc 1

1.1 - 1.1



README.TXT  
inJoy Release 2.3  
October 1, 1999



The Best way To The Internet

F/X Communications  
DK-4300 Holbaek  
Denmark  
E-mail: [injoy@fx.dk](mailto:injoy@fx.dk)  
<http://www.fx.dk>

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For best viewing use a viewer allowing at least 80 columns and select a non-proportional font. The combination of the OS/2 System Editor (E.EXE) and the System Monospaced font is ideal if the word wrap option (under the Options menu) is off.

Doc 2

2.1-2.7

InJoy's documents are constantly changing to meet the needs of our users. The latest versions are linked from:

<http://www.fx.dk/injoy>

=====  
C O N T E N T S  
=====

=====  
What's Where  
=====

- o Description.....Short & Sweet
- o Legal Info.....Your Attention Please
- o Hard & Software Requirements.....The Minimums
- o Rapid Start Install.....For Those In A Hurry
- o Killjoy.....Just In Case
- o InJoy Feature List.....They Made InJoy Famous
- o Acknowledgements.....Giving Credit Where Due
- o Contacts.....Additional Help Is Available

=====  
D E S C R I P T I O N  
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=====  
Short & Sweet  
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InJoy is the best high-performance PPP/SLIP dialer available for the OS/2 operating system, and through InJoy's Network Address Translation, you can connect your LAN to the Internet with a minimum of fuss and expense.

InJoy is neither an extension to, nor a user interface for the PPP.EXE included in the OS/2 Internet Access Kit. Using IBM's code results in slower performance and a much higher hit on resource usage. Instead InJoy is a completely new dialer that uses the IBM TCP/IP stack for transport. This gives you the best possible performance with your existing Internet and TCP/IP LAN applications.

For less cost than a router, InJoy puts your LAN on the Net using NAT. And, with automatic connections provided by Dial on Demand, InJoy is transparent to LAN users.

The Firewall and Packet Filter plugins found at the Professional and SOHO level effectively turn InJoy into an extremely powerful and secure gateway product, capable of handling an almost infinite number of network users.

Support of the IPSec technology provides comprehensive VPN security features and the highest level of standards-based data protection mechanisms. It provides reliable and interoperable data exchange, ensuring confidentiality, integrity and authenticity of transmitted information.

Network Address Translation, Dial on Demand and Host Triggered Actions are available only in the registered "Extended Client", "SOHO Client" and "Professional Enterprise Server/Client" versions. Those functions are not available in the "Basic Client" version, whether registered or not. The "Extended Client" version will allow NAT for no more than four LAN workstations.

=====
L E G A L I N F O
=====

=====Your Attention Please=====

This software requires registration after a 30 day trial period. For registration refer to the included file: REGISTER.TXT.

By installing and using this program you accept it as is and agree to the limits of liability and other provisions outlined in LICENSE.TXT. You should read that file before proceeding with installation or using the program.

Copyrights and trademarks remain the property of their owners.

=====
H A R D & S O F T W A R E R E Q U I R E M E N T S
=====

=====The Minimums=====

- o IBM OS/2 2.1 or OS/2 for Windows 1.0
o 386SX
o 8 MB total memory
o Up to 10 MB free disk space
o TCP/IP base kit or OS/2 Internet Access Kit

=====
R A P I D S T A R T I N S T A L L
=====

=====For Those In A Hurry=====

- o Unzip the archive into a directory of your choice.
- When updating to a new version, it is a good idea to backup first, and check host configuration after the new install.
- Use unzip (or pkunzip with the -d option), assuring that directories are created as needed.
- Unzipping over the old version allows continued use of existing data files and configuration.
o Launch install.cmd to create an InJoy folder on your desktop.
o Launch InJoy and configure (NOTE: This is a VERY short tutorial. Many find that it works for them, first time. More detailed information can be found in the file USERGUID.TXT.)
- Start the configuration process by clicking on [New] under [Host]
- As a guide, use the "hint" (appearing at the bottom of the screen) for each user configurable option.
- Type "Test" in the Configuration name block and, when you have filled in your "Test" Host, DO NOT press 'Save as Default' until you have a proven configuration.

- Fill in your user ID and password in the appropriate blocks.
- Continue until all blocks specific to your needs are configured.

Like nameserver, phone number, modem init strings, COM port selection....those kinds of "must have" blocks.

- NOTE: If your ISP offers automatic negotiation through PAP or CHAP you will probably NOT need a log on script. Therefore do NOT setup InJoy for automatic script learning unless you are certain that a script is required. Many find a script unnecessary.

- o Try a hookup by clicking on [Dial].

```
=====
K I L L J O Y
=====Just In Case=====
```

KILLJOY.EXE is a small utility program that will kill InJoy from the command line and still allow the connection log to update correctly.

- o Open an OS/2 command window
- o Change to InJoy's directory
- o Type "killjoy" (without the quotes) and press enter. InJoy will die instantly, and drop any modem connections.
- o Or, type "killjoy -" (again, without the quotes) and press enter. InJoy will die as soon as the modem connection is dropped

InJoy's implementation of user configurable disconnect actions makes the Killjoy program obsolete. However, it is retained in the distribution archive for backward compatibility and for those whose existing script routines require it.

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=====
F E A T U R E L I S T
=====They Made InJoy Famous=====
```

- o TCP/IP version 4.1 ready
- o Support of IPSec, the predominant VPN standard.
- o Filter plugin to selectively discard packets.
- o Extensive Dialer API
- o Firewall plugin.
- o Full 32 bit PPP or compressed SLIP connections (compliant with the latest RFC's)
- o Full terminal mode capability
- o Dial on Demand
- o NAT (share PPP connection simultaneously with work stations on your LAN, including Mac's, Win95, 3.1 and all other TCP/IP clients)

- o Intelligent modem sharing. If the modem is busy (e.g. in use by a fax or other comm program), InJoy will attempt to dial every five seconds until the port is free, at which time it will complete the the dial.
- o Host Triggered Actions
- o Port speeds configurable to 345,600 (hardware and driver permitting)
- o Disconnect actions allowing program exit on any of these events:
  - Any disconnect
  - Any unprovoked disconnect
  - Idle TIMEOUT
  - TIMER expire
  - Dialing failure
- o CHAP and PAP authentication fully supported (including MS-CHAP for NT server support)
- o Included SetJoy utility changes Idle Timeout and Timer while connected
- o Low CPU resource usage
- o Easy configuration
- o Connection info stored in CONNECT.TXT, and viewable while connected
- o Easy auto learning of log on scripts
- o Automatic IP address grabbing under SLIP. (No need for REXX!)
- o Script pausing to allow changing password insertion. Perfect for setup's with constantly changing passwords (such as SecureID).
- o Auto Internet connect at program start
- o Auto line drop if modem negotiates a connection at a speed lower than the user configurable limit
- o Auto re-connect if carrier drops unintentionally
- o Auto start/stop user-specified programs on connect/disconnect and almost ANY event. This is terrific for mail, news and FTP clients.
- o Auto re-dial on connection failure.
- o Phone number list with up to 10 phone numbers, with user-selectable dialing sequence.
- o Backup as well as primary name server (DNS)
- o Adjustable program priority
- o PPP options allowing connection fine tuning
- o Online time monitoring (since last reset)
- o Tracing capabilities (including line monitoring)
- o Monitor character per second (CPS) rates in real time (both graphic and numeric)
- o Auto connection logging (date, start, stop, duration and CPS stats)
- o Monitor connection speed and duration

- o Shared modem within your IBM PEER workgroup
- o Timeout function (drop line after x seconds of line inactivity)
- o Timer function (drop line after y seconds even if line is active)
- o Timeout warnings (prior to line drop)
- o User configurable performance tuning
- o Graceful logoff (if host does not allow carrier drop)
- o Possible to copy and share your host's definitions
- o Optional sounds at connect/disconnect/timer warning/timeout warning
- o NULL modem support
- o Allows parity changing within scripts (great for Co-buServe)
- o PM Patrol (tm) aware
- o Hiding password and user ID from scripts using the [PASSWORD] and [USERID] metavariables
- o Configurable user confirmations
- o Stable connections, even on RAM starved machines
- o Releases COM port when not in use
- o Hostid support
- o Dynamic DNS support

=====

A C K N O W L E D G E M E N T S

=====Giving Credit Where Due=====

F/X would like to thank all the people who helped during the development phase and a special thanks to The WordSmith (WordSmith@IBM.Net) for his help with the docs.

=====

C O N T A C T S

=====Additional Help is Available=====

The below resources are pointers to where you might find more help in using InJoy.

Support: Our FREE mail list has more than 400 people connected and they will gladly take a stab at almost any problem. See below for help on subscribing to the list.

If the mailing list does not give you the help you need, e-mail the InJoy Support Center at:

oosupport@fx-usa.com

Web: <http://www.fx.dk>  
<http://www.fx.dk/injoy>

We post the most recent news about InJoy at the F/X  
Communications site.

E-Mail F/X: [injoy@fx.dk](mailto:injoy@fx.dk)

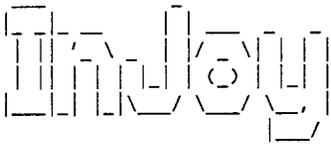
Mailing lists: Subscribe at <http://www.fx.dk/contadd.html>

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REGISTER.TXT  
InJoy Release 2.3  
October 1, 1999



The Best Way To The Internet

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DK-4300 Holbaek  
Denmark  
E-mail: [injoy@fx.dk](mailto:injoy@fx.dk)  
<http://www.fx.dk>

===== REGISTER INJOY =====

=====It Is So Easy=====

1. First, choose from the available levels of registration and

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3.1-3.7



functionality of InJoy. Refer to this table for a quick overview of what features are available in the different versions. (Additional information on the various versions follows step three.)

Version	NAT	DOD	PLUGINS			SERVER	SUP-	\$\$\$
	USERS		FILT	FW	IPSec	PORTS	PORT	
BASIC*	NO	NO	NO	NO	NO	NO	NO	\$30
EXTENDED	4	YES	NO	NO	NO	NO	YES*	\$45
SOHO**	12	YES	YES	YES	Yes 5	NO	YES*	\$85
PROFESSIONAL	25	YES	YES	YES	Yes 5	YES 2	YES	\$200
	50	YES	YES	YES	Yes 5	YES 2	YES	\$400
	100	YES	YES	YES	Yes 5	YES 2	YES	\$700
	250	YES	YES	YES	Yes 5	YES 2	YES	\$1000
	500	YES	YES	YES	Yes 5	YES 2	YES	\$2000
	1000	YES	YES	YES	Yes 5	YES 2	YES	\$3000
INJOY API	Contact sales@fx.dk for details...							>8000

\* Note: Support is on best effort basis  
 \*\* Note: "Extended" and "Professional" registrations entitles you to free upgrades for life. Basic and SOHO registrations entitle you to free upgrades up to v3.0 (not incl. - expected around year 2001).

2. Second, choose the method of payment:

- o Payment through BMT Micro is available by several means:
  - E-Mail the order form included in this file.
  - For ENCRYPTED credit card purchases, double-click on the "BMT Registration Applet" object in your "InJoy" desktop folder.
  - Customers may purchase from BMT through agents in their home country. See details in ORDER.BMT.
  - Compuserve members may register online by following the instructions in ORDER.COM.
  - Customers in Germany may use DM funds transfer to a BMT account inside Germany. See details in the file ORDER.DE.

=====  
 InJoy Basic Client  
 =====Inexpensive Entry=====

All the basic InJoy functions for the entry level user. If you are on a budget and don't need advanced functions like NAT, this is the dialer, at the registration level, you have been looking for . . . get faster connections and downloads for only \$30 (US).

All the features that made InJoy famous:

- o Full terminal mode capability
- o Full 32 bit PPP connections (according to the latest RFC's)
- o Full 32 bit SLIP support
- o CHAP and PAP authentication fully supported (including MS-CHAP for NT servers)
- o Low CPU resource usage
- o Easy configuration
- o Dynamic DNS support
- o Port speeds configurable to 345600 (hardware/driver permitting)
- o Easy auto learning of log on scripts
- o Script pausing to allow changing password insertion
- o Auto Internet connect at program start
- o Auto line drop if modem negotiates a low speed connection
- o Auto re-connect if carrier drops unintentionally
- o Auto start/stop programs (like mail, news, FTP, CMD and REXX)
- o Auto start/stop at InJoy start up, at dial, just prior to disconnect, at disconnect, or anytime with an F key press
- o Auto re-dial upon failure to establish a connection
- o Backup phone number list (up to 10 numbers)
- o Backup name server
- o Adjustable program priority
- o PPP options allowing connection fine tuning
- o Online time monitoring (since last reset)
- o Tracing capabilities (including line monitoring)
- o Compatible with IPTRACE and IPFORMAT.EXE (included with Warp)
- o Monitor CPS rates real time (both graphed and digits)
- o Auto connection logging (date, start, stop, duration and CPS stats)
- o Monitor connection speed and connection time
- o Share modem within your IBM PEER workgroup
- o Timeout function (drop line after x seconds of line inactivity)
- o Timer function (drop line after y seconds even if line is active)
- o Timeout warnings (prior to line drop)
- o Change Timer and/or Timeout values while connected via SetJoy
- o Force a disconnect with SetJoy
- o Command line options
- o Improving performance tuning options
- o Graceful logoff (if host does not allow carrier drop)
- o Possible to copy your host's definitions
- o Tunes at connect/disconnect/timer warning/timeout warning
- o NULL modem support
- o Allows parity changing within scripts (great for CompuServe)
- o PM Patrol (tm) aware
- o Hiding password and user ID from scripts using the [\$PASSWORD] and [\$USERID] metavariables
- o Configurable user confirmations

Stable connections, even on RAM starved machines

Free upgrades until the release of v3.0 (not expected before late-1999).

Note: Some enhancements (for example, NAT, Dial on Demand, and Host Triggered Actions) are not available by users registered at this level. However, registered InJoy Basic Client users will have full access to all new speed and stability improvements and new functions added in periodic basic version releases.

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=====
I n J o y   E x t e n d e d   C l i e n t
=====Meets Needs of Most=====

```

this is the registration level which will best fit most InJoy users. You get A L L the features of the Basic Client, PLUS:

- o FREE CLIENT UPGRADES FOR LIFE!!!

- o Support on a best effort basis!
- o Dial on Demand
- o NAT (share PPP connection simultaneously with work stations on your LAN, including MAC's, Win95, 3.1 and all other TCP/IP clients. This version will function as a server for up to 4 PC's. If you need more, jump to the next registration level.)
- o Host Triggered Actions.
- o New participants in beta/development programs are selected from those registered at this level, or higher.

```

=====
I n J o y   S O H O   C l i e n t
=====For The Small Office/Home Office=====

```

This is the registration level which will best fit the small or home office. You get ALL the features of the Extended Client, PLUS:

=====

- o Filtering Plugin is included at this level.
- o Firewall Plugin is also included.
- o IPSec Plugin included, with support 5 internal users. Support for more internal users is available at extra cost.
- o NAT (This version will function as a gateway for up to 12 PC's. If you need more, register at the Professional Enterprise level.)
- o Support on a best effort basis!
- o Free upgrades until the release of v3.0.

```

=====
InJoy Professional Enterprise Server/Client
=====Top Shelf=====

```

This level of registration is designed for the power user, Internet site operator or enterprise network administrator needing a fast, stable AND robust InJoy client/server. This package provides all the above noted features plus:

- o The number NAT clients you need to support.
- o IPSec Plugin included, with support 5 internal users. Support for more internal users is available at extra cost.
- o 2 Port PPP server (currently in beta)
- o 2 Port SLIP server (currently in beta)
- o FREE Client and S E R V E R UPGRADES FOR LIFE!!!  
=====
- o Earliest participants in beta/development programs are invited from from those registered at this level.

- o All possible features included in this version.
- o Individualized variations available via extra cost, custom coding.
- o My personal involvement (via e-mail) in helping you set up InJoy for your particular needs.

If you have problems or registration questions, e-mail me: [injoy@fx.dk](mailto:injoy@fx.dk)

Please Note: BMT Micro charges \$3.00 to find and retransmit lost keys.

=====

- Cut here -                      BMT Micro Order Form                      - Cut here -

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The Best Way to the Internet

Mail Orders To: BMT Micro  
 PO Box 15016  
 Wilmington, NC 28408  
 U.S.A.

Voice Orders: 8:00am - 7:00pm EST (-5 GMT)  
 (800) 414-4268 (orders only)  
 (910) 791-7052

Fax Orders: (910) 350-2937 24 hours / 7 Days  
 (800) 672-1672 24 hours / 7 Days

Online Orders via modem: (910) 350-8061 10 lines, all 14.4K  
 (910) 799-0923 Direct 28.8K line

Ordering and general ordering questions:

Via AOL: [bmtmicro](mailto:bmtmicro)  
 via MSN: [bmtmicro](mailto:bmtmicro)  
 Via Prodigy: HNGP66D  
 via Compuserve: 74031,307  
 via Internet: [orders@bmtmicro.com](mailto:orders@bmtmicro.com)  
[telnet@bmtmicro.com](mailto:telnet@bmtmicro.com)  
<http://www.wilmington.net/bmtmicro>

We accept Visa, Mastercard, Discover, American Express, Diners Club, Carte Blanche, Cashiers Check, Personal Check. Personal checks are subject to clearance. Eurochecks in DM are welcome. DM, Sterling, and US Currency is welcome but send only by registered mail, return receipt requested. We cannot be liable for lost cash sent through the mail.

Purchase orders are welcome, subject to approval. The minimum amount is \$250.00.

Company: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

City: \_\_\_\_\_ State/Province: \_\_\_\_\_

Postal/ZIP Code: \_\_\_\_\_ Country: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

E-Mail #1 \_\_\_\_\_

E-Mail #2 \_\_\_\_\_

Product	Quantity	Price	Number of copies	
InJoy Basic Client		\$30.00	x _____	= + \$ _____
InJoy Extended Client		\$45.00	x _____	= + \$ _____
InJoy SOHO Client		\$85.00	x _____	= + \$ _____
InJoy Professional (25 users)		\$200.00	x _____	= + \$ _____
InJoy Professional (50 users)		\$400.00	x _____	= + \$ _____
InJoy Professional (100 users)		\$700.00	x _____	= + \$ _____
InJoy Professional (250 users)		\$1000.00	x _____	= + \$ _____
InJoy Professional (500 users)		\$2000.00	x _____	= + \$ _____
InJoy Professional (1000 users)		\$3000.00	x _____	= + \$ _____
North Carolina Residents add 6Sales Tax				+ \$ _____
Shipping and Handling (no quantity limit / see below)				+ \$ _____

- Email - Subject to Credit Card Verification Free
- Fax (USA/Canada)..... 1.00 US
- Fax (Non-North America)..... 2.00 US
- Worldwide 1st Class ..... Free
- 2nd Day Priority, USA Only ..... \$ 4.00 US
- US Postal Service International Express  
(Including Canada and Mexico), allow up to  
7-10 days ..... \$ 25.00 US
- Airborne Select Delivery (USA Only) \$ 8.00 US
- FedEx Overnight, USA Only (delivery by  
3:00 pm the following day) ..... \$ 15.00 US
- FedEx Europe/Japan (guaranteed delivery  
within 3 days) ..... \$ 35.00 US

Total: \$ \_\_\_\_\_

For credit card payment only

Circle one: VISA / Master / Discover / American Express / Diners

Credit card number: \_\_\_\_\_

Expiration date: \_\_\_\_\_

Authorization signature: \_\_\_\_\_

IMPORTANT!

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When you E-mail us your order form, we will reply with an acknowledgement. If you do not get an acknowledgement within 24 hours please send your order again in case it was lost. This extra bit of caution can save a lot of confusion.

If you are concerned that your order is taking too long to process, feel free to check with us about the status of your order. It's important to all of us that you feel safe doing business with our company and please feel free to suggest ways we can improve our service to you.

=====  
- Cut here -            End BMT Micro Order Form            - Cut here -  
=====

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RELEASE.TXT  
InJoy Release 2.3  
October 1, 1999

InJoy

The Best Way To The Internet

F/X Communications  
DK-4300 Holbaek  
Denmark  
E-mail: [injoy@fx.dk](mailto:injoy@fx.dk)  
<http://www.fx.dk>

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RELEASE NOTES

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o Release 2.3

Doc 4

4.1-4.8



- New: IPSec support.
- New: Specification of [multiple] service port ranges in firewall rules. Also exclusion of individual ports and port ranges are now possible.
- New: New and improved filter and firewall rule samples.
- New: IP addresses of DNS servers now listed in Connect Box.
- Fixed: Minor problem with dynamic DNS used in combination with a fixed DNS address.

o Release 2.2 - June 1, 1999

- New: Dialer API for embedded systems - seperately available.
- New: NAT support for TRACERTE.
- New: NAT support for CUSEEME.
- New: NAT support for IDENTD.
- New: Server assigned DNS addresses (RFC1877).
- New: UserID and Password prompting at dial up.
- New: Cached support for the mptn/etc/services file.
- New: Firewall and filter updates on the fly.
- New: Keyword to replace the dynamic IP address in firewall rules.
- New: Using new IBM header files (with whatever benefits/problems that can cause).
- New: Command line option /X to turn off title bar updating in registered versions. Necessary for TSHELL.
- Fixed: Autostarting at disconnect was only executed if InJoy initiated hangup.
- Fixed: UDP Len errors removed.
- Fixed: Bug in traffic accounting when using mega byte notation.
- Fixed: ISP assigned 0.0.0.0 IP addresses now triggers InJoy to try an alternative negotiation.
- Fixed: Port redirecting of telnet and www protocols.
- Fixed: IRC DCC SEND improved.
- Fixed: Improved stability for leased lines, even when CARRIER is not stable.
- Fixed: Filtering required a connection before put into operation.
- Fixed: Using Warp 3 IP stack, DoD could result in two default routes.
- Fixed: DoD interface options were greyed out when starting InJoy from an icon.
- Fixed: problem when COM port was set to be always open. Could cause selection of the Terminal window with no dialing to follow.
- Fixed: Long time idle tcp/udp connections going through NAT could timeout.
- Fixed: Switching between InJoy 1.x and 2.x may no longer be possible without booting.

o Release 2.0b (Beta) - Sep 1, 1998

- DOD improved.
  - Instant DOD removes need for an initialization call.
  - DOD trigger packet in the DOD.DMP file.
  - Implemented filtering plugin.
- Numerous PPP implementation changes to meet requirements of a PPP Server and allow shared PPP code between projects.
- New registration scheme (includes expiration of 1.x and earlier Basic registrations).
- Introduced new way of adding the PPP0 interface on Warp 4. Got rid of the annoying .0 route.
- Support for PING from NAT clients. Done by broadcasting ICMP replies to all NAT clients.
- Support for IRC DCC CHAT and IRC DCC SEND via NAT.
- If InJoy sees a default route at startup, it is now removed at connect and restored at disconnect.
- TCP/IP 4.1 support.
- New internal code libraries (DLL's) for:
  - Common OS/2 functions used in all F/X products
  - Low level IP
  - NAT/Masquerading
  - Filtering
  - Firewall

- Autostart section
  - "Hangup and Exit", now runs the programs set up to autostart at InJoy Disconnect.
  - Fixed the problem of not being able to start programs after a while (caused by InJoy "remembering" every started program, even when it didn't need too).
  - No longer mandatory to specify a working directory. If not specified the path name from the .EXE name will be used. (Just like OS/2 usually does it.)
- InJoy no longer prompts for user-action when RESOLV file could not be updated. The situation is just logged!
- Added date to IN-JOY.TRC file.
- Fixed the bug causing the following two settings to be swapped:
  - Average CPS based on data sent.
  - Average CPS based on data received.
- If the COM port can't be opened, InJoy will now retry till a key is pressed.
- Added the option for showing or removing the "connected box".
- The "connected box" now shows the number of FCS errors in the session.
- A press of SHIFT-F9 now dumps the NAT table (masqed users).
- Added an option to allow a "send terminate request" prior to InJoy initiating the hang up.
- Added triggered dialing capability from SETJOY.EXE.
- Multi-homed environment for hostid (known in DOIP as the "Primary Interface") is now available in General Options.

o Release 1.20 (Beta)

- Fixed a problem with SetJoy's password command line switch.
- Squashed a bug causing MS-CHAP setting to be ignored. (If the server requested it, it would always run.)

o Release 1.14 (Beta)

- Found and fixed a nifty trap that would occur if the ISP sends a packet with a size bigger than the MRU on the serial interface, yet smaller than the maximum sized PPP packet.
- Hostnames starting with 'H' used to be ignored if specified on command line.
- Fixed a trap that is very unlikely to happen on most installations. Would only happen if the TCP/IP stack delivers packets bigger than MTU. Seemed to happen sometimes in the middle of backup procedure.
- Added a SetJoy /P: switch to allow a password to be passed in combination with the /O:<host> parameter.

o Release 1.13 (Beta)

- Reworked the ticker summary to accommodate differences in FAT and HPFS considered.
- Redial attempts made 4 digits wide (1-9999).

o Release 1.12b (Beta)

- Removed Visual Age (tm) optimization as that caused all InJoy disconnect actions to be grayed out, even when registered at the "Extended Client" level, or higher.

o Release 1.11b (Beta)

- Bug in SLIP idle timeout tracked down.
- Registration processing is now faster and and more secure.
- Since changing an unnamed ticker caused a trap, it is now impossible to save a ticker with no name.
- Stopping a dial attempt with the ESC key, after a script had started running caused a redial instead of a simple dial abort. Bug found and exterminated.
- Ported InJoy to VisualAge - enabling a fair amount of optimization,

both to InJoy itself and the user-interface.

- InJoy now uses the OS2\_SHELL environment variable to know which \*.CMD to spawn when autostarting \*.CMD files.

o Release 1.1

- Created Host Triggered Dialing - a Dial on Demand, in reverse. With the correct code, a server, ISP or laptop connected 'road warrior' can trigger a reboot and/or dial-back on command.
- Completely reworked the autostarting section. It is now possible to start/stop selected programs with F9/F10 keys; at InJoy launch, just prior to dialing, at host connect, just prior to disconnect, at disconnect and at InJoy exit. (Any other needs? <G>)
- Developed a 'work around' for a bug in the auto-stopping of an auto-started program.
- Created SetJoy utility to change InJoy's operating parameters while loaded and running. Options available now are changing the Idle Timeout or Timer values or causing a disconnect.
- With SetJoy and the new autostarting routines it is possible to pause InJoy and allow autostarted program launch and operation PRIOR to dialing and/or disconnect.
- Added feature to allow InJoy to access NT servers running the MS version of CHAP
- Fixed SLIP (it switched to PPP in some circumstances)
- Made the GUI Ticker's browser file name longer
- Added non-scaled bitmap support to GUI Ticker
- GUI Ticker's "VCR" controls now work
- Created new default scheme for the GUI Ticker
- Fixed a bug which allowed an opening screen to react to a previous screen's mouse click
- Fixed a cursor movement problem for some input fields
- Minimum redial attempt value cannot be set to less than one
- Fixed a trap that occurred when attempting to shut down while the 'About Box' was opening.
- Added function key support for starting and stopping tickers. Use F7 to start and F8 to stop tickers.
- Added text to the bottom line of the terminal window which lists function key usage. Text changes periodically.
- Changed the dial timeout value to 3 digits
- Ticker protocol updated and bug-fixed.
- Ticker text begins 'crawl' from the right edge and and clears during font resizing.
- Fixed the EXCEPT0.DLL sharing problem.
- Fixed trap caused by calling a non-Dial on Demand host and then switching to a Dial on Demand host.
- Added option to turn off screen tracing.
- Program now removes the x.x.x.0 route generated and left by OS/2's TCP/IP. (However, this does not solve the entire problem.)
- Added IPTRACE support.
- Added option to turn off screen tracing. To save CPU usage when looking for a problem.
- Fixed a trap that happened on some computers out of the blue.
- Fixed the www.microsoft.com connection problem for IP Masqueraded LAN clients.
- Hang-up string now accepts changes.
- Reformatted the trace output screen and altered a few sounds.
- Repaired connection log decimal point shifting bug which yielded an invalid number of hours connected for some long connections.
- Fixed a problem that allowed MTU to not always be set correctly for SLIP.
- Added option on the communications setup page to automatically launch packet mode when dialing via Terminal Mode (e.g. on a leased line or NULL modem).
- Changed the maximum allowable setting for MRU from 4096 to 4136.
- Added option to ignore ISP sent ECHO requests (testing for "live" connections) allowing timeout clock to continue running.
- Fixed bug which caused round robin dialing to call selected numbers only.
- Fixed a bug that caused auto-started \*.CMD files to not have parameters passed to them at start up

- Reset COM port stopbit to +1.
- Added incoming and outdated ticker types. New articles go into incoming, and outdated ticker postings go into the outdated ticker type.

o Release 1.00

- Lots of small changes that could easily double the size of this README.
- Implemented IP masquerading. Share a SLIP/PPP connection simultaneously with work stations on your LAN, including Mac's/s, Win95, 3.1 and all other TCP/IP clients. Only a normal, single user, dialup account with either a static or dynamic IP address is needed.
- Option implemented for not masquerading the InJoy, allowing for any possible protocol or server.
- Added autostart per host.
- Releases COM port when not really in use.
- PAP/CHAP can now be individually enabled/disabled.
- Added option to make the scripts interactive, so they can prompt for input (e.g. a constantly changing password).
- Implemented the graphical ticker. Several instances of the ticker can be run with individual schemes.
- Implemented SLIP and Compressed SLIP.
- Script handling extended with automatic IP number grabbing for SLIP.
- Implemented Dial On Demand.
- Port speeds configurable to 345,600 (hardware and driver permitting)
- Auto line drop if modem negotiates a low speed connection. Feature known as minimum connect speed.
- Disconnect actions. Exit at any of these events:
  - Any disconnect
  - Any unprovoked disconnect
  - Idle TIMEOUT
  - TIMER expire
  - Dialing failure
- Changed re-connect for operation even if the SLIP/PPP connection was not fully established.
- Added phone number list with up to 10 phone numbers.
- Added option for PPP FLAG, allowing you to specify how big the interval between packets must be, for InJoy to insert a 0xFF at start of the PPP packet!
- Added several new fields to the connection log. A few are shown on connection log screen, the rest can be seen in CONNECT.TXT, while online . . . it has lots of information about your connection.
- Better support for sharing a single modem within an IBM PEER workgroup
- Added option to disable all sounds.
- Added options for disabling the timeout and timer warnings.
- Graceful logoff - use ALT-T to do a graceful logoff as described in the PPP protocol.
- Configurable user confirmations.
- Added dial timeout. Disconnect if dialing is not done within x seconds.
- Added configurable hang-up string.
- Lots of new CPS options, like smart notation, idle sensitivity, etc.
- Added option for NOT giving warning box at hang-up fail.
- Better support for leased line with DCD constantly high!

o Release 0.09

- Fixed a bug in ACCM handling. ACCM specifies a table of characters that must be escaped. If the table was zeroed, I optimized by not escaping anything and used the quick memory copy functions. However, I had temporarily forgotten that two bytes must always be escaped.
- Introduced the 'General Setup' section which allows user to specify confirmation and 'About Box' setup.
- Fixed minor bugs in the screen library which sometimes let the

- 'Connected Box' show through the other screens. That has has been partly fixed. There is still a known problem if you invoke some screen dialogs during negotiating phase of log on, so DON'T!!
- Updated documentation and added info for changing parity within scripts.
- When auto selecting a host (from either the command line or the auto connect flag), that host is now highlighted in the 'Host List Box'.
- Auto connecting to a host disables the start up 'About Box'.

o Release 0.08

- InJoy converted to shareware.
- Added commercial server/announcement ticker (OFF is default).
- Started the documentation.
- Added BETA support for PM patrol (PM Patrol 4.2d).
- Added parity switching within the script, making InJoy the best choice for CompuServe users.
- Moved the CPS information near the bottom, just above status line (as users wanted).
- Check box added to switch CPS monitors on or off. (Turning the monitor off releases more CPU resources for other uses.)
- Can now abandon current dial attempt by pressing the SPACE key.
- Fixed a bug regarding forcing ACCM to 0.
- Did some limited software optimization.
- KILLJOY.EXE included in archive. Allows killing of InJoy while connection log is still updated.
- Added an InJoy icon (Can you design a better one?)
- Added use of [\$PASSWORD] and [\$USERID] in scripts to protect encrypted passwords.
- No longer is 0.0.0.0 accepted as gateway address. This could cause TCP/IP stack related traps due to an error in a few (old) servers.
- Worked to make InJoy more trap proof.
- Did some more tests using COM.SYS and learned it cannot handle simultaneous writes from two or more threads. For now I serialize just a bit more, but it will cost on performance. Later I will make put it a user selectable option. This will solve the "reading/writing port" problem.
- MRU wasn't used properly and an MRU of 0 was indicated on first configure request.
- 'Connected Window' shows IP addresses and timer/timeout info.
- Speed now reported correctly when doing a 'netstat -n'. The speed reported is the one of the COM port.
- Made an important change for the CHAP negotiation which will only have effect connections to a Windows NT server. The ones I have explored handle CHAP/PAP negotiations very interestingly!
- InJoy now supports host name directly on command line.
- When learning a script, it now remembers what was received just before pressing ESC. It didn't before and that caused problems.
- A 'Check Box' added to autostart dialog to allow easy means to disable a program from being autostart started.
- Redial is now working as follows:
  - Primary phone number is called as many times as specified by the redial attempts.
  - Secondary phone number is called as many times as specified by the redial attempts.

o Release 0.07

- This version shows IP addresses in the 'Connected Box'.
- MRU was always set to 0 in first negotiation block, now fixed.

o Release 0.06

- Autostarting of programs added.
- PPP options now available:
  - Priority (for the PPP threads)
  - MRU

- FCS check (disable)
- Automated pinger (not ready)
- Interface attachment name (e.g. 'PPP')
- Force ACCM to 0
- Protocol compression
- Address and control field compression
- Restart timer (can really improve cut negotiation time)
- Max tries (of times to send a negotiation block)
- Auto re-connect now works
- Negotiation times should be very small. I negotiate with my host in 2 seconds! (Use care with restart timer under PPP options. See USERGUID.TXT)
- Connect strings shown in 'Connected Box'. Only works if InJoy makes call, or if terminal mode dialing uses a script that waits for something after the CONNECT string.
- Automatic rejection of unknown protocols should make sure the user no longer sees a series of 'unknown protocol' being reported.
- Graceful logoff added. Pressing ALT-T makes InJoy send a "PPP Terminate Request", which is good for those hosts that do not deal with a carrier drop very well.
- Added ability to automatically dial and connect to host upon start
- Now encrypting password in data files
- Fixed IP addressing now works
- Added a connection log, with accumulated time usage
- Reset button added to the trace setup (deletes the trace file)
- No more external calls to IFCONFIG and ROUTE (saves some time)
- New hangup algorithm (awaits your test)
- Now shows disconnect message in 'Terminal Mode Window' at disconnect
- Added version number to data files so user should never have to create hosts from scratch, again.
- This version required re-creation of hosts one last time. Sorry!
- Redial bug fixed.
- Time stamp added to trace lines.
- Now clearing 'Output' and 'Terminal Window' at [Dial] press
- Total time connected added to the 'Connected Box'
- Phone number field made longer
- Unknown IPCP option problem fixed . . .

o Release 0.05

- Fixed some giant bugs concerning IP address negotiation
- Changed the ACCM to shifting all control characters, so this version could seem a bit slower . . . I'll fix that later.
- Problem with second dialing attempt (the timeout could occur at any time) fixed.
- Trapping with full trace fixed.
- Corrected problem with the script starting before the connection was stable (right after retrieval of the CONNECT string, without having waiting for DCD).
- Pesky IPCP bug search is on. If you experience an "Unknown IPCP option...", mail me for a fix!
- Found a bug when selecting port speed. If the speed is reported correctly in the status bar, then you don't have the problem.

o Release 0.04

- Fixed timing problems when going from LCP to IPCP.
- Fixed a CHAP problem using algorithm's different from 5
- Now you see no hard errors if InJoy cannot open the COM port.
- Added netmask setup and support.
- Dialing and scripting ready . . . in an early state.
- 'Timeout' and 'Timer' functions available . . . in an early state. Both functions includes a warning prior to line drop.
- Now beeps when connected and disconnected (unprovoked)
- Improved the screen library so mouse works better
- Enhanced some negotiation options: For now, InJoy attempts to change the ACCM option to 0, which improves performance, but it can increase the time needed to negotiate a host connection.

- Changed the way handling of unsupported CHAP protocols are negotiated. I'll now try to NAK to the normal algorithm MD5.
- Added trace date and version to the trace file.
- Still have cursor problems in the 'Terminal Mode Window', why?
- Hang Up changed so it uses both DTR drop and +++ATH. ATH is only used if DTR drop didn't do the job
- And much more.

o Release 0.03

- Speed improvement (sometimes doubled, at least when high speed connected, such as ISDN)
- Selecting Hang Up no longer changes focus from the 'Terminal Mode Window'
- Color improvement of the line usage bar.
- The dialing and host setup problems of the first two releases still persist!

o Release 0.02

- Tracing made configurable
- Line usage monitoring enabled
- Domain name server field is now 50 bytes

o Release 0.01

- Cursor in 'Terminal Mode Window' is not handled correctly
- After changing a configuration, you have to select it before making the changes active

o First release (ever)

- 'Save as Default' gives the host you are creating the name default
- Selecting a host in the 'Host List Box' using the ENTER key while connected to a host, causes a trap.
- Cursor in the 'Terminal Mode Window' is always there (even when the window is not active).
- 'Your hostname' is not handled correctly. If a correct hostname is essential for you, then make sure to have 'SET HOSTNAME=<your host name>' in your CONFIG.SYS file
- After changing a configuration, you have to select it before making the changes active
- Selecting Hang Up changes the focus from the 'Terminal Mode Window'

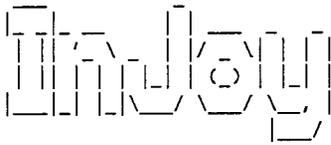
=====  
 A C K N O W L E D G E M E N T S  
 =====Giving Credit Where Due=====

I would like to thank all the people who helped during the beta test phase. Without their motivation I would have stopped this long ago. A few of those deserving special recognition for their service are now members of the InJoy Team and more information on them is found on my Web site.

See <http://www.fx.dk/>



USERGUID.TXT  
InJoy Release 2.3  
October 1, 1999



The Best Way To The Internet

F/X Communications  
DK-4300 Holbaek  
Denmark  
E-mail: [injoy@fx.dk](mailto:injoy@fx.dk)  
<http://www.fx.dk>

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=====  
C O N T E N T S  
=====

=====  
What's Where  
=====

DOCS

S.1-5.34



- o Starting InJoy.....A Few Tips
- o Entering the key code.....To Unlock InJoy's Power
- o InJoy screen layout.....A Familiarization
- o Online hints.....InJoy's Efficient Help System
- o Creating a host.....A First Step To Connecting
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- o Network Address Translation (NAT).....Many Through One
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- o Host Triggered Actions.....Distant Command
- o Script setup.....Simple and Effective
- o Script language.....Roll Your Own
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- o Dialing.....How InJoy Dials, and Why
- o CONNECT.TXT.....Your IP Address, Instantly
- o Hanging up.....Several Ways to Say Good-bye
- o Tracing.....Capturing Tech Data
- o Connection log.....Capturing Connection Data
- o Textmode Ticker.....Ticking
- o General setup.....InJoy is So Flexible
- o Auto-starting modules.....Start and/or Stop
- o Command Line Options.....Customized Starts
- o Keyboard Shortcuts.....Busy Hands
- o SetJoy.....Connected Changes
- o KillJoy.....The Ultimate Ending

=====

STARTING INJOY

=====

=====A Few Tips=====

- o Start InJoy like any other OS/2 program, either by making an icon referencing IN-JOY.EXE, or by running InJoy directly from the command line.
- o If COM 2 is not available on your system, InJoy will report "Could not open device" when starting the FIRST time. Simply click on OK to proceed with initialization. Then, during setup (see below) you must specify the correct COM port in InJoy's "default" host.

=====

ENTERING THE KEY CODE

=====

=====To Unlock InJoy's Power=====

After your registration has been processed you will receive a key code to unlock InJoy's power, at the level purchased. To unlock:

- o Open InJoy.
- o While on the opening screen press SHIFT-F10.
- o Enter your name and your key code with care. BOTH your name and key code is case sensitive and must be entered EXACTLY as provided.
- o When both have been entered, and checked for accuracy, click on OK.

- o When you return to the main InJoy screen the registration will proceed and after waiting a few seconds, you can press SHIFT-F10 to check if your registration info was accepted.
- o Restart InJoy!

```
=====
I N J O Y   S C R E E N   L A Y O U T
=====A Familiarization=====
```

Refer to the following "screen shots", or just open InJoy and look at the real thing while learning about the six sections of InJoy's display:

- o Terminal Mode Window

Used during Terminal Mode operations and to display bytes received/transmitted while dialing, and when running a connect script.

- o Host List Window

Contains user defined hosts and all controls necessary to create, edit and remove host using the manipulation buttons [New], [Change] and [Delete]. For ease of use, the [Dial] button is immediately below the list of user configured hosts.

- o Output Window

Shows InJoy messages and trace information, if trace is enabled.

- o Other Control Buttons

Immediately below the Host List, and next to the Output Window, are additional buttons for the purpose of forcing a line drop [Hang Up], accessing/setting miscellaneous options [Misc. opt.] and for closing InJoy [Exit].

- o Characters Per Second (CPS) Info Line and Bar Chart

Provides real-time data (from left to right, with displayed symbols) on:

- ▲ Total characters sent on communications line since connect
- ▼ Total characters received on comma line since connect
- ↑ Current CPS transmission rate, updated every second
- ↓ Current CPS receive rate, updated every second
- avg Average CPS processed during last second
- max Peak CPS processed during any second of current connection

The last two numbers (avg and max) are based on the sum of both transmitted and received characters. Notice that these numbers are what is actually sent and received, including PPP encapsulation characters. Additionally, the Info Line is calculated at a rather low priority within InJoy (keeping the pipe full is a lot higher on the food chain), therefore some of the 'every second' updates will occur during a rather long second.

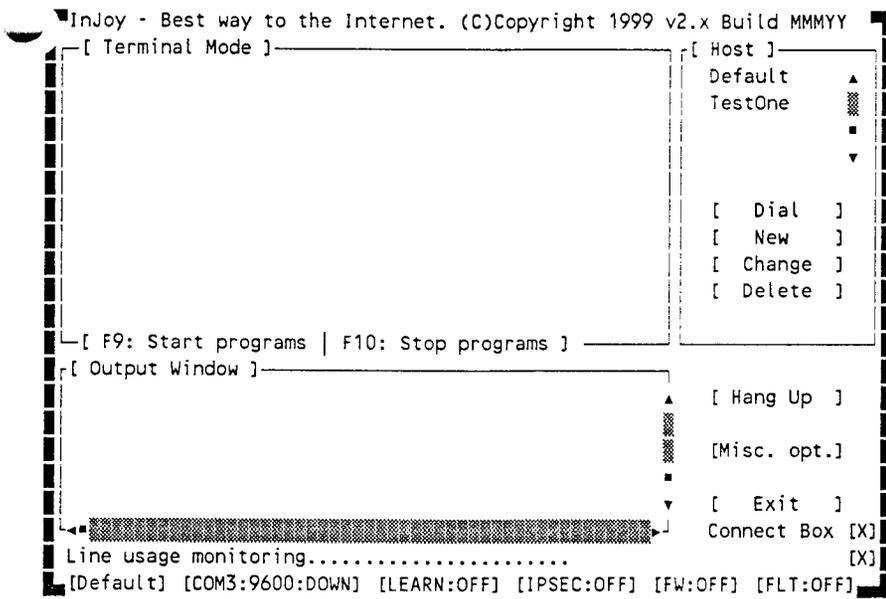
Immediately to the right of the "max" data point is a display of the total CPS receive and transmit rate in a visual Bar Chart Line.

The check box on the right of the visual indicator will toggle the entire Info Line on or off.

When using InJoy with Dial On Demand (DOD) with the "display DOD indicator" option turned on, the CPS Bar Line displays the DOD packet scan. This is only the case when off-line, so that function will not conflict with the normal use of the CPS monitor.

- o Status Line (at the bottom): Shows information about the current status of InJoy and status of plugins.

These sections yield the following screen layout:



=====

ONLINE HINTS

=====InJoy's Efficient Help System=====

Useful hints are available at the bottom of the InJoy screen when operating within following described setup screens. These online hints change as the various portions of the setup screens are highlighted for data entry, or toggling. Therefore, since the hints are context sensitive you will find them very useful in completing even the most complicated setup.

In fact, most people find that the hints are all that is needed to successfully complete all initial setup and performance tuning steps.

=====

CREATING A HOST

=====A First Step to Connecting=====

To connect your computer or network to the Internet, you must start by defining a host. The host configuration constitutes the parameters and options needed to communicate successfully with your ISP (Internet Service Provider).

InJoy is shipped with a "default" host which cannot be deleted. You may modify to suit your needs, and you should set the "default" host to match the settings to use at InJoy start-up. For instance, most people modify the "default" host so that it has all the settings necessary to connect to their Internet Service Provider.

However, before overwriting the "default" consider this: Most people find that the "default" works as well as (and in many cases, much better than) competing dialers. Therefore, it is suggested that you replace the "default" only after you have another host with tested capability. Additional information on this subject is available in the section

"Saving Host Info", below.

Please note that the settings contained in the "default" host are used in creating new and/or multiple hosts. Additional host are created by selecting the [New] button or pressing <Insert> while the Host List Window has the focus.

```
=====
H O S T   S E T U P
=====Who You Call=====
```

- o When creating a new host, the first screen prompts you for a configuration name, user ID and password:

Host setup

Configuration name...  
TestOne \_\_\_\_\_

User ID...  
YourID \_\_\_\_\_

Password...  
\*\*\*\*\* \_\_\_\_\_

Protocol  
 PPP  
 SLIP

Ok      Autostart per host      Cancel

The configuration name you provide becomes the host name used by InJoy in the Host List Window to identify the set of parameters that defines one particular host. For example: If your Internet Service Provider is IBM you might want to use IBM as the host name. On the other hand, if you will use several IBM gateway telephone numbers (say for a portable computer), you might want to set up numerous host, each with a different city's name.

- o Fill in the User ID and Password fields with the values supplied by your ISP. Those are the values which will be used by log on scripts or PAP/CHAP authentication protocols.

It's possible to enter a '?' in any of the fields, in order to be prompted for a user and/or password prior to connecting.

- o After filling in those three items select the appropriate radio-button for either PPP or SLIP. Your ISP should be able to tell you which protocol is most likely to provide the best service. But, without other information available, you should probably attempt to connect first via PPP.

Refer to other sources for a description of the differences between PPP and SLIP.

```
=====
P P P / S L I P   S E T U P
=====
```

=====Setup One or Both=====

When you have gone through the fields of the previous host setup screen and selected to run either PPP or SLIP as framing protocol, you will see a screen like this:

```

  PPP setup
  IP address configuration
  Your IP address...: 0.0.0.0
  Dest. IP address.: 0.0.0.0
  Netmask.....: 255.255.255.0
  Domain nameserver
  Nameserver address: 123.123.123
  Backup nameserver.: 123.123.123
  Your host name....: whatever
  Domain name.....: your.com

  [ ] Auto connect
  [X] Firewall / NAT      [... Firewall Setup]
  [X] Packet Filtering   [... Filter Setup]
  Timeout.: 9000 secs.
  Timer...: 9999 min.    [... Disconnect actions]

  Save
  Save as default

  Comm setup  PPP options  Script setup  Cancel
```

NOTE: "Screen shots" in this text document are unable to accurately render those sections of the screen which are "grayed out" on the actual InJoy setup screen. For example: Both the "Firewall / NAT" and "Firewall Setup" in the above screen are "grayed out" in the distribution archive's Basic Version since those features are only available in the more advanced versions.

NOTE: The screens are nearly the same for PPP and SLIP. Each of the various items you need to fill in are explained below. Additionally, the differences between setting up for PPP or SLIP are explained, where necessary:

o Your IP address

This is the Internet Protocol (IP) address that your computer will use throughout your session. The value 0.0.0.0 means that InJoy should obtain your actual IP address from the ISP server, during log on negotiation.

Obtaining the IP address from the server is the standard way of assigning IP addresses using PPP, but it is possible to specify an IP address when the server will not dynamically assign one.

For SLIP you should either use an IP address statically assigned to you by your ISP or auto-grab it from the text stream transmitted by your server at connect.

o Destination IP address

This is the IP address of the ISP's server. It is normally assigned by the PPP server during the log on sequence. However, some providers specify a fixed IP address that you should enter here.

For SLIP you should either use a static IP address assigned by the ISP, or auto-grab it from the text transmitted by your server during connect.

o Netmask

The netmask specifies the IP addresses which are supposed to go through your SLIP0/PPP0 interface. If you did not receive an assigned netmask from your ISP then leave it as set (255.255.255.0).

o Auto connect

Marking this check box causes InJoy to attempt an auto-connect to this host during start-up.

Since InJoy can only attempt to connect with one host at a time, marking this block in one host automatically resets all other hosts to not attempt an auto-connect.

o Firewall / NAT

Refer to FIREWALL.TXT and the NAT section, below.

o Packet Filtering

Refer to FILTER.TXT.

o Timeout

This is the "idle timeout". It specifies for how long the line may remain idle (i.e. nothing being received) before InJoy will automatically disconnect the line. The timeout counter will not reset for outgoing only, traffic. It may be set from 0 to 9999 seconds.

If the timeout value is larger than 60 seconds a timeout warning (consisting of four beeps) will be sounded and the phrase "TIMEOUT: 1 min. to disconnect . . ." will appear in the Output Window.

You may reset the idle timeout by pressing ALT-R, in which case your connection will continue as if nothing happened.

A note of caution is advisable here. Some users (myself included) set the idle timeout to five minutes or so, and walk away from the computer after beginning a long download/upload . . . knowing that when finished InJoy will drop the connection, as the idle timer reaches zero. Be careful, many hosts periodically send dummy data on the line in order to avoid unintentional disconnects. Therefore, if you are paying for your connection by the minute (to either your ISP or telephone company) you might want to insure the line is dropped within a reasonable time after data flow has stopped.

To completely disable the idle timeout, specify a value of zero. In that case, the line will never be dropped due to inactivity.

o Timer

This timer specifies how long InJoy may stay connected before it will automatically disconnect. Set any value from 0 to 9999 minutes.

This function is much like the one on your VCR or TV that enables you to automatically turn it off after half an hour or so, without worrying about the TV starting a fire during the night.

As it can go wrong for a television, so it can for InJoy too. If InJoy has a problem disconnecting there is nothing it can do except increase your phone bill (InJoy has never started a fire!).

Notice that if the timer value is set to more than one minute, you will hear/see a timer warning similar to that described for the idle timeout. And, you may reset this timer by pressing ALT-E.

To completely disable the timeout, specify a value of zero. In that case, the line will never be dropped for exceeding a preset time on line.

o Disconnect actions

Please refer to the "disconnect actions" section.

o Nameserver & Backup nameserver address

The nameserver and backup nameserver are IP addresses of your preferred nameservers.

If your ISP supports "server assigned DNS addresses" (RFC 1877), then enable the negotiation by entering 0.0.0.0 in the nameserver fields. Only nameserver fields containing 0.0.0.0 will be negotiated.

The nameserver addresses are put into the %etc%\RESOLV file. This file is referenced by the TCP/IP stack for nameserver lookup's.

You should make sure that your ETC environment variable is set up correctly. Normally the ETC environment variable is set when you install OS/2 TCP/IP base kit and/or Internet Access Kit. However, to check, look in your CONFIG.SYS for a line like:

```
SET ETC=x:\tcpip\etc
```

Then look in that directory to make sure it contains a file named RESOLV (no extension).

Currently, InJoy will not preserve new or special options that might already exist the RESOLV file. This is being worked on and new capability regarding this may be expected in future releases.

If you experience problems resolving host names (even though you feel your nameserver is set up correctly) check for the existence of a RESOLV2 file in your ETC directory. The RESOLV2 file is sometimes used (seems to depend on TCP/IP stack version) on a LAN. Edit the existing RESOLV2 file or simply copy your standard RESOLV file over RESOLV2 to either refresh or create the secondary RESOLV file.

InJoy does not automatically alter the contents of the RESOLV2 file.

o Your host name

The host name is a bit tricky. As set in your CONFIG.SYS file applies to ALL instances, except in programs auto-started by InJoy. Auto-started programs use the host name you place in this block.

So, if you need a special host name for some reason, set it up in the CONFIG.SYS using string similar to:

```
set HOSTNAME=your_host_name
```

Normally you can leave the host name field blank in InJoy, as it is for special needs.

o Domain name

This is the domain in which your computer exists on the Internet. You should specify the symbolic name that you have received from your ISP.

```
=====
C O M M U N I C A T I O N   S E T U P
=====Basic Stuff, Use the Online Hints=====
```

The communication setup screen enables you to specify the parameters

required for your communication link:

Communication setup

Call control

Let InJoy make the call  
 Use Terminal Mode     Instant pkt mode if DCD=ON at dial time?

Port setup

Port setup.....: COM3     Use hardware flow control  
Port speed.....: 57600  
Minimum connect speed: 28800    Dial timeout: 45 seconds

Modem & Dialing

Phone number #1.....: 555-1234  
Modem initstring #1..: AT&F  
Modem initstring #2..: Specify it  
Dialing prefix.....: ATDT  
Hangup string.....: +++~\*~\*~ATH0

Redial/Reconnect

Redial  
Attempts.....: 1  
Pause between.: 5 sec(s)  
 Reconnect at conn. loss

Ok    More phone numbers...    Cancel

Most of this setup you probably already know from other communication programs, so lets focus on the InJoy specific parameters:

o Call control

In this window you specify whether InJoy should make the call for you, or not. If you choose to do so, InJoy will automatically initialize your modem and call the specified host's telephone number, when you click on [Dial].

Your job will be only to answer prompts (like giving user ID and password) after having dialed. (Or maybe you wish to auto-generate a log on scrip, if required. Many ISPs no longer need scripts, see below for details.)

The other possibility is to use Terminal Mode, which will put you in charge of initializing the modem and setting up the call.

Even when running Terminal Mode, you can still generate and auto-run script.

When you choose Terminal Mode as the call control method, then you say good-bye to some valued services like automatically re-dialing and re-connecting after an unexpected line drop, so make sure you have a good reason for selecting Terminal Mode for dialing.

Checking the "Instant pkt mode if DCD=ON at dial time?" causes InJoy to enter packet mode immediately, if DCD is present. If not present, InJoy will revert to terminal mode and the "press ESC to start packet mode" will appear when the CARRIER is up. This feature is just what is needed for a leased line or null modem setup. Using or learning scripts in any way disables this function.

o Phone number #1

This is the primary phone number used if you choose to let InJoy make the call for you.

The phone number you specify here is always the first phone number to be dialed. If your ISP provides several phone numbers in your calling area, you have the opportunity to list them here and have InJoy keep dialing until it finds a free line.

Refer to the "More Phone Numbers" section below, for more info.

o Modem initstring #1

The default initialization strings in InJoy's distribution archive \*MAY\* work satisfactorily, but they are probably \*NOT\* the best for your system, or for your ISP. There are several sources for potentially better init strings. Your closest source is in the FAQ.TXT file shipped with this version of InJoy...look there \*next\*.

o Dial Timeout

This is the amount of time that InJoy will allow your modem to attempt to negotiate a 'handshake' with your ISP's modem. You may set any value between 0 and 999 seconds.

Expect trouble if the modem's initialization string (or modem default) for the S7 value is more than what is set in InJoy's "Dial Timeout" on the "Communications setup" page. That situation allows InJoy to 'time out' and disconnect PRIOR to the modem's 'time out' and disconnect. The solution is to either decrease the S7 time, or increase the value set in the "Dial Timeout".  
Bottom line: Modem S7 needs to be LESS than InJoy's dial timeout.

o Redial

Placing an X next to this attribute causes InJoy to initiate another dialing attempt when the first attempt fails.

- The number of times InJoy should attempt to dial a number is set in the "Attempts" block. (It is not possible to set the value to zero, as that would prevent InJoy from dialing.)
- The amount of time, in seconds, to pause between dialing attempts is set in the "Pause between" block.

o Reconnect at connection loss

This option, if checked, causes InJoy to attempt to re-connect if for some reason the link fails after initially being established. This helps keep a constant connection, making InJoy the perfect choice for keeping a connection alive 24 hours a day.

```

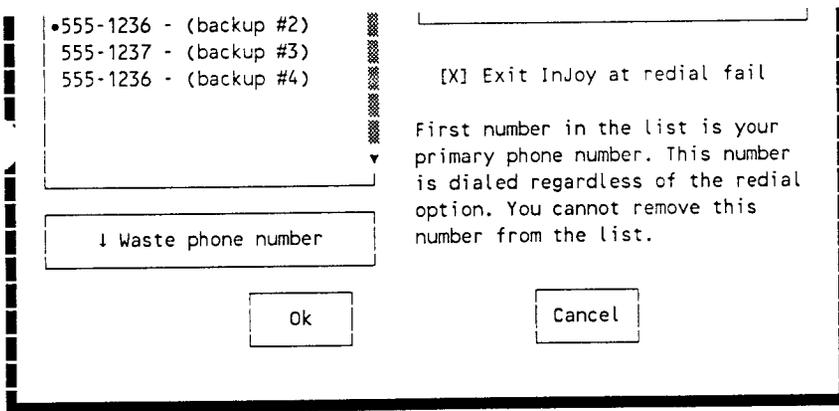
=====
M O R E   P H O N E   N U M B E R S
=====Giving More Chances to Hook Up=====

```

If you elected to have InJoy do the dialing, you may specify a list of phone numbers to be tried in case of unsuccessful dial attempts.

In order for InJoy to use the list you MUST enable re-dialing. Having done so, you are able to click on the "More phone numbers . . ." button at the bottom center of the Communications Setup screen. That will open and the following screen where you may add the additional phone numbers:

Phone number list	
Phone number: 555-1235	What to dial? <input type="checkbox"/> All numbers in list <input type="checkbox"/> Selected numbers only
<input type="button" value="↓ Add"/> <input type="button" value="↓ Update"/>	
<input type="checkbox"/> [ Phone numbers ] <input checked="" type="checkbox"/> 555-1234 - Primary phone nu▲ <input type="checkbox"/> 555-1235 - (backup #1)   ■	Dial sequence? <input type="checkbox"/> Round robin <input type="checkbox"/> Retry each number (1) times



o Phone number

In this field you may add as many as 10 phone numbers to the list.

o What to dial

With this option you control whether every number on the list will be dialed, or if only those selected should be dialed.

Select numbers by using either the mouse or the SPACE key in the "Phone numbers" list box. Selected phone numbers are marked by a different color and a round symbol preceding the number.

Note that the primary phone number cannot be de-selected.

o Dial sequence

In this section you set how InJoy will sequence the listed and selected numbers.

Skipping to a new phone number after each dial attempt is known as Round Robin dialing. Using this alternative causes InJoy to skip ahead to the next number (in the listed sequence) if a busy signal or other non-connect situation occurs on any number.

The "Retry each number (x) times" option will cause listed phone numbers to be tried the number of times specified in the "Redial attempts" parameter before attempting the next number. The "Redial attempts" parameter is set in the "Communication setup" screen.

By learning what the problems are in your area usually are, you will be able to determine, and use, the method provides the best connect rate.

o Exit InJoy at redial fail

You may have the need to continue redial attempts. You can establish that by selecting to quit InJoy after having run through the phone number list.

The "Exit InJoy at redial fail" parameter in combination with the auto-connect to host at start-up will enable you to redial forever.

=====  
 PPP / S L I P   O P T I O N S  
 =====Tune for Speed=====

The PPP and SLIP options screens (accessed by single clicking on the "PPP Options" or "SLIP Options" button in the lower half of the screen) lets you to make choices which help tailor InJoy to your communications line for maximum performance:

PPP options

Toggles

- Allow PAP Authentication
- Allow CHAP Authentication
- Allow MS-CHAP Authentication
- Negotiate ACCM to 0
- FCS checking
- Addr & Cntl field compression
- Protocol compression
- ECHO-REQ resets idle timeout
- Use VJ Compression

Miscellaneous

Restart timer..: 1000  
Max. tries.....: 15  
MRU.....: 1500  
Interface name.: PPP  
Priority %.....: 70  
UI priority %..: 0  
PPPFLAG timeout: 2000 msec.

Ok    Make fast    Make slow    Default    Cancel

Note: Don't overlook the capability in the PPP Options screen to just click on the "Make fast" button and then the "OK" button. The "Make fast" settings might be all the speed you need and it might save you from having to read all this:

o Allow PAP Authentication (PPP Only)

To make sure that you are not authenticating in clear text, turn this option off. However, there is normally there is no reason to turn PAP Authentication off since CHAP is negotiated before PAP, if the host server allows such. Therefore, clear text passing of your user name and password is unlikely, but possible.

The bottom line: If you have special data to protect OR need to be SURE your password is never exposed in clear text turn the PAP option OFF.

o Allow CHAP Authentication (PPP Only)

CHAP is an authentication protocol which does not pass your ID/password in the clear.

With some ISPs you may need to turn off CHAP authentication. There are a few known PPP servers which behave very strangely when they receive a CHAP response, even though they ordered the response themselves.

NOTE on multiple PPP negotiation protocols (i.e. using both PAP and CHAP at the same time). Some ISPs simply can NOT reliably negotiate a connection if multiple authentications are picked. If some PPP negotiations are successful but others fail for no apparent reason, ask your ISP exactly which one they use. Then use it and it alone.

o Allow MS-CHAP Authentication

In the name of security microsoft introduced an extension to CHAP which made their NT servers incompatible with non-MS log on routines. However, InJoy will authenticate using MS-CHAP techniques if you

enable this switch and when challenged for you user account name you must reply in typical NT format, e.g. "redmond\money" where "redmond" is a NT domain containing the user account "money". If a domain is not provided, the backslash should also be omitted, e.g. "money".

If you have trouble you might need these error MS-CHAP error codes:

```
646 ERROR_RESTRICTED_LOGON_HOURS
647 ERROR_ACCT_DISABLED
648 ERROR_PASSWD_EXPIRED
649 ERROR_NO_DIALIN_PERMISSION
691 ERROR_AUTHENTICATION_FAILURE
709 ERROR_CHANGING_PASSWORD
```

They are returned in a line similar to:

```
Remote message: E=649 R=0
```

The "E=" is the error number from the table above, and the "R=" flag indicates whether the error is transient and the client should retry. If you consistently get error 691, then either you're using the wrong account name/password or another problem I'll need to help with. So, check the name/password settings and if problems persist see README.TXT for support contacts.

#### o Force ACCM to 0 (PPP Only)

ACCM - Asynchronous Control Character Map, is a table specifying which characters that may NOT be transmitted transparently on the link.

Today, the use of ACCM is almost gone, but some hosts still set up this table to the default value of 0xffffffff. This means that all characters below 0x20 will be escaped and accordingly occupy 2 bytes each.

Setting the "Force ACCM to 0" will make InJoy attempt to negotiate the ACCM mask to 0, and thereby remove the use of the mask.

Setting the 0 parameter will also make sure that InJoy will not exercise the default 0xffffffff mask to the host.

In general, turning this parameter on is a very beneficial to line performance. Bad side effects from doing so are uncommon.

#### o FCS checking (PPP Only)

Set this parameter on to make InJoy check all incoming packets for a correct Format CheckSum (FCS). Checking will take a little away from total performance (not much though). In most cases there is no need to turn on this feature since the TCP protocol processes the checksum as well.

Be careful though: InJoy's PPP negotiation is NOT running on top of TCP/IP. Therefore, line errors occur while negotiating might give unpredictable results. It is therefore recommended that conservative systems should have this parameter on.

#### o Address & Control field compression (PPP Only)

Each PPP packet includes a few leading bytes that hardly ever change. Selecting this option will force compression of these bytes and save a couple of bytes per PPP packet.

There should be no side effects for turning on this option and the CPU load is not affected by it.

#### o Protocol compression (PPP Only)

This routine compresses the protocol information in the PPP packets

from two to one byte. (Why not save a byte where possible?)

Enabling this option does not take any additional CPU and saves a byte per packet.

o ECHO-REQ resets idle timeout (PPP Only)

Some ISPs send echo request periodically to test if your machine responds (if not, the ISP drops the line). Each request/answer pair resets the idle timer and may cause the connection to never timeout and disconnect. Remove the X from this block to ignore echo requests and NOT reset the idle timeout--this allows disconnects to occur based on the lack of other data flow.

o Use VJ Compression

By enabling this option InJoy will try to negotiate the use of VJ (Van Jacobsen) compression. VJ compression takes some CPU cycles and it is therefore recommended for fast computers and/or a slow line. As a rule of thumb, if you are not running a 66 MHz or faster CPU, you probably won't realize any benefit from VJ compression.

VJ compression will save about 30 bytes per compressible PPP/SLIP packet.

o Restart timer (PPP Only)

The PPP negotiation protocol uses a timer to resend protocol blocks which contained errors again, at the correct time.

For example: If your PAP/CHAP user ID and password block is lost during transmission (maybe due to a bad connection) it must be retransmitted. The time for the retransmission is specified by the restart timer, and the sooner the better (within the limits of your communication line). Therefore, the lower value the better. This parameter can have a BIG influence on the negotiation time, so try to fine tune this value to be as small as possible. (InJoy ships with a default of 1000 milliseconds, work down from there when searching for supreme speed. However, some host have be found which require as much as 5000 milliseconds.)

Keep in mind this timer only affects the time required to negotiate a connection with your ISP. It does NOT affect the actual throughput of the line once the connection is completed.

o Max. tries (PPP Only)

Specifies how many times the PPP protocols blocks should be resent in case of bad or missing response.

Values of 5 to 10 should be sufficient for most implementations.

o Maximum Receive Unit (MRU) (PPP Only)

The Maximum Receive Unit sets the maximum number of bytes that we are capable of receiving in one PPP packet.

Generally, the bigger the better (up to the 4136 max), as the round trip delay of most connections is fairly large.

An incorrect MRU value may be the root cause of an inability to transmit/receive TCP/IP packets even though a PPP connection was successfully negotiated. If you experience that situation, try decreasing the MRU value to see if more reliable operation will result.

During PPP negotiations, InJoy attempts to negotiate the MRU size set by this parameter. However, many host servers do not allow the MRU value to be negotiated and instead dictate the value used. InJoy automatically accepts host dictated values even though higher values improve line performance significantly.

o Maximum Transmit Unit (MTU) (SLIP Only)

This setting is similar in nature to the MRU setting in PPP, except that instead of setting receive packet size, it sets the maximum size of transmitted packages. A setting larger than 1500 (the default) imposes a risk of sending packets larger than those supported by your ISP.

SLIP options

Toggles

- Allow PAP Authentication
- Allow CHAP Authentication
- Allow MS-CHAP Authentication
- Negotiate ACCM to 0
- FCS checking
- Addr & Cntl field compression
- Protocol compression
- ECHO-REQ resets idle timeout
- Use VJ Compression

Miscellaneous

Restart timer...: 2000  
Max. tries.....: 20  
MTU.....: 1500  
Interface name.: slip  
Priority %.....: 70  
UI priority %..: 0  
PPPFLAG timeout: 2000 ms

Ok    Make fast    Make slow    Default    Cancel

o Interface name (Both PPP and SLIP)

This is the symbolic name used as prefix for the PPP/SLIP interface. Keeping the default value of "PPP" or "SLIP" is a good choice. This parameter should only be changed if your ISP directs you to use something else.

o Priority (Both PPP and SLIP)

The priority parameter specifies the priority that OS/2 will assign to the InJoy dialer communication threads.

The value may be fine tuned by hand, but you should be aware of the following:

- Any value larger than 75 percent, will register InJoy as a time critical process. Being time critical is a logic choice for a program handling the CPU demanding COM port.
- However, raising the value much above 75 percent may cause system hangs as the OS/2 scheduler will not allow other processes to "wake up" when they are really needed.

o UI Priority (Both PPP and SLIP)

This option specifies the priority of the InJoy User Interface.

Obviously, a user interface need not have the same priority as the more important communication threads, and accordingly, InJoy lets you assign an individual priority to just this thread.

The UI Priority option has offered the customization to people in need of InJoy functioning in an environment where several applications (e.g. DOS applications) are fighting for the CPU cycles.

Unless you find yourself in this category of users, then it is recommended that you keep the user interface priority at its default value of zero. Zero means keep the priority that OS/2 assigned to

this thread - a.k.a. the default priority.

o PPPFLAG timeout (PPP Only)

Each PPP packet can potentially start with a 0xFF byte. Normally the 0xFF is only inserted in the PPP frame if the line has been idle for a while (normally 2 seconds).

Some servers require this byte in each package, if that is the case with your ISP, set this option to 0. However, since this PPP FLAG byte is not normally needed, you might want to try setting the timeout to the maximum value of 9999, and see if performance improves.

=====  
N E T W O R K   A D D R E S S   T R A N S L A T I O N   ( N A T )  
=====Many Through One=====

NAT allows you to share one dial up connection. With it you can use InJoy as an Internet gateway for your LAN even though you have only one ISP account, one IP address and one modem.

NOTE: NAT is not available in the InJoy Basic Client Version, whether registered or not. This function is only available in the InJoy Extended Client, InJoy SOHO Client and the InJoy Professional Server/Client version.

These applications will run with InJoy's NAT implementation:

- Netscape and WebExplorer (or any other web browser)
- Any FTP client
- Any mail client (PMMail, MR/2 ICE, etc)
- News readers (Agent, NR/2, etc)
- IRC (including DCC CHAT/DCC SEND/IDENTD)
- ICQ
- Tracerte
- Ping
- Cuseeme
- Telnet
- Gopher
- Servers will run only on the InJoy PC. Any other client running TCP or UDP protocol should be running. For servers on LAN clients, use The InJoy Firewall Plugin with its Port Redirection feature.

These applications will NOT run:

- Programs not running TCP or UDP protocol (except ping/tracerte) - Will run on the InJoy computer though.

o NAT, General Information:

With InJoy's NAT your LAN has only one IP address. In other words, to other machines on the Internet your entire LAN appears as if it is only one machine. Consequently, when a user on your LAN sends data through InJoy to the Internet, each data packet's IP address must

be changed from the individual user's LAN address to the single address 'seen' by the Internet. Similarly, incoming packets are changed so they can be routed to the appropriate user on your LAN.

These actions are highly dependant on the source and destination port number information in the TCP or UDP protocol. Port numbers are changed before going to the net and again when IP packets come back from the net, the same port numbers are examined to find the matching IP address.

This process is a bit complicated, but luckily not very CPU/RAM consuming and as a user you should see nothing but a well functioning Internet connection.

In addition to the setup tips that follow, several different thoughts on setting up NAT are presented in the file FAQ.TXT. Try them all to find the one that works best for you. Check our Web site ([www.fx.dk](http://www.fx.dk)) for more information, and, if you run into setup problems be sure to consult with the experts on the InJoy Mail List.

o NAT options screen:

Firewall Options

Network Address Translation (NAT)

Network Address Translation

Disable NAT for InJoy PC

Disable NAT Ping support

Identd Proxy

Translation port offset: 60000

Firewall

InJoy Firewall Plugin

IPSec Support

Firewall directory: .\firewall

Network Address Translation (NAT) gives LAN clients access to the Internet through InJoy. Your network must be configured to support this - please refer to the appropriate section in your InJoy documentation. NAT is similar in functionality to IP Masquerading.

Ok Cancel

The above screen defines the few options available for NAT.

o Disable NAT for InJoy PC

If you run tricky protocols that can't be translated or maybe even servers on your InJoy PC, then you should choose not to translate the InJoy PC and then use that PC for such purposes. The InJoy PC will then have transparent access to the Internet, just as if NAT wasn't enabled at all.

Read the comment on the screen layout.

o Identd Proxy

Identd is an authentication server (protocol) used to authenticate IRC clients. Standard NAT does NOT provide for incoming identd requests to pass through the gateway, so to allow authentication of internal IRC clients an ident daemon must be started (on the Gateway PC). InJoy includes such an identd, capable of acting as a proxy for the other PCs on your private LAN.

Enable this flag to have the built-in identd automatically started. With the identd daemon running, incoming identd requests are first

received by the built-in daemon and then forwarded to the appropriate LAN client. Notice, a possible identd (built into most IRC clients) running on your LAN client STILL gets to do the real authentication.

There can be only one identd daemon running on a single PC, so if you use our built-in identd, then you can't run another identd on the gateway PC. This means that our identd daemon must be fully capable of authenticating IRC clients running on the gateway PC and to provide this feature, you have the possibility to specify the 'UserID' to be used in this case.

The UserID for the InJoy PC itself can be specified through the "USER" environment variable and when not specified, the default of "os2user" will be used.

o Translation port offset

Specifies the offset used when translating the source ports of the TCP/IP packets. InJoy has to change these port numbers to be able to recognize reply packets and send them in the right direction.

Normally, port numbers are in the range 0-5000 depending on the time since last boot. Translating these port numbers to a higher value in order to avoid conflict when not translating the InJoy PC is a MUST.

Much more information is available in the FAQ, and here is a quick check list about what to remember when setting it up:

o Make sure your LAN clients have good nameserver references. Your ISP nameserver must be referenced in order for your LAN clients to be able to resolve symbolic host names!

o Make sure your LAN clients default route to the InJoy computer. This way InJoy gets packets not destined for your own network and can process them for the Internet.

o- The InJoy Mail List is full of bright folks that knows a lot about how to make different setups work!

o- You might be required to turn on IP forwarding for the TCP/IP stack. This can be done by running 'ipgate on' at system start up or by setting the appropriate check box under route set up in the OS/2 TCP/IP configuration.

o InJoy Firewall Plugin

Please refer to the FIREWALL.TXT document and the on-screen guidelines.

o IPSec Support

IPSec (Internet Protocol Security) is an Internet standard for interconnected, secure networking devices and the predominant technology in Virtual Private Networks (VPNs).

Please refer to the IPSec documentation for more information.

=====  
D I A L O N D E M A N D  
=====Disconnect Actions=====

Dial on Demand (DOD) allows for automatic dialing when an application on your machine or a NAT LAN client needs it; auto-disconnecting when the connection is idle (using the idle timeout feature); and, auto-dialing again, at the next need/demand. This powerful connection charge saving feature is only available in the InJoy "Extended Client", "SOHO Client"

5.18

and the "Professional Enterprise Server/Client" versions.

To enable dial on demand in its most basic form, enable the "Dial On Demand" option, accessed by clicking on "disconnect options" on the PPP/SLIP setup page.

```
[ Dial On Demand ]
[X] Dial On Demand (DOD)
    [X] Instant DOD
    [X] Display DOD monitor
    [X] DOD interface is def. route
Advanced DOD options:
DOD interface: 111.222.111.0
DOD netmask..: 255.255.255.0
```

o Instant DOD

Specifies how InJoy should handle DOD once you select a HOST.

If "Instant DOD" is enabled InJoy will proceed directly to the DOD state, where it waits for an outgoing packet before triggering an Internet connection.

If "Instant DOD" is disabled InJoy will immediately establish an Internet connection once you select a host. When you hang up, InJoy will proceed to the DOD state. In the DOD state, InJoy will wait for an outgoing packet before triggering a new Internet connection.

o Display DOD monitor

When DOD is active and waiting to be triggered, an on-screen indication can be shown. The 'graphical' CPS monitor is used as the visual tool, helping you not to leave this function unattended in a setup that could cost you money due to excessive calling.

o DOD interface is default route

This option helps you to specify which packets will trigger DOD.

If the 'DOD' interface is the default route, then any outgoing packet will trigger DOD dialing.

If the 'DOD' interface is NOT the default route, then only packets that are specifically routed to this interface will trigger DOD.

In the usual setup, it is recommended to let the DOD interface be the default route.

o DOD interface & netmask

For the sake of DOD, a 'DOD' interface is created on your TCP/IP stack. The characteristics of this interface controls which packets will trigger DOD.

The DOD interface is an advanced option that should only be changed if you know what you are doing. Otherwise stick with the default values.

o Automatic DOD killers

DOD is meant as a cost saving option and to keep it that way, InJoy will disable DOD if dialing fails.

Many people have wondered about this approach, but if you live in Europe or in other regions where you are charged per call, then you'll appreciate this implementation. Without InJoy's ability to kill DOD you could otherwise risk that InJoy would do repeated dialing as long as it is left unattended. The phone-bill will surprise you, but it won't amuse you.

Of course, if you live in a region that doesn't charge per call, then you would want DOD to be active at all times. You can do this, just refer to these options found within the InJoy Communication Setup:

```
o Redial/Reconnect
o [X] Redial
o   Attempts.....: 9999
o   Pause between.: 5 sec(s)
o
o [X] Reconnect at conn. loss
o
```

Only when all the dial attempts specified above have failed, will DOD be automatically disabled.

o Look 'n feel

In this section you can find a few hints that will prove useful when working with Dial on Demand.

First of all, if you have Dial on Demand enabled and you really don't want InJoy to dial until you again select a specific host, then turn it off using the F6 key.

To enable DOD for a host, you can use the function key F5 on the InJoy main screen. This requires the DOD to be enabled in the host settings.

In case you have "Instant DOD" enabled and yet wish to have an immediate connection, then use the key SHIFT-F5 to trigger an immediate dial.

Sometimes you will find it useful to go back and see what packet triggered DOD. You can do that. InJoy saves the offending packet to the file 'DOD.DMP'. This file maintains a format similar to that produced by the native OS/2 application IPTRACE. To get a nicely formatted dump of the DOD trigger packet, you must rename 'DOD.DMP' to 'IPTRACE.DMP' and then run IPFORMAT in the same directory.

In a disconnected state, you can monitor the status of dial on demand by looking at the CPS meter in the bottom of the screen. A red bar will visualize the packet scanning activity, assuming that you have the "Display DOD indicator" option turned on.

```
=====
H O S T   T R I G G E R E D   A C T I O N S
=====Distant Command=====
```

Host Triggered Actions allows you to setup InJoy to monitor the COM port and react to a secret "trigger string" passed from the LAN server, ISP, or your laptop (while on the road).

So far, client actions are restricted to reboot and/or redial the current host. Registered users are invited to make their needs known.

Access the setup (shown below) by clicking on [...Disconnect actions] on the PPP or SLIP setup page:

```
[ Server triggered dialing ]
[X] Monitor COM port           Actions
   Trigger string.: RING       [X] Call this host
   Delay.....: 5 msec.        [ ] Boot computer
```

COM port monitoring requires the port to left open at all times. To do

that, click on the [Misc. opt.] button on InJoy's face, then on the [ General options ] button and click to put an X in the "COM port always open?" check box under the [ "More... ] heading.

Easy. Now, just pass the secret trigger string through the COM port and enjoy InJoy.

Additionally, you may place the single word RING in the Trigger string block and InJoy will respond to your phone call. (Of course, it will also respond to ALL phone calls--so be system security conscious as you engage this feature.)

=====

S C R I P T   S E T U P

=====

=====Simple and Effective=====

Prepared scripts take all the pain out of logging on your ISP's server by completely automating the entire process. Therefore, we tried to make script setup as simple as possible, but here are a few items which are nice to know.

First, if your ISP has either PAP or CHAP you will probably NOT need a script. So, check out that option FIRST. Just make sure PAP and CHAP are enabled on the PPP setup page and try a connection while the "Automatically learn script" check box is empty. If your UserID and password is accepted automatically and a connection is negotiated, you can skip this whole section. :-)

And, if the first attempt fails, you still might be able to log on without a script by turning off CHAP.

Script setup

Script filename: TestOne\_.scr

Learn options

- Automatically learn script
- Scan for IP addresses

Scripts will help you automating the host login process.

Automatically learned scripts normally just work, but in some situations they require a human touch.

Script execution options

- Autorun script when connected
- Autorun script at host select
- Don't run

Script delay: 250 millisc(s)

If your autogenerated script does not work, then edit the script-file by hand, synchronizing script and host login prompts. Remove non static 'prompts' from script.

Ok      Reset script      Cancel

Most of the options are self explanatory, let's look at what is not so obvious:

o Script file name

Naming your script is simple, just be sure that you do not have two hosts with the same name for the first 8 characters. That is not illegal, but when creating new hosts you might accidentally overwrite a needed script when InJoy automatically generates the new script

based on the first 8 characters of the host's configuration name.

The above fact makes deleting, resetting and creating a script just a bit tricky, so take care.

o Scan for IP addresses

Enable this option if you are running SLIP and need to grab the IP addresses from the text sent to you by the server.

The "Scan for IP addresses" is only used in connection with script learning. Found IP addresses are presented to you upon script learn completion and at that time you have to link the IP addresses found to match the "Your IP address" and "Gateway IP address" fields.

InJoy will insert two lines in the bottom of your script like shown below. One of them to find and identify "Your IP address" and one to identify "Gateway IP address".

```
RX: Welcome to SLIPNET
TX: \r
RX: Login:
TX: 200000000000\r
RX: Password:
TX: cataftermouse\r
RX: Interface going up!\r\n
GY: Your IP address is: [$YOUR_IP]
GD: My IP address is: [$DEST_IP]
```

Be sure that your script is waiting for data to arrive after the IP addresses. This gives InJoy a chance to scan the data received for the script, and is done in the above by the line:

```
RX: Interface going up!\r\n
```

It works because IP addresses are sent before the interface is reported as "going up", giving InJoy a chance to search the script input buffer for IP addresses.

o Script delay

Script delay is a timer which sets how long InJoy waits between the execution of each line in the script.

Normally, since scripts wait for prompts after having sent something it is not dangerous to set this value very low (even below the 200 in the "default" host) but, sometimes a critical timing situation may occur causing the modem to hang. In some cases the modem is no longer capable of even responding with an "OK" to an AT command. In other cases the modem is not able to handle AT commands in a very fast sequence even though it has answered back with an "OK".

The bottom line is that 250 should work; less than that will improve performance IF hardware on both ends can support it; and, two seconds should give even the oldest (and slowest) hardware ample time to get the job done.

Notice that this value must be specified in milliseconds. (1000 milliseconds equals one second!)

```
=====
S C R I P T   L A N G U A G E
=====Roll Your Own=====
```

The script language is very simple and it includes the following commands:

TX: text to send  
 RX: text to expect  
 DE: milliseconds .. delay in milliseconds (1000 = 1 second)  
 PA: E71  
 PA: N81  
 GY: Here is your IP address: [YOUR\_IP]  
 GD: Here is the Gateway address: [DEST\_IP]  
 ID: Put up an interactive box, allowing input  
 IN: Put up an interactive box with default input, which allows input  
 PS: Put up an interactive box, allowing input (not echoed)

In order to specify Carriage Return and/or Line Feed in the scripts, you have to use the the following escape characters:

\r - indicates a Carriage Return (0x0D).  
 \n - indicates a Line Feed (0x0A).  
 \\ - indicates just a normal backslash.  
 \! - indicates the character Escape (0x1b).

Check this simple sample of an average script:

```

RX: login:
TX: [USERID]\r
RX: password:
TX: [PASSWORD]\r
  
```

Check out this example to see how the scripts can be used (full sample):

```

DE: 2000
TX: \r
RX: login:
TX: [USERID]\r
RX: password:
TX: [PASSWORD]\r
RX: annex
TX: ppp\r
RX: Enter todays dynamic secret:
ID: Enter the secret!!!           ; Will show a box allowing user
                                   ; input... "Enter the secret"
                                   ; will be the user prompt!

IN: StaticPart                   ; Will show a user input box
                                   ; with the "StaticPart" already
                                   ; entered on the input line.

RX: Enter top secret admin password:
PS:                               ; Will show a box allowing a
                                   ; password to be entered non-
                                   ; echoed.. Keeping the format
                                   ; "PS: " is mandatory. The e.exe
                                   ; will allow for having a space
                                   ; character as last character.

RX: Interface going up\r\n
GY: Your IP address is: [YOUR_IP] ; Grab the IP addresses from
GD: My IP address is: [DEST_IP]   ; screen
  
```

The first line of this script waits for 2000 milliseconds (which is 2 seconds) and then continues to wait for the prompt "login:".

Upon receipt of that prompt it sends the special InJoy meta variable that includes the user ID you specified under the host setup.

You should also notice that a similar meta variable for the password also exists.

It is perfectly legal to start the script using any command. It is also allowable to specify the same command several times in a row, i.e. You don't have to wait for something between each send, and you don't have to start the script by waiting for something.

If you have InJoy auto-generate a script for you, the script file is saved when you press ESC to enter PPP packet mode.

You can modify the saved file, if you need to, using a text editor. For example you may wish to streamline the script which InJoy automatically created for you.

Some hosts require you to log in using 7 databits and EVEN parity (e.g. Compuserve). For that purpose you can use the 'PA: E71' directly in your script. To go back to 8 bit no parity use the 'PA: N81' verb.

=====  
S A V I N G H O S T I N F O  
=====Default or Not?=====

After filling in all host information, you are returned to the SLIP/PPP setup screen where you may 'save host' or 'save as default'.

Clicking on 'save host' will cause the information entered in the various setup screens to be associated with the host name you selected as a first step.

'Save as default' does much more. It overwrites the information in the 'default host' as it existed when InJoy was distributed. Therefore, you may wish to initially use 'save host' until you have a proven workable setup.

Then, when you are ready to experiment with tweaking the various setting to improve performance, you may want to to save a new setup you created as the 'default host'. Then, each newly created host begins with proven characteristics (and your password/ID/etc) and you only need change potential performance enhancing fields.

=====  
D I A L I N G  
=====How InJoy Dials, and Why=====

InJoy was designed for two kinds of dialing. The easiest dialing mode is, of course to let InJoy do the dialing and let a script do all the log in process.

o InJoy dialing

If you enable InJoy dialing (enabling "Let InJoy make the call" on the Communications setup page--refer to communication setup), InJoy will initialize the modem and then dial your host's number. To do that InJoy uses a special script with the following cycle:

- Try to initialize modem using initialization string 1 (if available)
- Wait for a maximum # of seconds as specified by dial timeout.
  
- Try to initialize modem using initialization string 2 (if available)
- Wait for a maximum # of seconds as specified by dial timeout.
  
- Try to dial the number (using primary phone number and dial prefix)
- Wait for a maximum # of seconds as specified by dial timeout for any of these responses: CONNECT, ERROR, NO DIAL TONE, NO CARRIER, NO ANSWER, BUSY, FAIL, or OK.

These are the basics of the connect script, but InJoy also supports redialing, re-connecting and auto-dialing. And, how do those features add on to the basic capability?

Well, regarding re-connect and auto-connect jump to the section

describing the general dialing facilities (below).

Redialing however functions together with the above script.

If dialing results in anything other than a CONNECT, InJoy checks the redial flag (found under communication setup) and proceeds with the selected phone numbers in the phone number list.

The modem is reset in between each redial attempt.

As dialing and scripting is somewhat connected, you will find that the timer found on the script setup page is also used for dialing. This timer specifies for how long InJoy will wait between executing each line of a script. In general it should not be dangerous in any way to have this timer set very low, as the scripts normally waits for something (e.g. an OK response from the modem) before continuing.

#### o Terminal Mode dialing

Doing your call using Terminal mode is very simple. As with any other program providing a Terminal Mode, you issue AT commands directly to the modem.

When InJoy detects a connection, it will pop up a small window notifying you that you can press ESC to start PPP packet mode.

As with InJoy dialing, you can store the commands you give in a script, but the difference is that while using Terminal Mode you would normally like your script to execute at the point of host selection (refer to script setup to see how that is done).

If you do not want to edit an auto-learned script, or if you want to overwrite a previous script, you can use ALT-L to start the auto-learning of a new script. When auto-learning a script, follow the instructions on the screen.

If you plan to use a NULL-MODEM for connection to a host, you will find Terminal Mode to be very useful as well.

#### o General for both types of dialing methods

Regardless of how you choose to dial you have the possibility of combining your dialing with the re-connect and auto-connect functions.

Re-connect hasn't got much to do with the dialing itself, it simply re-SELECTS your active host right after being disconnected (in an unprovoked manner, such as carrier drop, ISP dead, etc, etc).

Auto-dial hasn't got much to do with dialing either. It simply means that a special host should be auto-selected at start-up

When using either type of dialing, if InJoy is unable to open the port (for instance if the modem is in use by a fax or other comm program) it will return the message "Port open fail, retrying in 5 secs..." When the other program releases the modem, InJoy will dial.

Also, remember to check the latest InJoy FAQ for questions regarding dialing!

```
=====
CONNECT.TXT
=====Your IP Address, Instantly=====
```

When InJoy has established a successful connection, it immediately creates a file named CONNECT.TXT

This file includes characteristics about your current connection. The

following is an example of the contents of a typical CONNECT.TXT file:

-----QUOTE-----

194.234.160.52  
194.234.160.8  
Host.....: IBM Advantis  
Modem connect.: CONNECT 57600  
Line speed....: 57600 bps

This file reflects the current/latest InJoy Internet connection information.

YOUR IP address and the GATEWAY IP address makes up the first two lines.

-----END QUOTE-----

CONNECT.TXT is not a semaphore file, so don't use it to determine if you are connected at any moment. Other means are available for verifying the connection at any instant . . . if you need to do so, do a text search for semaphore in the included FAQ.TXT file.

=====  
H A N G I N G   U P  
=====Several Ways to Say Good-bye=====

Normally, you should disconnect InJoy with either of these two ways:

- o Click on the [Hang Up] button (or key ALT-H,) will drop DTR on the modem and thereby force a carrier drop. However, if you have disconnect troubles using this procedure, the following could be a problem solver for you:
- o You can provoke a "graceful" PPP log off by pressing ALT-T (T to Terminate the session). Using the graceful logoff at any hangup attempt is also a toggle in the general setup.

When necessary InJoy may also be forced to break the connection by running KillJoy (see below for more details) or by pressing CTRL-BREAK.

After hanging up (with any of those methods), InJoy updates the connection log for the appropriate host. Even if terminating by using KillJoy (see below) or CTRL-BREAK, you should still get an entry in the connection log!

=====  
T R A C I N G  
=====Capturing Tech Data=====

To trace and monitor line activity, use the trace function. To setup tracing click on the [Misc. opt] button on InJoy's opening screen, then click on the [Trace configuration] button, to reveal this screen:

```

+-----+
| Trace setup |
+-----+
| [X] Trace ON/OFF |
| |
| Trace: _____ | Output to: _____ |
| [X] Important info | [X] Trace file (IN-JOY.TRC) |
+-----+

```

<input type="checkbox"/> Trace communication line	<input checked="" type="checkbox"/> InJoy output window
<input checked="" type="checkbox"/> Trace PPP negotiation	
<input checked="" type="checkbox"/> Trace errors	
<input type="checkbox"/> Debug information	IPtrace support:
<input type="checkbox"/> Trace buffers	<input checked="" type="checkbox"/> Outgoing packets in IPTRACE
<input type="checkbox"/> Ticker	<input checked="" type="checkbox"/> Incoming packets in IPTRACE

Save
Reset
Cancel

Use this as a quick way to turn on/off tracing

Trace typically captures what you see in the output screen of InJoy to a file named IN-JOY.TRC. Careful: Too much tracing will slow down InJoy considerably, and too little could keep important information from reaching your sharp eye!

Removing the X in the "InJoy output window" check box allows trace data to be captured to file without the time/resource penalty of sending the same data to the screen.

When running in a stable environment, it is recommended to turn ON only "Trace PPP negotiation" and "Trace errors" . . . at the most. For some users, even that will be an unneeded speed drain (however slight).

The trace file is sometimes indispensable in solving problems reported to the Mail List, Support Center or program author. However, due to the sometimes LARGE trace files, please do not send them until asked for.

IPTRACE.EXE (included with OS/2) can be used to save a trace file of both in and outgoing packets. You can use IPFORMAT.EXE (also a Warp utility) to format and display that trace file.

Note: The [Reset] button deletes the trace file!

```
=====
C O N N E C T I O N   L O G
=====Capturing Connection Data=====
```

The connection log saves information on the connections you have had and how long they lasted.

Control and view the connection log by clicking on on the [Misc. opt] button on InJoy's opening screen, then click on the [Connection log] button. Finally, select the host whose log you wish to view and you will see the date, connection start and end time, whole number of minutes connected, total amount of seconds connected and in the last column the connection time in HHH:MM:SS notation.

Connection logging monitor							
[ Hosts ]	[ Date	Start	End	Mins	Secs	Time]	
Default	20.12.1996	04:36:28	04:36:34	0	6	000:00:06	▲
TestOne	20.12.1996	04:36:38	04:42:28	5	350	000:05:50	■
	21.12.1996	15:02:05	02:23:44	681	40898	011:21:38	■
	21.12.1996	11:02:37	15:43:25	280	16847	004:40:47	■
	21.12.1996	18:55:12	19:05:39	10	627	000:10:27	■
	21.12.1996	19:09:46	23:42:18	272	16352	004:32:32	■
	22.12.1996	00:25:46	03:47:30	201	12103	003:21:43	■

22.12.1996	03:48:18	03:49:22	1	63	000:01:03
22.12.1996	03:50:15	03:51:26	1	71	000:01:11
22.12.1996	03:51:38	03:51:50	0	12	000:00:12
22.12.1996	13:03:58	13:32:58	29	1740	000:29:00

Connections overall 61\* connections this month 61\* connections today 5

Connects overall: 052:27:40 3147mins    Longest connect: 011:21:38 681min  
 this month.: 052:27:40 3147mins    this month: 011:21:38 681min  
 today.....: 003:53:09 233mins    today.....: 003:21:43 201min

Ok    Monthly Summary    Reset    Cancel

InJoy will sum up the monthly connection time, when you click on the [Monthly Summary] button. Below you can see how each month for the selected host is displayed, with connection statistics.

[ Hosts ]	[ Date	Start	End	Mins	Secs	Time]
Default	Oct 1996	void	void	81	4874	001:21:14
TestOne	Nov 1996	void	void	1793	107605	029:53:25
	Dec 1996	void	void	69	4185	001:09:45

To reset the connection log for the selected host, simply click on the [Reset] button. Note: The [Reset] button deletes the log file. If you need to save the data for any purpose (for example, business expense records) you must archive prior to using InJoy's reset feature.

At the bottom of the connection log screen the following is displayed:

Connections overall 61 \* connections this month 61 \* connections today 5

Followed by statistics showing the overall connect time, connect time this current month and connect time for the current day. The statistics conclude by presenting you the longest connections overall, for this month and today.

Connects overall: 052:27:40 3147mins    Longest connect: 011:21:38 681mins  
 this month.: 052:27:40 3147mins    this month: 011:21:38 681mins  
 today.....: 003:53:09 233mins    today.....: 003:21:43 201mins

The displayed connection log can be viewed as a file. It exists in InJoy's directory with the pattern XXX.LOG, where XXX will be some variation on a host name.

=====

TEXTMODE TICKER

=====

=====-Ticking=====

Setup the Textmode Ticker by clicking on on the [Misc. opt] button on

InJoy's opening screen and then click on the [Textmode Ticker] button. During a live connection the tickers may be turned off by pressing the F8 key, or turned on with the F7 key.

The InJoy Textmode Info Ticker operates as a low priority, background function that (if enabled) connects to the InJoy server to retrieve and display the information you request.

At this time the requested information may be either commercials or announcements, or both.

See the screen below to get an impression the configuration options:

```
Ticker setup
[X] Enable/disable ticker      What is the InJoy ticker???
[X] Commercials                On this screen you select
[X] Announcements             whether InJoy should connect
                               to the IJ-center or not!

Seconds between fetching: 5    The IJ center will reply by
                               giving you the selected kind
Commercial server: 198.64.226.104 of information. Receiving will
                               run low priority in the back-
                               ground and use only very little
                               CPU and bandwidth.
                               *** IMPORTANT ***
                               This line activity will put the
                               idle timeout out of the game!

Save      Cancel
```

The 'commercial server' is the IP address of the server giving the commercials. You cannot use any server that comes to mind, but only the ones provided by the InJoy team. The default choice is probably the best, and as this writing, the only choice.)

There are a few things to be considered when enabling the ticker: First, since information is constantly flowing into your machine, the idle timeout will never reach zero. And, second: You might not receive any ticker information, at all.

The idle timer monitors the line activity and you will not get a idle line timeout as long as the ticker fetches. Of course you could make the 'ticker fetch interval' bigger than the idle timeout.

As the speed of your connection or InJoy server may vary, I cannot guarantee you any ticker info at all. Also, the ticker info is requested at each fetch interval, but it might show up a lot later.

And finally. The 'InJoy Info Ticker Server' is NOT a server that will register your name and license number or anything else. Neither will InJoy scan your hard disk for pirate software or anything similar :-)

```
=====
GENERAL SETUP
=====InJoy is So Flexible=====
```

The general setup screen includes options for the general behavior of InJoy. Access it by clicking on the [Misc. opt] button on InJoy's opening screen, then click on the [General options] button.

<p>[ Confirm ]</p> <p><input checked="" type="checkbox"/> Exit (when connected)?</p> <p><input checked="" type="checkbox"/> Exit (when NOT connected)?</p> <p><input checked="" type="checkbox"/> Hangup?</p> <p><input checked="" type="checkbox"/> Deleting scripts?</p> <p><input checked="" type="checkbox"/> Deleting hosts?</p> <p><input checked="" type="checkbox"/> Deleting autostarted programs</p>	<p>[ CPS monitor ]</p> <p><input checked="" type="checkbox"/> Average CPS based on data sent</p> <p><input checked="" type="checkbox"/> Average CPS based on data recv</p> <p><input checked="" type="checkbox"/> Idle sensitivity?</p> <p><input checked="" type="checkbox"/> Smart notation?</p> <p><input checked="" type="checkbox"/> CPS values in the connect log?</p>
<p>[ Miscellaneous ]</p> <p><input checked="" type="checkbox"/> Show about box at startup?</p> <p><input checked="" type="checkbox"/> Allow 0.0.0.0 as GWY IP addr.</p> <p><input checked="" type="checkbox"/> Disable timeout warning</p> <p><input checked="" type="checkbox"/> Disable TIMER warning</p> <p><input checked="" type="checkbox"/> Primary interface (hostid)</p>	<p>[ More... ]</p> <p><input checked="" type="checkbox"/> Disable all tunes?</p> <p><input checked="" type="checkbox"/> Error box at hangup fail?</p> <p><input checked="" type="checkbox"/> COM port always open?</p> <p><input checked="" type="checkbox"/> COM port exclusive open?</p> <p><input checked="" type="checkbox"/> Send Term. Req. at hangup?</p>
<p>Ok                      Cancel</p>	

o Confirmation options

Flag the options to specify what actions you would like to confirm before being performed by InJoy.

Notice that regarding InJoy exit, the confirmation option here only has effect if you actually selected the [Exit] button, i.e not by pressing the ESC button!

o Miscellaneous

- Show about box at start-up

With the 'Show about box at startup' option you can select whether the about box with register and contact information should be shown at start-up.

Selecting InJoy to automatically connect at start-up will over ride the use of this flag.

- Allow 0.0.0.0 as gateway IP address.

If enabled, will allow your ISP to the use of 0.0.0.0 as a gateway address.

In general this use is incorrect. But with certain implementations of SLiRP (refer to other sources for information about SLiRP) this actually works.

If your ISP uses SLiRP and maybe runs the server called "TIA", then you should check this option.

- Disable timeout/timer warning

Disabling the timeout and/or timer warnings will make sure that you are not disturbed with warnings in a scenario where you'd rather not see them. Use of Dial On Demand is a situation where timeout warnings can be a pain. Turning off the warnings silences warning sounds as well.

- Primary interface (hostid)

Hostid allows you to change the Primary IP Address of the system. Should be enabled in multi-homed environments!

Also, check your OS/2 TCP/IP documentation for the hostid command.

o CPS monitor

- Average CPS based on data sent?

Should outgoing data be included in the average CPS calculation?  
If yes, enable this option.

- Average CPS based on data received?

Should incoming data be included in the average CPS calculation?  
If yes, enable this option.

- Idle sensitivity?

Should line idle seconds have influence on the average CPS calculation? If yes, enable this option.

- Smart notation?

Will go from CPS (Characters Per Second) to thousands of CPS when number of characters go beyond 1K, and InJoy will continue to show MEGA CPS when number of bytes is above 1000K.

- CPS values in the connect log?

Select this option to have the CPS statistics saved in the connection log for later viewing.

o More . . .

- Disable all tunes?

Checking this option kills all sounds during timeout warnings.

- Error box at hang-up fail?

Enable this toggle to get an error-box if InJoy fails to hang-up the the connection. If you experience that all the time, then it might be a good idea to turn of the warning.

Leased line will normally uses modems that keep the DCD high at all times. This means that InJoy will never be able to hang up such a line and that will give warnings when trying. Turning off the warning will help you avoid getting these warnings, stressing again, that InJoy is the perfect choice for almost any communication setup.

- COM port always open?

If using Host Triggered Actions you must leave the COM port open (place an X in the box) in order to receive the trigger string.

- COM port exclusive open?

A COM port may be shared, like a file, but not if it is opened in exclusive mode.

- Send Termination Request at hangup

Prior to hanging up (by dropping DTR), InJoy can send a PPP protocol block to let the other end know of our intention to hang up. Using this approach is recommended.

=====  
A U T O S T A R T I N G   M O D U L E S  
=====Start and/or Stop=====

Auto-starting automatically starts or shutdowns applications, REXX

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scripts or batch files at any of these times: InJoy startup/exit, dial, connection established/disconnected, or pressing F9/F10 keys.

NOTE: You may setup InJoy to autostart in two different ways by using the setup screens in two different places in InJoy. Settings accessed through the [Misc. opt.] button on the startup/operating screen operate with ALL hosts. Settings placed in the dialog accessed by clicking on the [ Autostart per host ] button on the Host setup page will operate only with THAT host.

The following screen shot and instructions apply to autostarting either globally or for one host . . . so carefully choose WHERE you enter the setup dialog.

Autostarting modules

Path and filename

Parameters

Working directory

Start Stop

at at

- my command

- InJoy startup

- dial (before)

- host connect

- discon.(before)

- discon.(after)

- InJoy exit

[ Autostart list ]

E:\download\ncFTP\ncFTP.cmd

C:\TCP\BIN\NISTIME.EXE

Other program specific options

Start minimized

Don't start

Start only once

General autostart options

SetJoy wait (caution)

Disable ALL autostarting

Path, file name, parameters and working directory must be set up as with any other program object in OS/2.

NOTE: An unnecessary trailing back slash in the working directory line can cause problems. For example, if you use D:\SOUTHSE\PMMAIL\ instead of the correct D:\SOUTHSE\PMMAIL you will find that PMMail will not startup correctly.

The check boxes in the bottom half of the screen allow you to start or stop the applications listed in the 'Autostart list' in many different ways.

Most settings and uses are self-explanatory or fully covered by the on screen 'hints'. A few things that may need additional information are:

- If you do not need to start a listed program for some time, you don't have to delete it, just mark the "Don't start" check box.
- Starting programs minimized does NOT work for PM applications. This is an OS/2 limitation.
- For InJoy to be able to stop an auto-started program at any time, it must be able to stop it at InJoy's close. Therefore, to select program closure at my command, dial, connect OR disconnect the 'Stop at InJoy exit' block must be checked. For example: To auto-stop a program at host connect, you must place an X in BOTH the 'Stop at host connect' AND 'Stop at InJoy exit' blocks.

- To change the settings of any single application you MUST press the [ Update-> ] button while the desired parameters are displayed for THAT item, prior to pressing the Ok button to close the dialog.

Use CAUTION when setting up a program to autostart with 'SetJoy wait'. 'SetJoy wait' causes InJoy to PAUSE until it receives a SetJoy proceed signal. Use this feature AT YOUR OWN RISK, incorrect set up may cause a connection to continue long after it should have ended.

However risky it might be, it is also a powerful and useful feature -- when used correctly: 'SetJoy wait' should ONLY be enabled when you want to autostart a program, REXX script or batch file and have InJoy NOT continue and dial, or disconnect until allowed by running SETJOY.EXE with the /C switch. You may run the program from a command prompt, batch file or REXX script in this format:

```
setjoy.exe /C
```

```
=====
C O M M A N D   L I N E   O P T I O N S
=====
```

```
=====Customized Starts=====
```

To avoid creation of the default route when connecting InJoy, you will find the /D parameter useful - as below.

```
in-joy /D
```

You may launch InJoy and cause it to dial any predefined host simply by using that host's name as a command line argument. For example:

```
in-joy.exe HostName
```

NOTE: The host name used IS case sensitive. You must enter it exactly as recorded in InJoy's [ Host ] listing.

Tip: You can use this technique in host objects and have several hosts you can 'click' to life.

```
=====
K E Y B O A R D   S H O R T C U T S
=====
```

```
=====Busy Hands=====
```

The following keyboard shortcuts are available

```
ALT-E Reset timer
ALT-Q Quit script learning - do NOT save this learning session
ALT-L Learn script Start/Stop - SAVE learned script
ALT-T Terminate the connection, gracefully
ALT-R Reset idle timeout (time line allowed to remain idle)
```

```
F5      Turn Dial on Demand On
F6      Turn Dial on Demand Off
F9      Start Programs (as selected in Autostart dialog)
F10     Stop Programs
```

```
SHIFT-F5 Immediately cause Dial On Demand to dial
SHIFT-F8 Display filter usage (statistics)
SHIFT-F9 Dump NAT table of clients
SHIFT-F10 Registration Screen
```

```
=====
S E T J O Y
=====
```

```
=====Connected Changes=====
```

SetJoy is a utility to change InJoy's operating characteristics while InJoy is loaded and running. SetJoy is used during specific autostart options to control shutdown timing (see "Auto-starting modules" section of this document for details). Additionally, SetJoy may be used to set the idle timeout and timer or force a disconnect.

SetJoy MUST be executed in the same directory as InJoy's executable (IN-JOY.EXE). That means if you are running SETJOY.EXE from a script or .CMD file the script MUST CD to the InJoy directory prior to calling or running SETJOY.EXE.

More options will be added as the popular needs of our registered users are identified. Make your wishes known on the InJoy Mail List (See README.TXT for sign up details).

USAGE: SETJOY [<option>]

Where <option> is:

/H, /h or /? - Display help

/C - for use with specific auto-starting options, see details in the 'Auto-starting modules' section of this document.

/D - Disconnect the current connection, immediately

/O:<host name> - Changes, and saves the /T or /I setting for the named host. NOTE: The /O option (when used) must precede /T and /I

/O:\* - modify every host and save the setting (default)

/O:# - modify the current host, and NOT save the change

/T:nnn (or t) - Set the Idle Timeout from 0 to 999 seconds

/I:nnn (or i) - Set the Timer from 0 to 999 minutes

/P:passwd. - Set the Password of host (use with /O param)

/U:userid. - Set the Userid of host (use with /O param)

/CONNECT - Connect InJoy (use with /O to cause a dial)

NOTE: Setting zero for either the Idle Timeout or Timer turns that feature off.

EXAMPLES:

```
setjoy /O:* /T:999
```

Sets and saves Idle Timeout of all host to 999 seconds

```
setjoy /I:120
```

Sets and saves Timer of all host to 120 minutes

```
setjoy /O:# /T:90
```

Sets the current active host's Idle Timeout to 90 seconds, for this session only.

```
setjoy /O:"TeleDK account" /T:30
```

Set and save the Idle Timeout of the host named <TeleDK account> to 30 seconds. NOTE the " around host names which include spaces.

```
setjoy /O:Vestnet /I:0 /T:0
```

Turn off the Timer and Idle Timeout for the host named

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<Vestnet>, and save those settings.

```
setjoy /O:Default /P:secret /U:me /CONNECT
  Causes InJoy to dial and connect to the <Default> host
  passing a user ID of "me" and a password of "secret"
```

```
=====
K I L L J O Y
```

```
=====The Ultimate Ending=====
```

KillJoy is a small utility program that will allow you to kill InJoy from the command line.

KILLJOY.EXE may be run without parameters causing InJoy to die instantly (and thereby drop the possible modem connection.)

or

It can be run with the '-' parameter which causes it kill InJoy as soon as the modem connection is gone.

Refer to the disconnect actions for other means to disconnect InJoy.

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USERGUID.DOC  
InJoy Release 1.1  
May 30, 1997

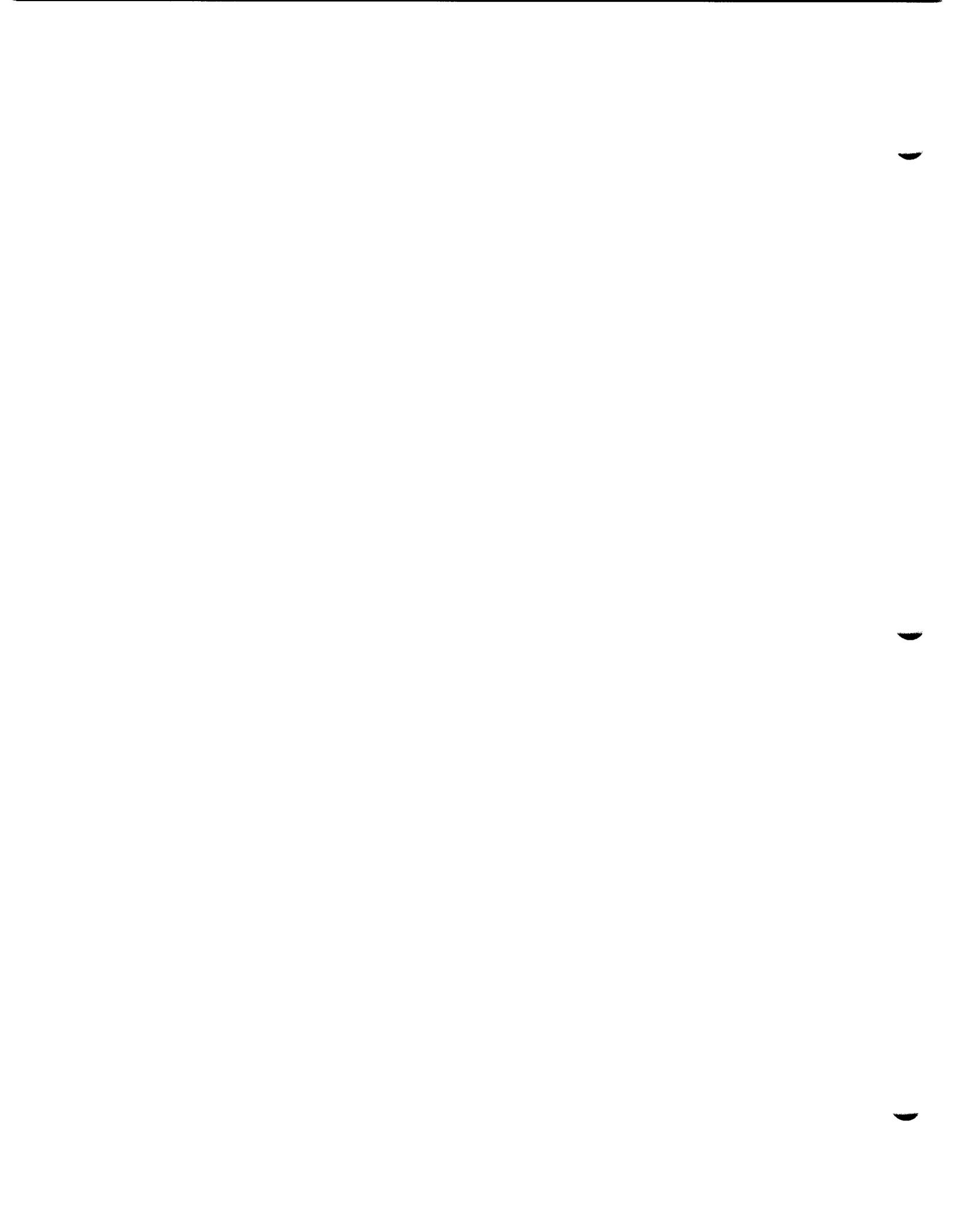
INJOY

The Best Way To The Internet

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DOC 6

6.1-641



=====  
C O N T E N T S  
=====

=====  
What's Where  
=====

- o Starting InJoy.....A Few Tips
- o Entering the key code.....To Unlock InJoy's Power
- o InJoy screen layout.....A Familiarization
- o Online hints.....InJoy's Efficient Help System
- o Creating a host.....A First Step To Connecting
- o Host setup.....Who You Call
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- o PPP/SLIP options.....Tune For Speed
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- o Dial On Demand (DOD).....Disconnect Actions
- o Host Triggered Actions.....Distant Command
- o Scrit setup.....Simple and Effective
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- o CONNECT.TXT.....Your IP Address, Instantly
- o Hanging up.....Several Ways to Say Goodbye
- o Tracing.....Capturing Tech Data
- o Connection log.....Capturing Connection Data
- o Textmode Ticker.....Old but Still Ticking
- o Graphical Ticker.....A Pretty Face, and Brains
- o General setup.....InJoy is So Flexible
- o Auto-starting modules.....Start and/or Stop
- o Command Line Options.....Customized Starts
- o Keyboard Shortcuts.....Busy Hands
- o SetJoy.....Connected Changes
- o Killoy.....The Ultimate Ending

=====  
S T A R T I N G I N J O Y  
=====

=====  
A Few Tips  
=====

- o Start InJoy like any other OS/2 program, either by making an icon referencing IN-JOY.EXE, or by running InJoy directly from the command line.
- o Running InJoy in full screen may cause problems on some systems. While InJoy runs well in full screen on most systems, it has proven most stable in an OS/2 (VIO) window. This full screen problem has

been reported by only a few people:

- o If COM 2 is not available on your system, InJoy will report "Could not open device" when starting the FIRST time. Simply click on OK to proceed with initialization. Then, during setup (see below) you must specify the correct COM port in InJoy's "default" host.

```
=====
ENTERING THE KEY CODE
=====To Unlock InJoy's Power=====
```

After your registration has been processed you will receive a key code to unlock InJoy's power, at the level purchased. To unlock:

- o Open InJoy.
- o While on the opening screen press SHIFT-F10.
- o Enter your name and your key code with care. BOTH your name and key code is case sensitive and must be entered EXACTLY as provided.
- o When both have been entered, and checked for accuracy, click on OK.

```
=====
INJOY SCREEN LAYOUT
=====A Familiarization=====
```

Refer to the following "screen shots", or just open InJoy and look at the real thing while learning about the six sections of InJoy's display:

- o Terminal Mode Window

Used during Terminal Mode operations and to display bytes received/transmitted while dialing, and when running a connect script.

- o Host List Window

Contains user defined hosts and all controls necessary to create, edit and remove host using the manipulation buttons [New], [Change] and [Delete]. For ease of use, the [Dial] button is immediately below the list of user configured hosts.

- o Output Window

Shows InJoy messages and trace information, if trace is enabled.

- o Other Control Buttons

Immediately below the Host List, and next to the Output Window, are additional buttons for the purpose of forcing a line drop [Hang Up], accessing/setting miscellaneous options [Misc. opt.] and for closing InJoy [Exit].

o Characters Per Second (CPS) Info Line and Bar Chart

Provides real-time data (from left to right, with displayed symbols) on:

- ▲ Total characters sent on communications line since connect
- ▼ Total characters received on comma line since connect
- ↑ Current CPS transmission rate, updated every second
- ↓ Current CPS receive rate, updated every second
- avg Average CPS processed during last second
- max Peak CPS processed during any second of current connection

The last two numbers (avg and max) are based on the sum of both transmitted and received characters. Notice that these numbers are what is actually sent and received, including PPP encapsulation characters. Additionally, the Info Line is calculated at a rather low priority within InJoy (keeping the pipe full is a lot higher on the food chain), therefore some of the 'every second' updates will occur during a rather long second.

Immediately to the right of the "max" data point is a display of the total CPS receive and transmit rate in a visual Bar Chart Line.

The check box on the right of the visual indicator will toggle the entire Info Line on or off. (Total throughput will increase slightly with the line turned off.)

When using InJoy with Dial On Demand (DOD) with the "display DOD indicator" option turned on, the CPS Bar Line displays the DOD packet scan. This is only the case when off-line, so that functionality will not conflict with the normal use of the CPS monitor.

o Status Line (at the bottom): Shows information about the current status of InJoy.

These section yield the following screen layout:

The screenshot shows a terminal window titled "InJoy - Best way to the Internet. (C) Copyright 1997 v1.1-Build May xx". The interface is divided into several sections:

- Terminal Mode:** A large empty rectangular area on the left.
- Host Selection:** A menu on the right with options: "Deault" (selected), "TestOne", "Dial", "New", "Change", and "Delete".
- Function Keys:** A row of options: "[ F9: Start programs | F10: Stop programs ]".
- Output Window:** A section below the function keys, currently empty.
- Line Usage Monitoring:** A horizontal bar at the bottom with a dotted pattern, labeled "Line usage monitoring.....".
- Additional Options:** A vertical list on the right side: "[ HangUp ]", "[ Misc. opt. ]", "[ Exit ]", and "[X]" at the bottom right.

=====

O N L I N E   H I N T S

=====

=====InJoy's Efficient Help System=====

Useful hints are available at the bottom of the InJoy screen when operating within following described setup screens. These online hints change as the various portions of the setup screens are highlighted for data entry, or toggling. Therefore, since the hints are context sensitive you will find them very useful in completing even the most complicated setup.

In fact, most people find that the hints are all that is needed to successfully complete all initial setup and performance tuning steps.

=====

R E A T I N G   A   H O S T

=====

-----A First Step to Connecting-----

To connect your computer or network to the Internet, you must start by defining a host. The host configuration constitutes the parameters and options needed to communicate successfully with your ISP (Internet Service Provider).

InJoy is shipped with a "default" host which cannot be deleted. You may modify to suit your needs, and you should set the "default" host to match the settings to use at InJoy start-up. For instance, most people modify the "default" host so that it has all the settings necessary to connect to their Internet Service Provider.

However, before overwriting the "default" consider this: Most people find that the "default" works as well as (and in many cases, much better than) competing dialers. Therefore, it is suggested that you replace the "default" only after you have another host with tested capability. Additional information on this subject is available in the section "Saving Host Info", below.

Please note that the settings contained in the "default" host are used in creating new and/or multiple hosts. Additional hosts are created by selecting the [New] button or pressing <Insert> while the Host List Window has the focus.

DO NOT PRESS ENTER AT THE END OF EACH LINE, WHEN FILLING IN VALUES.  
Doing so will place a space at the end of the line and InJoy will NOT

work.

```
=====
H O S T   S E T U P
=====Who You Call=====
```

- o When creating a new host, the first screen prompts you for a configuration name, user ID and password:

Host setup

Configuration name...  
TestOne

User ID....  
YourID

Password...  
\*\*\*\*\*

Protocol  
 PPP  
 SLIP

Ok      Autostart per host      Cancel

The configuration name you provide becomes the host name used by InJoy in the Host List Window to identify the set of parameters that defines one particular host. For example: If your Internet Service Provider is IBM you might want to use IBM as the host name. On the other hand, if you will use several IBM gateway telephone numbers (say for a portable computer), you might want to set up numerous host, each with a different city's name.

- o Fill in the User ID and Password fields with the values supplied by your ISP. Those are the values which will be used by log on scripts or PAP/CHAP authentication protocols.
- o After filling in those three items select the appropriate radio-button for either PPP or SLIP. Your ISP should be able to tell you which protocol is most likely to provide the best service. But, without other information available, you should probably attempt to connect first via PPP.

Refer to other sources for a description of the differences between PPP and SLIP.

```

=====
P P P / S L I P   S E T U P
=====Setup One or Bot=====

```

When you have gone through the fields of the previous host setup screen and selected to run either PPP or SLIP as framing protocol, you will see a screen like this:

```

      PPP setup
  IP address configuration
  Your IP address...: 0.0.0.0
  Dest. IP address.: 0.0.0.0
  Netmask.....: 255.255.255.0
  Domain nameserver
  Nameserver address: 123.456.78
  Backup nameserver.: 123.456.79
  Your host name....: what.ever
  Domain name.....: your.com

[ ] Use VJ Compression
[ ] Auto connect
[ ] IP Masquerading  [...Masuerading options]
Timeout.: 9000 secs.
Timer...: 9999 mins.  [...Disconnect actions]

  Save
  Save s default

  Comm setup  PPP options  Script setup  Cancel

```

NOTE: "Screen shots" in this text document are unable to accurately render those sections of the screen which are "grayed out" on the actual InJoy setup screen. For example: Both the "IP Masquerading" and "Masquerading options" in the above screen are "grayed out" in the distribution archive's Basic Version since those features are only available in the more advanced versions.

NOTE: The screens are nearly the same for PPP and SLIP. Each of the various items you need to fill in are explained below. Additionally, the differences between setting up for PPP or SLIP are explained, where necessary:

o Your IP address

This is the Internet Protocol (IP) address that your computer will use through your use of PPP. The server from the ISP server that InJoy should negotiate.

Obtaining the IP address from the server is the standard way of assigning IP addresses using PPP, but it is possible to specify an IP address when the server will not dynamically assign one.

For SLIP you should either use an IP address statically assigned

to you by your ISP or auto-grab it from the text stream transmitted by your server at connect.

o Dest. IP address

This is the IP address of the ISP's server. It is normally assigned by the PPP server during the log on sequence. However, some providers specify a fixed IP address that you should enter here.

For SLIP you should either use a static IP address assigned by the ISP, or auto-grab it from the text transmitted by your server during connect.

o Netmask

The netmask specifies the IP addresses which are supposed to go through your SLIP0/PPP0 interface. If you did not receive an assigned netmask from your ISP then leave it as set (25.255.255.0).

o Use J Compression

By enabling this option InJoy will try to negotiate the use of VJ (Van Jacobsen) compression. VJ compression takes some CPU cycles and it is therefore recommended for fast computers and/or a slow line. As a rule of thumb, if you are not running a 66 MHz or faster CPU, you probably won't realize any benefit from VJ compression.

VJ compression will save about 30 bytes per compressible PPP/SLIP packet.

o Auto connect

Marking this check box causes InJoy to attempt an auto-connect to this host during start-up.

Since InJoy can only attempt to connect with one host at a time, marking this block in one host automatically resets all other hosts to not attempt an auto-connect.

o IP Masquerading

Refer to the Masquerading section, below.

o Timeout

This is the "idle timeout". It specifies for how long the line may remain idle before disconnecting. The value is in minutes and seconds. The default is 99 minutes and 99 seconds.

If the timeout value is larger than 60 seconds a timeout warning (consisting of four beeps) will be sounded and the phrase "TIMEOUT: 1 min. to disconnect . . ." will appear in the Output Window.

You may reset the idle timeout by pressing ALT-R, in which case your connection will continue as if nothing happened.

A note of caution is advisable here. Some users (myself included) set the idle timeout to five minutes or so, and walk away from the computer after beginning a long download/upload . . . knowing that when finished InJoy will drop the connection, as the idle timer reaches

zero. Be careful, many hosts periodically sends dummy data on the line in order to avoid unintentional disconnects. Therefore, if you are paying for your connection by the minute (to either your ISP or telephone company) you might want to insure the line is dropped within

To completely disable the idle timeout, specify a value of zer. In that case, the line will never be dropped due to inactivity.

#### o Timer

This timer specifis how long InJoy may stay cnnected before it will automatically disconnect. Set any value from 0 to 9999 minutes.

This functionality is much like the one on your VCR or TV that enables you to automatically turn it off after half an hour or so, without worrying about the TV starting a fire during the night.

As it can go wrong for a television, so it can for InJoy too. If InJoy has a problem disconnecting there is nothing it can do except increase your phone bill (InJoy has never started a fire!).

Notice that if the timer value is set to more than one minute, you will hear/see a timer warning similar to that described for the idle timeout. And, you may reset this timer by pressing ALT-E.

To completely disable the timeout, specify a value of zero. In that case, the line will never be dropped for exceeding a preset time on line.

#### o Disconnect actions

Please refer to the "disconnect actions" sectio.

#### o Namesever & Backup nameserver address

The nameserver and backup nameserver are IP addresses of your preferred nameservers.

The nameserver addresses are put into the %etc%\RESOLV file. This file is referenced by the TCP/IP stack for nameserver lookup's.

You shouldmake sure that your ETC environment variable is set up correctly. Normally the ETC environment variable is set when you install OS/2 TCP/IP base kit and/or Internet Access Kit. However, to check, look in your CONFIG.SYS for a line like:

```
SET ETC=x:\tcpip\etc
```

Then look in that directory to make sure it contains a file named RESOLV (no extension).

Currently, InJoy will not preserve new or special options that might already existing the RESOLV file. This is being worked on and new functionality regarding this may be expected in future releases.

If you experience problems resolving host names (even though you feel your nameserver is set up correctly) check for the existence of a RESOLV2 file in your ETC directory. The RESOLV2 file is sometimes used (seems to depend on TCPIP stack version) on a LAN. Edit the

existing RESOLV2 file or simply copy your standard RESOLV file over RESOLV2 to either refresh or create the secondary RESOLV file.

InJoy does not automatically alter the contents of the RESOLV2 file.

o Yourhost name

The host name is a bit tricky. As set in your CONFIG.SYS file applies to ALL instances, except in programs auto-started by InJoy. Auto-started programs use the host name you place in this block.

So, if you need a special host name for some reason, set it up in the CONFIG.SYS using string similar to:

```
set HOSTNAME=your_host_name
```

Normally you can leave the host name field blank in InJoy, as it is for special needs.

o Domain name

This is the domain in which your computer exists on the Internet. You should specify the symbolic name that you have received from your ISP.

===== COMMUNICATION SETUP =====

=====Basic Stuff, Use the Online Hints=====

The communication setup screen enables you to specify the parameters required for your communication link:

Communication setup

Call control

Let InJoy make the call  
 Use Terminal Mode       Autostart packet mode at dial if DCD?

Port setup

Port setup.....: COM3   ▼       Use hardware flow control  
Port speed.....: 57600   ▼  
Minimum connect speed: 28800   ▼      Dial timeout: 45 seconds

Modem & Dialing

Phone number #1.....: 555-1234  
Modem initstring #1...: AT&F  
Modem initstring #2...: Specify it  
Dialing prefix.....: ATDT  
Hangup string.....: +++~::~ATH0

Redial/Reconnect

Redial  
Attempts.....: 1  
Pulse between.: 5 sec(s)  
 Reconnect at conn. loss

Ok

More phone numbers...

Cancel

Most of this setup you probably already know from other communication programs, so lets focus on the InJoy specific parameters:

- o Call control

In this window you specify whether InJoy should make the call for you, or not. If you choose to do so, InJoy will automatically initialize your modem and call the specifed host's telephone number, when you click on [Dial].

Your job will b only to answer prompts (like giving user ID and password) after having dialed. (Or maybe you wish to auto-generate a log on scrip, if required. Many ISPs no longer need scripts, see below for details.)

The other possibility is to use Terminal Mode, which will put you in charge of initializing the modem and setting up the call.

Even when running Terminal Mode, you can still generate and auto-run script.

When you choose Terminal Mode as the call control method, then you say goodbye to some valued services like automatically re-dialing and re-connecting after an unexpected line drop, so make sure you have a good reason for selecting Terminal Mode for dialing.

Checking the "Autostart packet mode at dial if DCD?" causes InJoy to enter packet mode immediately, if DCD is present. If not present, InJoy will revert to terminal mode and the "press ESC to start packet mode" will appear when the CARRIER is up. This feature is just what is scripts in any way disales this function.

- o Phon number #1

This is the primary phone number used if you choose to let InJoy make the call for you.

The phone number you specif here is always the first phone number to be dialed. If your ISP provides severa phone numbers in your calling area, you have the opportunity to list them here and have InJoy keep dialing until it finds a free line.

Refer to the "More Phone Numbers" section below, for more info.

- o Dial Timeout

This is the amount of time that InJoy will allow your modem to attempt to negotiate a 'handshake' with your ISP's modem. You may set any value between 0 and 999 seconds.

If the modem's initialization string (or modem default) for the S7 value is less than what is set in InJoy's "Dial Timeout" on the "Communications setup" page. That situation allows InJoy to 'time out' and disconnect PRIOR to the modem's 'time out' causing the

disconnect which then is passed to InJoy. The solution is to either decrease the S7 time, or increase the value set in the "Dial Timeout". Bottom line: Modem S7 needs to be LESS than InJoy's dial timeout.

o Redial

Placing an X next to this attribute causes InJoy to initiate another dialing attempt when the first attempt fails.

- The number of times InJoy should attempt to dial a number is set in the "Attempts" block. (It is not possible to set the value to zero, as that would prevent InJoy from dialing.)
- The amount of time, in seconds to pause between dialing attempts is set in the "Pause between" block.

o Reconnect at conn. loss

This option, if checked, causes InJoy to attempt to re-connect if for some reason the link fails after initially being established. This helps keep a constant connection, making InJoy the perfect choice for keeping a connection alive 24 hours a day.

=====  
M O R E P H O N E N U M B E R S  
=====Giving More Chances to Hook Up=====

If you elected to have InJoy do the dialing, you may specify a list of phone numbers to be tried in case of unsuccessful dial attempts.

In order for InJoy to use the list you MUST enable re-dialing. Having done so, you are able to click on the More phone numbers . . ." button at the bottom center of the Communications Setup screen. That will open and the following screen where you may add the additional phone numbers:

Phone number list

Phone number: 555-1235	What to dial? _____ <input type="checkbox"/> All numbers in list <input type="checkbox"/> Selected numbers only
<input type="button" value="↓ Add"/> <input type="button" value="↓ Update"/>	Dial sequence? _____ <input type="checkbox"/> Round robin <input type="checkbox"/> Retry each number (1) times
[ Phone numbers ] _____ 555-1234 - Primary phone nu▲ 555-1235 - (backup #1)    ■ 555-1236 - (backup #2)    ❖ 555-1237 - (backup #3)    ❖ 555-1236 - (backup #4)    ❖	<input checked="" type="checkbox"/> Exit InJoy at redial fail

First number in the list is your primary phone number. This number is dialed regardless of the redial option. You cannot remove this

↓ Waste phone number

number from the list.

Ok

Cancel

o Phon number

In this field you may add as many as 10 phone numbers to the list.

o What to dial

With this option you control whether every number on the list will be dialed, or if only those selected should be dialed.

Select numbers by using either the mouse or the SPACE key in the "Phone numbers" list box. Selected phone numbers are marked by a different color and a round symbol preceding the number.

Note that the primary phone number cannot be de-selected.

o Dial sequence

In this section you set how InJoy will sequence the listed and selected numbers.

Skipping to a new phone number after each dial attempt is known as Round Robin dialing. Using this alternative causes InJoy to skip ahead to the next number (in the listed sequence) if a busy signal or other non-connect situation occurs on any number.

The "Retry each number (x) times" option will cause listed phone numbers to be tried the number of times specified in the "Redial attempts" parameter before attempting the next number. The "Redial attempts" parameter is set in the "Communication setup" screen.

By learning what the problems are in your area usually are, you will be able to determine, and use, the method provides the best connect rate.

o Exit InJoy at redial fail

You may have the need to continue redial attempts. You can establish that by selecting to quit InJoy after having run through the phone number list.

The "Exit InJoy at redial fail" parameter in combination with the auto-connect to host at start-up will enable you to redial forever.

=====  
P P P / S L I P O P T I O N S

=====  
=====Tune for Speed=====

The PPP and SLIP options screens (accessed by singleclicking on the "PPP Options" or "SLIP Options" button in the lower half of the screen) lets you to make choices which help tailor InJoy to your communications line for maximum performance:

PPP options

Toggles	Miscellaneous
<input checked="" type="checkbox"/> Allow PAP Authentication <input checked="" type="checkbox"/> Allow CHAP Authentication <input type="checkbox"/> Allow MS-CHAP Authentication <input type="checkbox"/> Negotiate ACCM to 0 <input checked="" type="checkbox"/> FCS checking <input checked="" type="checkbox"/> Addr & Cntl field compression <input checked="" type="checkbox"/> Protocol compression <input type="checkbox"/> ECHO-REQ resets idle timeout <input type="checkbox"/> Enable auto pinger	Restart timer...: 1000 Max. tries.....: 15 MRU.....: 1500 Interface name.: PPP Priority %.....: 70 PPPFLAG timeout: 2000 msecs.

Ok      Make fast      Make slow      **Default**      Cancel

Note: Don't overlook the capability in the PPP Options screen to just click on the "Make fast" button and then the "OK" button. The "Make fast" settings might be all the speed you need and it might save you from having to read all this:

o Allow PAP Authentication (PPP Only)

To make sure tat you are not authenticating in clear text, turn this option off. However, there is normally there is no reason to turn PAP Authentication off since CHAP is negotiated before PAP, if the host server allows such. Therefore, clear text passing of your user name and password is unlikely, but possible.

The bottom line: If you have special data to protect OR need to be SURE your password is never exposed in clear text (on the phone line), then turn this option OFF.

o Allow CHAP Authentication (PPP Only)

In some very special circumstances you may need to turn off CHAP authentication. There are a few known PPP servers which behave very strangely when they receive a CHAP response, even though they ordered such a response themselves.

- o Allow MS-CHAP Authentication

In the name of security Microsoft introduced an extension to CHAP which made their NT servers incompatible with non-MS log on routines. However, InJoy will authenticate using MS-CHAP techniques if you enable this switch and when challenged for your user account name you must reply in typical NT format, e.g. "redmonde\billsex" where

"redmon

If a domain is not provided, the backslash should also be omitted, e.g. "billsbucks".

If you have trouble you might need these error MS-CHAP error codes:

```
646 ERROR_RESTRICTED_LOGON_HOURS
647 ERROR_ACCT_DISABLED
648 ERROR_PASSWD_EXPIRED
649 ERROR_NO_DIALIN_PERMISSION
691 ERROR_AUTHENTICATION_FAILURE
709 ERROR_CHANGING_PASSWORD
```

They are returned in a line similar to:

```
Remote message: E=649 R=0
```

The "E=" is the error number from the table above, and the "R=" flag indicates whether the error is transient and the client should retry. If you consistently get error 691, then either you're using the wrong account name/password or another problem I'll need to help with. So, check the name/password settings and if problems persist see README.DOC for support contacts.

- o Force ACCM to 0 (PPP Only)

ACCM - Asynchronous Control Character Map, is a table specifying which characters that may NOT be transmitted transparently on the link.

Today, the use of ACCM is almost gone, but some hosts still set up this table to the default value of 0xffffffff. This means that all characters below 0x20 will be escaped and accordingly occupy 2 bytes each.

Setting the "Force ACCM to 0" will make InJoy attempt to negotiate the ACCM mask to 0, and thereby remove the use of the mask.

Setting the 0 parameter will also make sure that InJoy will not exercise the default 0xffffffff mask to the host.

In general, turning this parameter on is very beneficial to line performance. Bad side effects from doing so are uncommon.

- o FCS checking (PPP Only)

Set this parameter on to make InJoy check all incoming packets for a correct Format CheckSum (FCS). Checking will take a little away from total performance (not much though). In most cases there is no need to turn on this feature since the TCP protocol processes the checksum as well.

Be careful though: InJoy's PPP negotiation is NOT running on top of TCP/IP. Therefore, line errors occur while negotiating might give

unpredictable results. It is therefore recommended that conservative systems should have this parameter on.

- o Addr & Cntl field compression (PPP Only)

Each PPP packet includes a few leading bytes that hardly ever change. Selecting this option will force compression of these bytes and save a couple of bytes per PPP packet.

There should be no side effects for turning on this option and the CPU load is not affected by it.

- o Protocol compression (PPP Only)

This routine compresses the protocol information in the PPP packets from two to one byte. (Why not save a byte where possible?)

Enabling this option does not take any additional CPU and saves a byte per packet.

- o ECHO-REQ resets idle timeout (PPP Only)

Some ISPs send echo request periodically to test if your machine responds (if not, the ISP drops the line). Each request/answer pair resets the idle timer and may cause the connection to never timeout and disconnect. Remove the X from this block to ignore echo requests and NOT reset the idle timeout--this allows disconnects to occur based on the lack of other data flow.

- o Auto pinger (PPP Only)

For use in a future version, this item is not yet functional.

- o Restart timer (PPP Only)

The PPP negotiation protocol uses a timer to resend protocol blocks which contained errors again, at the correct time.

For example: If your PAP/CHAP user ID and password block is lost during transmission (maybe due to a bad connection) it must be retransmitted. The time for the retransmission is specified by the restart timer, and the sooner the better (within the limits of your communication line). Therefore, the lower value the better. This parameter can have a BIG influence on the negotiation time, so try to fine tune this value to be as small as possible. (InJoy ships with a default of 1000 milliseconds, work down from there when searching for supreme speed. However, some host have be found which require as much as 5000 milliseconds.)

Keep in mind this timer only affects the time required to negotiate a connection with you ISP. It does NOT affect the actual throughput of the line once the connection is completed.

- o Max. tries (PPP Only)

Specifies how many times the PPP protocols blocks should be resent in case of bad or missing response.

Values of 5 to 10 should be sufficient for most implementations.

*ella*

o Maximum Receive Unit (MRU) (PPP Only)

The Maximum Receive Unit sets the maximum number of bytes that we are capable of receiving in one PPP packet.

Generally, the bigger the better (up to the 4136 max), as the round trip delay of most connections is fairly large.

An incorrect MRU value may be the root cause of an inability to transmit/receive TCP/IP packets even though a PPP connection was successfully negotiated. If you experience that situation, try decreasing the MRU value to see if more reliable operation will result.

During PPP negotiations, InJoy attempts to negotiate the MRU size set by this parameter. However, many host servers do not allow the MRU value to be negotiated and instead dictate the value used. InJoy automatically accepts host dictated values even though higher values improve line performance significantly.

o Maximum Transmit Unit (MTU) (SLIP Only)

This setting is similar in nature to the MRU setting in PPP, except that instead of setting receive packet size, it sets the maximum size of transmitted packages. A setting larger than 1500 (the default) imposes a risk of sending packets larger than those supported by your ISP.

SLIP option

<p>Toggles</p> <ul style="list-style-type: none"><li><input checked="" type="checkbox"/> Allow PAP Authentication</li><li><input checked="" type="checkbox"/> Allow CHAP Authentication</li><li><input checked="" type="checkbox"/> Negotiate ACCM to 0</li><li><input checked="" type="checkbox"/> FCS checking</li><li><input checked="" type="checkbox"/> Addr &amp; Cntl field compression</li><li><input checked="" type="checkbox"/> Protocol compression</li><li><input type="checkbox"/> Enable auto pinger</li></ul>	<p>Miscellaneous</p> <ul style="list-style-type: none"><li>Restart timer...: 1000</li><li>Max. tries.....: 20</li><li>MTU.....: 1500</li><li>Interface name.: SLIP</li><li>Priority %.....: 70</li><li>PPPFLAG timeout: 1000 msecs.</li></ul>
---	---

0 | Mak fast | Mae slow | Default | Cancel

o Interface name (Both PPP and SLIP)

This is the symbolic name used as prefix for the PPP/SLIP interface. Keeping the default value of "PPP" or "SLIP" is a good choice. This parameter should only be changed if your ISP directs you to use something else.

o Priority (Both PPP and SLIP)

The priority parameter specifies the priority that OS/2 will assign to the InJoy dialer.

The value may be fine tuned by hand, but you should be aware of the following:

- Any value larger than 75 percent, will register InJoy as a time critical process. Being time critical is a logic choice for a program handling the CPU demanding COM port.
- However, raising the value much above 75 percent may cause system hangs as the OS/2 scheduler will not allow other processes to "wake up" when they are really needed.

o PPPFLAG timeout (PPP Only)

Each PPP packet can potentially start with a 0xFF byte. Normally the 0xFF is only inserted in the PPP frame if the line has been idle for a while (normally 2 seconds).

Some servers require this byte in each package, if that is the case with your ISP, set this option to 0. However, since this PPP FLAG byte is not normally needed, you might want to try setting the timeout to the maximum value of 9999, and see if performance improves.

=====  
I P M A S Q U E R A D I N G  
=====Many Through One=====

IP Masquerading allows you to share one dial up connection. With it you can use InJoy as an Internet gateway for your LAN even though you have only one ISP account, one IP address and one modem.

NOTE: IP Masquerading is not available in the InJoy Basic Client ~~was available whether you extended to Client this is a feature of InJoy Professional Enterprise Server/Client version, only.~~

These applications will run with InJoy's IP Masquerading:

- o Netscape and WebExplorer (or any other web browser)
- o Any FTP client
- o Any mail client (PMMail, MR/2 ICE, etc)
- o News readers (Agent, NR/2, etc)
- o IRC (but DCC send and identd is not yet supported at client PC's)
- o Telnet

- o Gopher
- o Servers (will run only on InJoy PC and may require individual setup to work). If servers are a requirement for you, then ask me for assistance! Any other client running TCP or UDP protocol should be running.

These applications will NOT run:

- o PING - Works only from InJoy computer
- o TRACERTE - Works only from InJoy computer
- o Programs not running TCP or UDP protocol - Will run on InJoy computer though.
- o Servers on LAN client PC's. For example, a WWW/HTTP, mail or news server running on anymachine OTHER THAN the machine running InJoy will not pass data to/from the Internet. Like a full fledged firewall, this feature of InJy shields all LAN clients from direct outside contact.

Though InJoy is not expected to evolve into a more advanced, secure (and expensive) firewall I am looking into making it possible to configure exactly what is necessary to run servers on an LAN clients. But, that is a future project which will take many rainy days . . . for now you just have to live with the functionality of a simple firewall.

- o IRC DCC Send - Works only from InJoy computer

IP Masquerading, General Information:

With InJoy's IP Masquerading your LAN has only one IP address. In other words, to other machines on the Internet your entire LAN appears as if it is only one machine. Consequently, when a user on your LAN sends data through InJoy to the Internet, each data packet's IP address must be changed from the individual user's LAN address to the single address 'seen' by the Internet. Similarly, incoming packets are changed so they can be routed to the appropriate user on your LAN.

These actions are highly dependant on the source and destination port number information in the TCP or UDP protocol. Port numbers are changed before going to the net and again when IP packets come back from the net, the same port numbers are examined to find the matching IP address.

This process is a bit complicated, but luckily not very CPU/RAM consuming and as a user you should see nothing but a well functioning Internet connection.

In addition to the setup tips that follow, several different thoughts on setting up IP Masquerading is presented in the file FAQ.TXT. Try them all to find the one that works best for you. Check my Web site for more information, and, if you run into setup problems be sure to consult with the experts on the InJoy Mail List.

Masquerading options screen has two areas for user input:

## Masquerading options

Don't masquerade InJoy PC

masquerade port number offset: 60000

This option will turn off masquerading for the InJoy PC, giving better support for servers and special proprietary protocols.

On the technical side this gives a slight chance of collision between the TCP/UDP port numbers used by the InJoy PC and the port numbers used by LAN clients. Setting 'port number offset' to a high value will minimize risk.

Even when not masquerading the InJoy PC, Dial On Demand should still work as the IP address will be manipulated if needed.

Ok

Cancel

The above screen defines the few options available for IP Masquerading.

### o Don't masquerade InJoy PC

If you run IRC DCC or any other tricky protocol, then you should choose not to masquerade the InJoy PC and then use that PC for such purposes.

Read the comment on the screen layout.

### o Masquerade port number offset

Specifies the offset used when masquerading the source ports of the TCP/IP packets. InJoy has to change these port numbers to be able to recognize reply packets and send them in the right direction.

Normally, port numbers are in the range 0-5000 depending on the time since last boot. Masquerading these port numbers to a higher value in order to avoid conflict when not masquerading the InJoy PC is a MUST.

Much more information is available in the FAQ, and here is a quick check list about what to remember when setting it up:

### o Check my HTML page on the subject

o Make sure your LAN clients have good nameserver references. Your ISP nameserver must be referenced in order for your LAN clients to be able to resolve symbolic host names!

o Make sure your LAN clients default route to the InJoy computer. This way InJoy gets packets not destined for your own network and can process them for the Internet.

- The InJoy Mail List is full of bright folks that know a lot about how to make different setups work!

- You might be required to turn on IP forwarding for the TCP/IP stack. This can be done by running 'ipgate on' at system start up or by setting the appropriate check box under route set up in the OS/2 TCP/IP configuration.

o And remember:

- You cannot ping/tracerte from the LAN clients as they don't use the TCP/UDP protocols (needed to masquerade).
- Server support is very complicated with masquerading. At the moment you can run an FTP server at the InJoy PC, but that is basically it! More support later on!

```
=====
D I A L   O N   D E M A N D
=====Disconnect Actions=====
```

Dial on Demand (DOD) allows for automatic dialing when a application on your machine or a masqueraded LAN machine needs it; auto-disconnecting when te connection is idle (using the idle timeout feature); and, auto-dialing again, at the next need/demand. This powerful connection charge saving feature is only available in the InJoy "Extended Client" and "Professional Enterprise Server/Client" versions.

To enable dial on demand in its most basic form, enable the "Dial On Demand" option, accessed by clicking on "disconnect options" on the PPP/SLIP setup page.

```
[ Dial On Demand ]
[X] Dial On Demand (DOD)
  [ ] Refresh interface
  [ ] Masquerading (single user)
  [ ] Display DOD indicator
```

NOTE: Dial on demand is NOT enabled until you have successfully dialed your ISP and disconnected. That action is required in order to set up route information needed for subsequent connections.

Dial on demand varies in complexity depending on outside parameters, such as dynamic versus static IP addressing and use of IP Msquerading versus singleuser mode.

o Dialon demand with statically assigned IP address:

In a scenario where the ISP configures your PPP connection with a static IP address, you should expect great results from Dial On Demand with absolutely no drawbacks.

Just enable the "Dial On Demand" option and it should work.

o Dial on demand with dynamically assigned IP address:

Dial on demand was never meant for use in an environment with dynamically assigned IP numbers.

Routes are kept across connections and using dynamically assigned IP addresses gives inconsistency. To compensate you have the option of refreshing the PPP0/SLIP0 interface at each connect or enabling single or multi-user IP masquerading.

If you normally do not need multi-user IP Masquerading opt for single user IP Masquerading is a lot more simple. Otherwise, with

-- Refresh interface

Refreshing the PPP/SLIP interface at each connect, makes it possible to reflect the correct IP addresses and thereby give a clean connect without the need for IP Masquerading (assuming you don't need IP Masquerading to share our line).

When connecting using this option, your Internet applications will have TCP/IP connections that still use the old interface (the IP address of the your previous connection) as will the application initiating the Dial on Demand. A re-connect demand (as in choosing reload in your browser) will bring your TCP/IP applications back to life.

The above should be the only drawback of this implementation.

-- Masquerading (single user)

This will enable a simple (single user) IP Masquerading mechanism. All the standard TCP/IP applications should work using this mechanism and there are no known drawbacks in a standard environment.

IRC DCC requires some extra support and so will any application that requires a connect back.

If enabled, multi-user IP Masquerading will take precedence over this option.

o Look 'n feel

In this section you can find a few hints that will prove useful when working with Dial on Demand.

First of all, if you have Dial on Demand enabled and you really don't want InJoy to dial until you again select a specific host, then turn it off using the F5 key.

In a disconnected state, you can monitor the status of dial on demand by looking at the CPS meter in the bottom of the screen. A red bar will visualize the packet scanning activity, assuming that you have the "Display DOD indicator" option turned on.

=====

HOST TRIGGERED ACTIONS

=====Distant Command=====

Host Triggered Actions allows you to setup InJoy to monitor the COM port and react to a secret "trigger string" passed from the LAN server, ISP, or your laptop (while on the road).

So far, client actions are restricted to reboot and/or redial the current host. Registered users are invited to make their needs known.

Access the setup (shown below) by clicking on [...Disconnect actions] on the PPP or SLIP setup page:

[ Server triggered dialing ]	
<input checked="" type="checkbox"/> Monitor COM port	Actions
Trigger string.: *****	<input checked="" type="checkbox"/> Cal this host
Delay.....: 99 msecs.	<input checked="" type="checkbox"/> Boot computer

COM port monitoring requires the port to left open a all times. To do that, click on the[Misc. opt.] button on InJoy's face, then on the [ General options ] button and click to put an X in the "COM port always open?" check box under the [ "More... ] heading.

Easy. Now, just pass the secret trigger string through the COM port and enjoy InJoy.

=====SCRIPT SETUP=====  
=====Simple and Effective=====

Prepared scripts take all the pain out of logging on your ISP's server by completely automating the entire process. Therefore, I tried to make script setup as simple as possible, but here are a few items which are nice to know.

First, if your ISP has either PAP or CHA you will probably NOT need a script. So, check out that option FIRST. Just make sure PAP and CHAP are enabled on thePPP setup page and try a connection while the "Automatically learn script" check box is empty. If your UserID and password is accepted automatically and a connection is negotiated, you can skip this whole section. :-)

And, if the first attempt fails, you still might be able to log on without a script by turning off CHAP.

Script setup	
Script filename	Script filename.: TestOne_.scr
<input type="checkbox"/> Learn options	Scripts will elp you automating

Automatically learn script  
 Scan for IP addresses

Script execution options  
 Autorun script when connected  
 Autorun script at host select  
 Don't run  
Script delay: 250 millise(c)s

the host login process.

Automatically learned scripts normally just work, but in some situations they require a human touch.

If your autogenerated script does not work, then edit the script-file by hand, synchronizing script and host login prompts. Remove non static 'prompts' from script.

Ok

Reset script

Cancel

Most of the options are self explanatory, let's look at what is not so obvious:

o Script file name

Naming your script is simple, just be sure that you do not have two hosts with the same name for the first 8 characters. That is not illegal, but when creating new hosts you might accidentally overwrite a needed script when InJoy automatically generates the new script based on the first 8 characters of the host's configuration name.

The above fact makes deleting, resetting and creating a script just a bit tricky, so take care.

o Scan for IP addresses

Enable this option if you are running SLIP and need to grab the IP addresses from the text sent to you by the server.

The "Scan for IP addresses" is only used in connection with script learning. Found IP addresses are presented to you upon script learn completion and at that time you have to link the IP addresses found to match the "Your IP address" and "Gateway IP address" fields.

InJoy will insert two lines in the bottom of your script like shown below. One of them to find and identify "Your IP address" and one to identify "Gateway IP address".

```
RX: Welcome to SLIPNET
TX: \r
RX: Login:
TX: 200000000000\r
RX: Password:
TX: cataftermouse\r
RX: Interface going up!\r\n
GY: Your IP address is: [$YOUR_IP]
GD: My IP address is: [$DEST_IP]
```

Be sure that your script is waiting for data to arrive after the

6.24

IP addresses. This gives InJoy a chance to scan the data received for the script, and is done in the above by the line:

```
RX: Interface going up!\r\n
```

It works because IP addresses are sent before the interface is reported as "going up", giving InJoy a chance to search the script input buffer for IP addresses.

#### o Script delay

Script delay is a timer which sets how long InJoy waits between the execution of each line in the script.

Normally, since scripts wait for prompts after having sent something it is not dangerous to set this value very low (even below the 200 in the "default" host) but, sometimes a critical timing situation may occur causing the modem to hang. In some cases the modem is no longer capable of even responding with an "OK" to an AT command. In other cases the modem is not able to handle AT commands in a very fast sequence even though it has answered back with an "OK".

The bottom line is that 250 should work; less than that will improve performance IF hardware on both ends can support it; and, two seconds should give even the oldest (and slowest) hardware ample time to get the job done.

Notice that this value must be specified in milliseconds. (1000 milliseconds equals one second!)

```
=====
S C R I P T   L A N G U A G E
=====Roll Your Own=====
```

The scriptlanguage is very simple and it includes the following commands:

```
TX: text to send
RX: text to expect
DE: milliseconds .. delay in milliseconds (1000 = 1 second)
PA: E71
PA: N81
GY: Here is your IP address: [$YOURIP]
GD: Here is the Gateway address: [$DEST_IP]
ID: Put up an interactive box, allowing input
PS: Put up an interactive box, allowing input (not echoed)
```

In order to specify Carriage Return and/or Line Feed in the scripts, you have to use the the following escape characters:

```
\r - indicates a Carriage Return (0x0D).
\n - indicates a Line Feed (0x0A).
\\ - indicates just a normal backslash.
\! - indicates the character Escape (0x1b).
```

Check this simple sample of an average script:

```
RX: login:
TX: [$USERID]\r
RX: password:
TX: [$PASSWORD]\r
```

Check out this example to see how the scripts can be used (full sample):

```
DE: 2000
TX: \r
RX: login:
TX: [$USERD]\r
RX: password:
TX: [$PASSWORD]\r
RX: annex
TX: ppp\r
RX: Enter todays dynamic secret
ID: Enter the secret!!! ; Will show a box allowing user
; inpu... "Enter the secret"
; will be the user prompt!

RX: Enter top secret admin password:
PS: ; Will show a box allowing a
; password to be entered non-
; echoed.. Keeping the format
; "PS: " is mandatory. The e.exe
; will allow for having a space
; character as last character.

RX: Interface going up\r\n
GY: Your IP address is: [$YOUR_IP] ; Grab the IP addresses from
GD: My IP address is: [$DEST_IP] ; scren
```

The first line of this script waits for 2000 milliseconds (which is 2 seconds) and then continues to wait fo the prompt "login:".

Upon receipt of that prompt it sends the special InJoy meta variable that includes the user ID you specified under the host setup.

You should also notice that a similar meta variable for the password also exists.

It is perfectly legal to start the script using any command. It is also allowable to specify the same command several times in a row, i.e. You don't have to wait for something between each send, and you don't have to start the script by waiting for something.

If you have InJoy auto-generate a script for you, the script file is saved when you press ESC to enter PPP packet mode.

You can modify the saved file, if you need to, using a text editor. For example you may wish to streamline the script which InJoy automatically created for you.

Some hosts require you to log in using 7 databits and EVEN parity (e.g. Compuserve). For that purpose you can use the 'PA: E71' directly in your script. To go back to 8 bit no parity use the 'PA: N81' verb.

```
=====
S A V I N G   H O S T   I N F O
=  :=====Default or Not=====
```

After filling in all host information, you are returned to the SLIP/PPP setup screen where you may 'save host' or 'save as default'.

Clicking on 'save host' will cause the information entered in the various setup screens to be associated with the host name you selected as a first step.

'Save as default' does much more. It overwrites the information in the 'default host' as it existed when InJoy was distributed. Therefore, you may wish to initially use 'save host' until you have a proven workable setup.

Then, when you are ready to experiment with tweaking the various settings to improve performance, you may want to save a new setup you created as the 'default host'. Then, each newly created host begins with proven characteristics (and your password/ID/etc) and you only need change potential performance enhancing fields.

```
=====
D I A L I N G
=====How InJoy Dials, and Why=====
```

InJoy was designed for two kinds of dialing. The easiest dialing mode is, of course to let InJoy do the dialing and let a script do all the log in process.

o InJoy dialing

If you enable InJoy dialing (refer to communication setup), InJoy will initialize the modem and then dial your host's number. To do that InJoy uses a special script with the following cycle:

- Try to initialize modem using initialization string 1 (if available)
- Wait for a maximum # of seconds as specified by dial timeout.
  
- Try to initialize modem using initialization string 2 (if available)
- Wait for a maximum # of seconds as specified by dial timeout.
  
- Try to dial the number (using primary phone number and dial prefix)
- Wait for a maximum # of seconds as specified by dial timeout for any of these responses: CONNECT, ERROR, NO DIAL TONE, NO CARRIER, NO ANSWER, BUSY, FAIL, or OK.

These are the basics of the connect script, but InJoy also supports redialing, re-connecting and auto-dialing. And, how do those features add onto the basic functionality?

Well, regarding re-connect and auto-connect jump to the section describing the general dialing facilities (below).

Redialing however functions together with the above script.

If dialing results in anything other than a CONNECT, InJoy checks the redial flag (found under communication setup) and proceeds with the selected phone numbers in the phone number list.

The modem is reset in between each redial attempt.

As dialing and scripting is somewhat connected, you will find that the timer found on the script setup page is also used for dialing. This timer specifies for how long InJoy will wait between executing each line of a script. In general it should not be dangerous in any way to have this timer set very low, as the scripts normally wait for something (e.g. an OK response from the modem) before continuing.

#### o Terminal Mode dialing

Doing your call using Terminal mode is very simple. As with any other program providing a Terminal Mode, you issue AT commands directly to the modem.

When InJoy detects a connection, it will pop up a small window notifying you that you can press ESC to start PPP packet mode.

As with InJoy dialing, you can store the commands you give in a script, but the difference is that while using Terminal Mode you would normally like your script to execute at the point of host selection (refer to script setup to see how that is done).

If you do not want to edit an auto-learned script, or if you want to overwrite a previous script, you can use ALT-L to start the auto-learning of a new script. When auto-learning a script, follow the instructions on the screen.

If you plan to use a NULL-MODEM for connection to a host, you will find Terminal Mode to be very useful as well.

#### o General for both types of dialing methods

Regardless of how you choose to dial you have the possibility of combining your dialing with the re-connect and auto-connect functions.

Re-connect hasn't got much to do with the dialing itself, it simply re-SELECTS your active host right after being disconnected (in an unprovoked manner, such as carrier drop, ISP dead, etc, etc).

Auto-dial hasn't got much to do with dialing either. It simply means that a special host should be auto-selected at start-up

Also, remember to check the latest InJoy FAQ for questions regarding dialing!

=====  
C O N N E C T . T X T  
=====Your IP Address, Instantly=====

When InJoy has established a successful connection, it immediately creates a file named CONNECT.TXT

This file includes characteristics about your current connection. The following is an example of the contents of a typical CONNECT.TXT file:

-----QUOTE-----

```
194.234.160.52
194.234.160.8
Host.....: IBM Advantis
Modem connect.: CONNECT 57600
Line speed....: 57600 bps
```

This file reflects the current/latest InJoy Internet connection information.

YOUR IP address and the GATEWAY IP address makes up the first two lines.

-----END QUOTE-----

CONNECT.TXT is not a semaphore file, so don't use it to determine if you are connected at any moment. Other means are available for verifying the connection at any instant . . . if you need to do so, contact the author via e-mail for assistance.

=====  
H A N G I N G    U P  
=====Several Ways t Say Goodbye=====

Normally, you should disconnect InJoy with ether of these two ways:

- o Click on the [Hang Up] button (or key ALT-H,) will drop DTR on the modem and thereby force a carrier drop. However, if you have disconnect troubles using this procedure, the following could be a problem solver for you:
- o You can provoke a "graceful" PPP log off by pressing ALT-T (T to Terminate the session).

When necessary InJoy may also be forced to break the connection by running KILLJOY (see below for more details) or by pressing CTRL-BREAK.

After hanging up (with any of those methods), InJoy updates the connection log for the appropriate host. Even if terminating by using

KILLJOY (see below) or CTRL-BREAK, you should still get an entry in the connection log!

=====  
T R A C I N G  
=====Capturing Tech Data=====

To trace and monitor line activity, use the trace function. To setup tracing click on the [Misc. opt] button on InJoy's opening screen, then click on the [Trace configuration] button, to reveal this screen

Trace setup

[X] Trace ON/OFF

Trace: _____ [ ] Trace communication line [X] Trace PPP negotiation [X] Trace errors [ ] Debug information [ ] Trace buffers [ ] Ticker	Output to: _____ [X] Trace file (IN-JOY.TRC) [ ] InJoy output window
	IPtrace support: _____ [ ] Outgoing packets in IPTRACE [ ] Incoming packets in IPTRACE

Trace typically captures what you see in the output screen of InJoy to a file named IN-JOY.TRC. Careful: Too much tracing will slow down InJoy considerably, and too little could keep important information from reaching your sharp eye!

Removing the X in the "InJoy output window" check box allows trace data to be captured to file without the time/resource penalty of sending the same data to the screen.

When running in a stable environment, it is recommended to turn ON only "Trace PPP negotiation" and "Trace errors" . . . at the most. For some users, even that will be an unneeded speed drain (however slight).

The trace file is sometimes indispensable in solving problems reported to the Mail List, Support Center or program author.

IPTRACE.EXE (included with OS/2) can be used to save a trace file of both in and outgoing packets. You can use IPFORMAT.EXE (also a Warp utility) to format and display that trace file.

Note: The [Reset] button deletes the trace file!

=====
   
C O N N E C T I O N   L O G
   
=====Capturing Connection Data=====

The connection log saves information on the connections you have had and how long they lasted.

Control and view the connection log by clicking on on the [Misc. opt] button on InJoy's opening screen, then click on the [Connection log] button. Finally, select the host whose log you wish to view and you will see the date, connection start and end time, whole number of minutes connected, total amount of seconds connected and in the last column the connection time in HHH:MM:SS notation.

Connection logging monitor

[ Hosts ]	[ Date	Start	End	Mins	Secs	Time]
Default	20.12.1996	04:36:28	04:36:34	0	6	000:00:06 ▲
TestOne	20.12.1996	04:36:38	04:42:28	5	350	000:05:50
	21.12.1996	15:02:05	02:23:44	681	40898	011:21:38
	21.12.1996	11:02:37	15:43:25	280	16847	004:40:47
	21.12.1996	18:55:12	19:05:39	10	627	000:10:27
	21.12.1996	19:09:46	23:42:18	272	16352	004:32:32
	22.12.1996	00:25:46	03:47:30	201	12103	003:21:43
	22.12.1996	03:48:18	03:49:22	1	63	000:01:03
	22.12.1996	03:50:15	03:51:26	1	71	000:01:11
	22.12.1996	03:51:38	03:51:50	0	12	000:00:12
	22.12.1996	13:03:58	13:32:58	29	1740	000:29:00 ▼

Connections overall 61\* connections this month 61\* connections today 5

Cnnects overall: 052:27:40 3147mins	Longest connect: 011:21:38 681min
this month.: 052:27:40 3147mins	this month: 011:21:38 681min
today.....: 003:53:09 233mins	today.....: 003:21:43 201min

InJoy will sum up the monthly connection time, when you click on the [Monthly Summary] button. Below you can see how each month for the selectd host is displayed, with connection statistics.

[ Hosts ]	[ Date	Start	End	Mins	Secs	Time]
Default	Oc 1996	void	void	81	4874	001:21:14 ▲

TestOne	Nov1996	void	void	1793	107605	029:53:25
	Dec 1996	void	void	69	4185	001:09:45

To reset the connection log for the selected host, simply click on the need to save the data for any purpose (for example, business expense records) you must archive prior to using InJoy's reset feature.

[Res

At the bottom of the connection log screen the following is displayed:

Connections overall 61 \* connections this month 61 \* connections today 5

Followed by statistics showing the overall connect time, connect time this current month and connect time for the current day. The statistics conclude by presenting you the longest connections overall, for this month and today.

```

connects overall: 052:27:40 3147mins   Longest connect: 011:21:38 681mins
  this month.: 052:27:40 3147mins   |   this month: 011:21:38 681mins
  today.....: 003:53:09 233mins   |   today.....: 003:21:43 201mins

```

The displayed connection log can be viewed as a file. It exists in InJoy's directory with the pattern XXX.LOG, where XXX will be some variation on a host name.

```

=====
TEXTMODE TICKER
=====Old But Still Ticking=====

```

Setup the Textmode Ticker by clicking on the [Misc. opt] button on InJoy's opening screen and then click on the [Textmode Ticker (old)] button. During a live connection the tickers may be turned off by pressing the F8 key, or turned on with the F7 key.

Though this ticker is not as fancy as the newer Graphical Ticker, it has been retained due to popular demand.

The InJoy Textmode Info Ticker operates as a low priority, background function that (if enabled) connects to the InJoy server to retrieve and display the information you request.

At this time the requested information may be either commercials or announcements, or both.

See the screen below to get an impression the configuration options:

```
Ticker setup
[X] Enable/disable ticker      What is the InJoy ticker???
[X] Commercials                On this screen ou select
[X] Announcements              whether InJoy shouldconnect
                                to the IJ-center or not!

Seconds between fetching: 5

Commercial server: 198.64.226.104

The IJ center will reply by
giving you the selected kind
of information. Receiving will
run low priority in the back-
ground and use only very little
CPU and bandwidth.
*** IMPORTANT ***
This line activity will put the
idle timeout out of the game!
```

Save      Cancel

The 'commercial server is the IP address of the server giving the commercials. You cannot use any server that comes to mind, but only the ones provided by the InJoy team. The default choice is probably the best, and as this writing, the only choice.)

There are a few things to be considered when enabling the ticker: First, since information is constantly flowing into your machine, the idle timeout will never reach zero. And, second: You might not receive any ticker information, at all.

The idle timer monitors the line activity and you will not get a idle line timeout as long as the ticker fetches. Of course you could make the 'ticker fetch interval' bigger than the idle timeout.

As the speed of our connection or InJoy server may vary, I cannot guarantee you any ticker info at all. Also, the ticker info is requested at each fetch interval, but it might show up a lot later.

And finally. The 'InJoy Info Ticker Server' is NOT a server that will register your name and license number or anything else. Neither will InJoy scan your hard disk for pirate software or anything similar :-)

```
=====
G R A P H I C A L   T I C K E R
=  =====A Pretty Face, and Brains=====
```

Setup the Graphical Ticker by clicking on the [Misc. opt] button on

InJoy's opening screen and then click on the [Graphical tickers] button. During a live connection the tickers may be turned off by pressing the F8 key, or on with the F7 key.

If you have trouble configuring the Graphical Ticker let the team know and we will write more instructions.

=====

GENERAL SETUP

=====

InJoy is So Flexible=====

The general setup screen includes options for the general behavior of InJoy. Access it by clicking on the [Misc. opt] button on InJoy's opening screen, then click on the [General options] button.

General setup

<p>[ Confirm ]</p> <ul style="list-style-type: none"><li><input checked="" type="checkbox"/> Eit (when connected)?</li><li><input checked="" type="checkbox"/> Exit (when NOT connected)?</li><li><input type="checkbox"/> Hangup?</li><li><input checked="" type="checkbox"/> Deleting scripts?</li><li><input checked="" type="checkbox"/> Deleting hosts?</li><li><input checked="" type="checkbox"/> Deleting autostarted programs?</li></ul>	<p>[ CPS monitor ]</p> <ul style="list-style-type: none"><li><input checked="" type="checkbox"/> Average CPS based on data sent?</li><li><input checked="" type="checkbox"/> Average CPS based on data recv?</li><li><input type="checkbox"/> Idle sensitivity?</li><li><input checked="" type="checkbox"/> Smart notation?</li><li><input checked="" type="checkbox"/> CPS values in the connect log?</li></ul>
<p>[ Miscellaneous ]</p> <ul style="list-style-type: none"><li><input checked="" type="checkbox"/> Show about box at startup?</li><li><input type="checkbox"/> Allow 0.0.0.0 as GWY IP addr.</li><li><input type="checkbox"/> Disable timeout warning</li><li><input type="checkbox"/> Disable TIMER warning</li></ul>	<p>[ More... ]</p> <ul style="list-style-type: none"><li><input type="checkbox"/> Disable all tunes?</li><li><input type="checkbox"/> Error box at hangup fail?</li><li><input type="checkbox"/> OM port always open?</li><li><input type="checkbox"/> COM port exclusive open?</li></ul>

Ok                      Cancel

o Confirmation options

Flag the options to specify what actions you would like to confirm before being performed by InJoy.

Notice that regarding InJoy exit, the confirmation option here only has effect if you actually selected the [Exit] button, i.e not by pressing the ESC button!

o Miscellaneous

- Show about box at start-up

With the 'Show about box at startup option you can select whether the about box with register and contact information should be shown at start-p.

Selecting InJoy to automatically connect at start-up will over ride the use of this flag.

- Allow 0.0.0.0 as GWY IP addr.

If enabled, will allow your ISP to the use of 0.0.0.0 as GWY address.

In general this use is incorrect. But with certain implementations of SLiRP (refer to other sources for information about SLiRP) this actually works.

If your ISP uses SLiRP and maybe runs the serve called TIA, then you should check this option.

- Disable timeout/timer warning

Disabling the timeout and/or timer warnings will make sure that you are not disturbed with warnings in a scenario where you'd rather not see them. Use of Dial On Demand is a situation where timeout warnings can be a pain. Turning off the warnings silences warning sounds as well.

#### o CPS monitor

- Average CPS based on data sent?

Should outgoing data be included in the average CPS calculation?  
If yes, enable this option

- Average CPS based on data recv?

Should incoming data be included in the average CPS calculation?  
If yes, enable this option.

- Idle sensitivity?

Should line idle second have influence on the average CPS calculation? If yes, enable this option.

- Smart notation?

Will go from CPS (Characters Per Sec) to Kilo CPS when number of characters go beyond 1K, and InJoy will continue to show MEGA CPS when number of bytes is above 1000K.

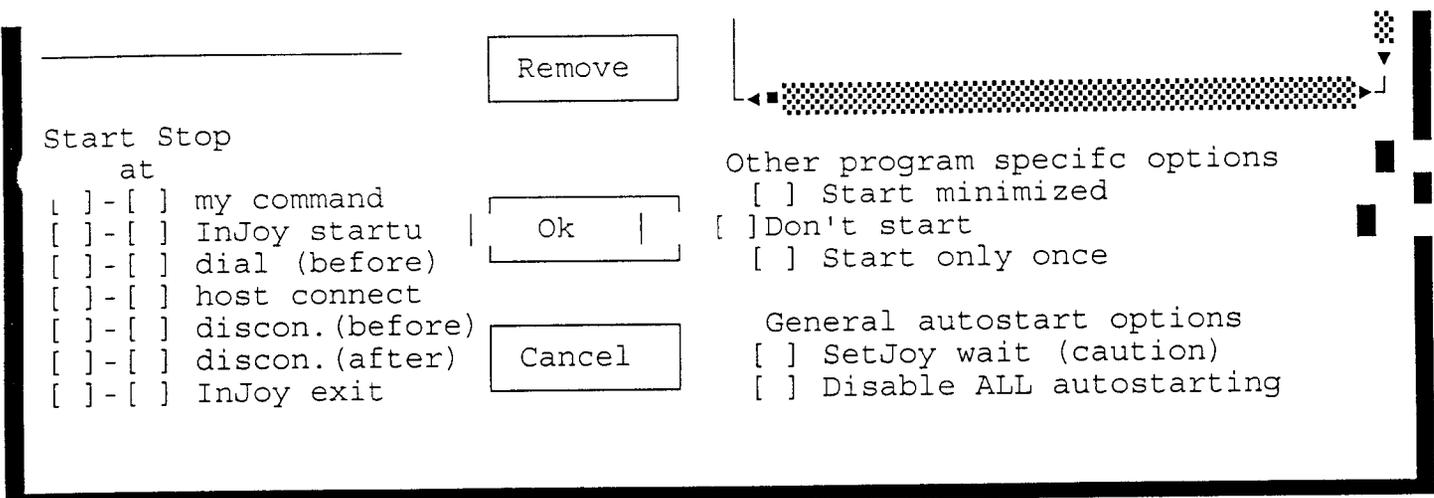
- CPS values in the connect log?

Select this option to have the CPS statistics saved in the connection log for later viewing.

#### o More . . .

- Disable all tunes?





Path, file name, parameters and working directory must be set up as with any other program object in OS/2.

NOTE: An unnecessary trailing back slash in the working directory line can cause problems. For example, if you use D:\SOUTHSDE\PMMAIL\ instead of the correct D:\SOUTHSDE\PMMAIL you will find that PMMail will nt startup correctly.

The check boxes in the bottom half of the screen allow you to start or stop the applications listed in the 'Autostart list' in many different ways.

Most settings and uses are self-explanatory or fully covered by the on screen 'hints'. A few things that may need additional information are:

- If you do not need to start a listed program for some time, you don't have to delete it, just mark the "Don't start" check box.
- Starting programs minimized does NOT work for PM applications. This is an OS/2 limitation.
- For InJoy to be able to stop an auto-started program at any time, it must be able to stop it at InJoy's close. Therefore, to select program closure at my command, dial, connect OR disconnect the 'Stop at InJoy exit' block must be checked. For example: To auto-stop a program at host connect, you must place an X in BOTH the 'Stop at host connect' AND 'Stop at InJoy exit' blocks.
- To change the settings of any single application you MUST press the [ Update-> ] button while the desired parameters are displayed for THAT item, prior to pressing the Ok button to close the dialog.

Use CAUTION when setting up a program to autostart with 'SetJoy wait'. 'SetJoy wait' causes InJoy to PAUSE until it receives a SetJoy proceed signal. Use this feature AT YOUR OWN RISK, incorrect set up may cause a connection to continue long after it should have ended.

However risky it might be, it is also a powerful and useful feature -- when used correctly: 'SetJoy wait' should ONLY be enabled when you want to autostart a program, REXX script or batch file and have InJoy NOT continue and dial, or disconnect until allowed by running setjoy.exe with the /C switch. You may run the program from a command

prompt, batch file or Rexx script in this format:

setjoy.exe /C

=====  
C O M M A N D   L I N E   O P T I O N S  
=====  
=====-Customized Starts=====

InJoy has one available command line argument. (Item added to meet use

me.)

You may launch InJoy and cause it to dial any predefined host simply by using that host's name as a command line argument For example:

```
in-joy.exe HostName
```

NOTE: The host name used IS case sensitive. You must enter it exactly as recorded in InJoy's [ Host ] listing.

Tip: You can use this technique in host objects and have several hosts you can 'click' to life.

```
=====
K E Y B O A R D   S H O R T C U T S
=====
```

```
=====Busy Hands=====
```

The following keyboard shortcuts are available

```
ALT-E Reset timer
ALT-Q Quit script learning - do NOT save this learning session
ALT-L Learn script Start/Stop - SAVE learned script
ALT-T Terminate the connection, gracefully
ALT-R Reset idle timeout (time line allowed to remain idle)
```

```
F5  Turn Dial on Demand Off
F6  Reserved for future use
F7  Start Tickers
F8  Stop Tickers
F9  Start Programs (as selected in Autostart dialog)
F10 Stop Programs
```

```
=====
S E T J O Y
=====
```

```
=====Connected Changes=====
```

SetJoy is a utility to change InJoy's operating characteristics while InJoy is loaded and running. SetJoy is used during specific autostart options to control shutdown timing (see "Auto-starting modules" section of this document for details). Additionally, SetJoy may be used to set the idle timeout and timer or force a disconnect.

More options will be added as the popular needs of our registered users are identified. Make your wishes known on the InJoy Mail List (See README.DOC for sign up details).

USAGE: SETJOY [<option>]

Where <option> is:

/H, /h or /? - Display help

/C - for use with specific auto-starting options, see details in the 'Auto-starting modules' section of this document.

/D - Disconnect the current connection, immediately

/O:<host name> - Changes, and saves the /T or /I setting for the named host. NOTE: The /O option (when used) must precede /T and /I

    /O:\* - modify every host and save the setting (default)

    /O:# - modify the current host, and NOT save the change

/T:nnn (or t) - Set the Idle Timeout from 0 to 999 seconds

/I:nnn (or i) - Set the Timer from 0 to 999 minutes

NOTE: Setting zero for either the Idle Timeout or Timer turns that feature off.

EXAMPLES:

```
setjoy /O:* /T:999
  Sets and saves Idle Timeout of all host to 999 seconds

setjoy /I:120
  Sets and saves Timer of all host to 120 minutes

setjoy /O:# /T:90
  Sets the current active host's Idle Timeout to 90 seconds, for
  this session only.

setjoy /O:"TeleDK account" /T:30
  Set and save the Idle Timeout of the host named
  <TeleDK account> to 30 seconds. NOTE the " around host
  names which include spaces.

setjoy /O:Vestnet /I:0 /T:0
  Turn off the Timer and Idle Timeout for the host named
  <Vestnet>, and save those settings.
```

```
=====
K I L L J O Y
=====The Ultimate Ending=====
```

KillJoy is a small utility program that will allow you to kill InJoy from the command line.

KILLJOY.EXE may be run without parameters causing InJoy to die instantly (and thereby drop the possible modem connection, hopefully.)

or

It can be run with the '-' parameter which causes it kill InJoy as soon as the modem connection is gone.

Refer to the disconnect actions for other means to disconne