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August 30, 1991

Dear Release 3.3 User:

This package contains Release 1.0 of the iPSC®/860 Online Documentation for Release 3.3 software. With this product installed on your workstation or SRM, you have online documentation for all the cube commands and all the NX/2 system calls, both C and Fortran versions, as well as the calls and commands making up the Parallel Performance Analysis Tools (PAT) and the Network Queueing System (NQS).

Before using your Online Documentation:

- **Read this letter completely.**
- **Verify the contents of this package.**
- **Read the *iPSC®/2 and iPSC®/860 Release 1.0 Online Documentation for Release 3.3 Product Release Notes.***

Package Contents

This package contains a change notice for the *iPSC®/2 and iPSC®/860 Programmer's Reference Manual*, *the iPSC®/2 and iPSC®/860 Release 1.0 Online Documentation for Release 3.3 Product Release Notes*, and a cartridge tape containing the online documentation software.

If items are missing, or if you have any questions, please contact Intel Supercomputer Systems Division immediately. Refer to "Comments and Assistance" for information about how to contact Supercomputer Systems Division.

Restrictions and Limitations of Release 1.0

Every effort has been taken to ensure the quality of this release, but at this time we are aware of a few problems. Please refer to the *iPSC®/2 and iPSC®/860 Release 1.0 Online Documentation for Release 3.3 Product Release Notes* for known restrictions, limitations, and their workarounds.

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1. The terms "iPSC Supercomputer" and "iPSC system" refer to any of the following SSD products: iPSC®/2, iPSC®/2S, iPSC®/860, and iPSC®/860S.

Comments and Assistance

Supercomputer Systems Division is eager to hear of your experiences with our new software product. Please call us if you need assistance, have questions, or otherwise want to comment on this product.

1-800-421-2823 (Customer Support Response Center)
(44) 793 641 469 (in England)
Your Local Intel Sales Office (in Europe)
support@ssd.intel.com (Internet address)

Supercomputer Systems Division is trying to produce the best documentation for your needs. If you have comments about the iPSC manuals, you can send them electronically to the following address:

techpubs@ssd.intel.com (Internet address)

The Intel Supercomputer Users' Group promotes the exchange of information among users. Intel strongly supports the Users' Group and encourages participation in its activities, which include: Special Interest Groups (SIGs), an annual international users' conference, an e-mail task force, and a "freeware" library of user-contributed software, available electronically to all members of the Intel Supercomputer Users' Group. For membership information contact:

JoAnne Wold (503-629-7737)
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Sincerely,

Elliot Swan

Manager, Technical and Product Marketing
Intel Supercomputer Systems Division

P/N: 312204

August 1991
Order Number: 312205

iPSC®/2 and iPSC®/860
RELEASE 1.0 ONLINE DOCUMENTATION
FOR RELEASE 3.3
PRODUCT RELEASE NOTES

intel® Corporation

REV.	REVISION HISTORY	DATE
---	Original Issue	8/91

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PREFACE

These release notes provide the latest information on features, limitations, workarounds, and installation procedures for the iPSC/860 Online Documentation for R3.3 software product.

ORGANIZATION

Chapter 1	Describes features of the Online Documentation for R3.3 software.
Chapter 2	Tells how to install the software.
Chapter 3	Describes known limitations and workarounds.

APPLICABLE DOCUMENTS

For more information, refer to the following manuals:

iPSC®/2 and iPSC®/860 Programmer's Reference Manual
311708-004
Provides detailed information on all C and Fortran routines and commands for the iPSC system.

iPSC®/2 and iPSC®/860 Interactive Parallel Debugger Manual
312043-001
(Replaces 311569-002 and 311826-001)
Tells how to use IPD, the iPSC system concurrent debugger.

iPSC®/2 and iPSC®/860 Network Queueing System Manual
312061-002
Tells how to use the network queueing system software.

iPSC®/860 C Compiler User's Guide
312130-001
Describes the C cross-compiler and compiler driver for iPSC/860 systems.

iPSC®/860 Fortran Compiler User's Guide
312131-001
Describes the Fortran cross-compiler and compiler driver for iPSC/860 systems.

iPSC®/860 Parallel Performance Analysis Tools Manual
312139-001
Tells how to use the performance analysis software for the iPSC/860 system.

NOTATIONAL CONVENTIONS

This manual uses the following notational conventions:

Bold Identifies command names and switches, system call names, reserved words, and other items that must be used exactly as shown.

Italic Identifies variables, filenames, directories, processes, user names, and writer annotations in examples. Italic type style is also occasionally used to emphasize a word or phrase.

`Plain-Monospace`
Identifies computer output (prompts and messages), examples, and values of variables. Some examples contain annotations that describe specific parts of the example. These annotations (which are not part of the example code or session) appear in *italic* type style and flush with the right margin.

Bold-Italic-Monospace
Identifies user input (what you enter in response to some prompt).

`Bold-Monospace`
Identifies the names of keyboard keys (which are also enclosed in angle brackets). A dash indicates that the key preceding the dash is to be held down *while* the key following the dash is pressed. For example:

`<Break>` **`<s>`** **`<Ctrl-Alt-Del>`**

`[ ]` (Brackets) Surround optional items.

`...` (Ellipsis dots) Indicate that the preceding item may be repeated.

`|` (Bar) Separates two or more items of which you may select only one.

`{ }` (Braces) Surround two or more items of which you must select one.

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PRODUCT DESCRIPTION 1

Online documentation for iPSC/860 system software Release 3.3 consists of manual page files and **man** executables. The manual page files are ASCII files in **troff** format using the **-man** macro set.

The **man** executables are intended for the System Resource Manager (SRM). Previous versions of UNIX for the System Resource Manager did not include **man** or **troff** software. The manual page files themselves are intended for the SRM, a Sun-3 workstation, or a Sun-4 workstation.

The online manual pages document all the cube command and all the NX/2 system calls, in both C and Fortran versions. They also document the Performance Analysis Tool (PAT) and the Network Queueing System (NQS). The information in the online manual pages is identical to the information in the printed reference manuals.

The source for the **man** executable software is in the public domain and is available as a compressed tar file called *man.tar.Z* by anonymous ftp from export.ssd.intel.com in the directory *pub*.

SOFTWARE INSTALLATION 2

INTRODUCTION

This chapter describes how to install the online documentation software. If you have any questions, please contact your SSD Customer Support:

1-800-421-2823 (Customer Support Response Center)
(44) 793 641 469 (in England)
Your Local Intel Sales Office (in Europe)
support@ssd.intel.com (Internet address)

The online documentation for R3.3 includes manual pages for NX/2 system calls (C and Fortran versions), the Parallel Performance Analysis Tools (PAT), and the Network Queueing System (NQS).

NOTE

Before performing any procedure in this chapter, read through the procedure completely to make certain that you understand what the procedure involves. If you have any questions before or during any procedure, please contact SSD Customer Support for help.

The procedures in this chapter use the conventions described in the preface. You should also be aware of the following conventions used in these procedures:

- The instruction "Enter ***character(s)***" means type the indicated character(s) and then press the **<Enter>** key. For example, "Enter y" means type the letter `y` and then press the key labeled `Enter`.
- In prompts, square brackets surround a default value. Pressing **<Enter>** selects the indicated default value.

SOFTWARE DEPENDENCIES

You must have installed UNIX System V Release 3.2 on the SRM before installing the Online Documentation for R3.3.

DISK SPACE REQUIREMENTS

The manual pages themselves take up about 4M bytes. The executables take up about 500K bytes. The executables are only needed on the System Resource Manager (SRM).

INSTALLING THE ONLINE DOCUMENTATION

Installation Time:	Approximately 10 minutes.
Installation Medium:	Cartridge tape (1) labeled "iPSC Online Documentation R1.0 for R3.3" (312206-001).
Information you need:	*root* password for the SRM. *root* password for workstation or NFS file server.

1. Log in to the SRM as *root*.
2. Enter ***installpkg***.
3. The following message appears:

   ```
   Are you installing from tape (y/n)?
   ```

   Enter *y*.
4. The following message appears:

   ```
   Insert Installation Tape in drive and press <RETURN>.
   ```

   Insert the installation tape labeled "iPSC Online Documentation R1.0 for R3.3" into the tape drive.
5. Press **<Enter>**.

6. Eventually, the following message appears:

```
Do you want to install all of the above packages? <y/[n]>:
```

   Enter *y*.

7. When the root prompt reappears, the tape has been successfully copied.

ACCESSING THE ONLINE MANUAL PAGES ON THE SRM

Users wishing to access the online manual pages must perform the following steps. They should not have to set a *MANPATH* variable.The default *manpath.config* file contains a **MANPATH_MAP** entry that maps */usr/ipsc/XDEV/i860/bin* to */usr/ipsc/XDEV/i860/man* and assumes that *IPSC_XDEV* is set to */usr/ipsc/XDEV*. If the online manual pages are moved to a different location, the *manpath.config* file must be edited to reflect the change.

1. Ensure that the environment variable *IPSC_XDEV* is set. On an SRM this is usually */usr/ipsc/XDEV*. If not, set it. If you use the C shell, you may want to include the **setenv** command in your *.cshrc* file.

```
% echo $IPSC_XDEV
IPSC_XDEV: Undefined variable.
% setenv IPSC_XDEV /usr/ipsc/XDEV
```

2. Also ensure that */usr/ipsc/XDEV/i860/bin* is in your execution path. For example, if you are running the C shell, you can issue the following command:

```
% set path=( $path $IPSC_XDEV/i860/bin)
```

   You may want to include the above line in your *.cshrc* file.

INSTALLING ONLINE MANUAL PAGES FOR USE IN THE CROSS-DEVELOPMENT ENVIRONMENT

If you plan to use the manual pages as part of the cross-development environment, you must copy the manual pages (but not the **man** executables) onto your workstation or NFS file server.

The manual pages are intended to reside under the directory *$IPSC_XDEV* in the directories *$IPSC_XDEV/i860/man/man1*, *$IPSC_XDEV/i860/man/man3*, and *$IPSC_XDEV/i860/man/man8*. The *whatis* file resides in *$IPSC_XDEV/man*.

1. Login to your workstation or NFS file server as *root*.

2. Ensure that *IPSC_XDEV* is defined. This value is configurable.

3. Change to the cross-development directory.

```
# cd $IPSC_XDEV
```

4. Enter the *i860* directory. If that directory does not exist, create it.

```
# cd i860
```

5. Copy the manual pages from the SRM to *$IPSC_XDEV/i860/man*. One way to do this is with **rcp**.

```
# rcp -p -r srmname:/usr/ipsc/XDEV/i860/man .
```

where *srmname* is the network name for the SRM. The directory *$IPSC_XDEV/i860/man* resides on your workstation or NFS file server. Its contents must be accessible by all users on the network who want to be able to execute **man** and obtain online documentation for iPSC/860 commands and calls. This involves mounting or automounting *$IPSC_XDEV/i860/man* on applicable workstations.

ACCESSING THE ONLINE MANUAL PAGES IN THE CROSS-DEVELOPMENT ENVIRONMENT

1. All users wanting to execute **man** for iPSC/860 commands and calls must add the directory *$IPSC_XDEV/i860/man* to their man path. For example, on a Sun workstation, you would do this by setting the *MANPATH* environment variable.

```
% setenv MANPATH "/usr/man:/vol/local/man:$IPSC_XDEV/i860/man"
```

If you are running the C shell, you may want to set *MANPATH* in your *.cshrc* file.

LIMITATIONS AND WORKAROUNDS 3

INTRODUCTION

This chapter describes known limitations and suggested workarounds for Release 1.0 of the iPSC Online Documentation for Release 3.3.

NOTE

Read the following sections carefully. Report any problems you encounter while using your iPSC system to Supercomputer Systems Division Customer Support at:

1-800-421-2823 (Customer Support Hotline)
(44) 793 641 469 (in England)
Your Local Intel Sales Office (in Europe)
support@ssd.intel.com (Internet address)

The number in brackets after each description refers to an internal SSD database. Please use that number in discussions with SSD Customer Support.

LIMITATIONS AND WORKAROUNDS

1. **man doesn't complain about multiple section numbers being specified.**
   man uses the last section in its search for the following command or call. If you specify more than one section number in a row, only the last one is used. For example, if you specify

   ```
   % man 3 csend 3f crecv
   ```

   man finds **csend()** in section 3 and **crecv()** in section 3f. If instead you specify

   ```
   % man 3 3f csend crecv
   ```

   man searches section 3f for both **csend()** and **crecv()** and ignores section 3. ***[1758]***

2. **man -M*path* fails to open man file when path is relative.**
The **-M** option on **man** cannot resolve a relative path. You must use an absolute path. For example, the following command produces an error:

```
% cd /usr/eng
% man -M ../ipsc/XDEV/i860/man crecv
Formatting page, please wait...
nroff: cannot open file ../ipsc/XDEV/i860/man/man3/crecv.3
```

The same problem occurs if *$MANPATH* contains a relative path. ***[1773]***

3. **The call eprof_toginit() is too long for man.**
The UNIX operating system that runs on the SRM has a size limit for file names. The manual page for the call **eprof_toginit()** has too long a name. This call belongs to the iPSC/860 Parallel Performance Analysis Tools. To access the manual page for this call, you must specify *eprof_togini* as the call name. ***[1782]***

```
% man eprof_togini
```