NISTIR 4491	-
National PDES Testbed Report Series	
	STEP On-Line
NATIONAL ESTBED	Information Service User's Guide



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National PDES Testbed Report Series	
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	STEP On-Line
	Information Service
U.S. DEPARTMENT OF	User's Guide
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Disclaimer:

Certain commercial products are identified in this paper in order to specify adequately the configuration management procedures. Such identification does not imply recommendation or endorsement by the National Institute of Standards and Technology, nor does it imply that the products identified are necessarily the best available for the purpose.

1 Introduction

This document describes how to access the on-line STEP (Standard for the Exchange of Product Model Data) information service provided by the National PDES (Product Data Exchange using STEP) Testbed at the National Institute of Standards and Technology (NIST). This work was funded by the Department of Defense (DOD) Computer-aided Acquisition and Logistic Support (CALS) office.

This service has been set up to provide users in the STEP development community with access to the latest STEP Parts and related documents and software. A comprehensive configuration management system will be provided in the future, as described in the Configuration Management Systems and Services Development Plan [Ressler]. However, since STEP development is already underway, and users need access to the latest materials, an interim system is being provided. The interim system described in this document provides access to only certain key materials, and offers limited functionality. Further change control, status accounting, and configuration capabilities will be provided in the comprehensive system. A more in-depth description of configuration management as it applies to the STEP development effort will be provided in [Katz1].

The STEP information service described in this document constitutes the "Interim Configuration Management Capability" described in the Configuration Management Systems and Services Development Plan [Ressler].

This document replaces the "NIST STEP Documents Configuration Management System User's Guide" [Katz2], which documented the system originally provided (April 1990) on a different computer platform.

2 Who has access to the on-line STEP information?

Configuration Management (CM) is being provided for four user groups in support of STEP development: the International Organization for Standardization (ISO); the IGES/PDES Organization (IPO); PDES, Inc. and the National PDES Testbed (hereafter referred to as "the Testbed"). The STEP Information Service is designed primarily for the members of those organizations; however, anyone who has the required hardware and software (see Section 4) may view and download the on-line materials. Each organization must communicate their configuration management needs to the Testbed through a single point of contact at their organization, the "Configuration Manager" (see Appendix A). The Configuration Manager for each organization will also be responsible for formulating and administering procedures which are appropriate to that organization, and for providing accurate and up-to-date materials for the on-line system.

All items available through the STEP information service are public domain materials. The Testbed will maintain the on-line system; however, the contributing organizations are responsible for the content and timeliness of the materials provided.

3 What items are available?

The STEP information service contains both documents and software modules.

Instructions for accessing the documents are provided in this user's guide. The latest working software modules of the Testbed's PDES Toolkit [Clark] can also be accessed by following the instructions provided here.

The methods described here provide access to read-only copies of both documents and software. The STEP information service can be used to view available materials and to download copies of items as desired.

Following is a list of categories into which the files have been divided:

- the latest STEP Parts provided to the Testbed
- PDES Toolkit source code, in a UNIX "tar" file format
- PDES, Inc. Phase I deliverables
- the Draft Proposal 1 for STEP (Dec. '88), also known as the Tokyo version of the STEP Parts.

For a detailed listing of the files by category (as of 12/04/90), please see Appendix C.

To add a new item or a new version of an item, the user should provide a machine-readable copy to that organization's Configuration Manager (see Appendix A). Each organization's Configuration Manager serves as a single point of contact to the STEP Information Service at NIST. New items will be placed on-line only when received from the Configuration Manager or someone authorized by the Configuration Manager.

4 Accessing on-line documents and source code

In the following sections, the instructions are addressed to "you," the user.

Two different access methods are being provided: a Bulletin Board System (BBS), accessible by telephone or Internet and a file transfer protocol ("anonymous ftp" 1), accessible via Internet. Instructions for both are provided below. Both methods provide access to the same copy of the materials in the on-line system.

Note: Some of the STEP files contain "include" statements. These statements are not interpreted by either the BBS or the file transfer protocol. Therefore, at this time, the user must specifically download each file individually. For example, if STEP Part1 has two "include" statements, then three separate downloads must be performed to obtain all of the text of Part1.

4.1 BBS Access Instructions

To access the on-line STEP information files through the BBS, your system must fall into one of the two following cases:

Case 1) the PC or workstation must be connected to a modem, and have some sort of communications package, such as Procomm or Smartcom, which provides one of the BBS-supported protocol (Xmodem, Ymodem, or crcXmodem). (Note: Kermit is not currently supported.)

or,

Case 2) the PC or workstation must be connected to Internet, and must have both Telnet and ftp software.

In either case, you can use the BBS to list the files stored, along with a brief description of each file. However, in case (2) you can list the files in the Telnet mode, but must use ftp to download files.

^{1. &}quot;anonymous ftp" is a special mechanism that allows users to login with the user name of "anonymous" and retrieve data.

In case (1), you dial in to the BBS, L)ist the available files, and download files to your PC or workstation using the D)ownload option from the BBS menu.

Modem speeds accepted are 300, 1200 or 2400 baud. Modems used must be "Hayes-compatible." Parity can be even or none (7-8 data bits plus one stop bit). The BBS supports emulations of TTY type terminals (not VT100, or others). The protocols supported include xmodem, ymodem, ASCII, and crexmodem.

In case (2), you may Telnet to the BBS to identify the files wanted. Alternatively, you can use ftp to copy the "dir.dir" file (which describes the files available for downloading) to your computer (example in Appendix C: BBS File List). Then you can use ftp to copy files to your computer. Instructions for each scenario are provided below.

4.1.1 BBS Access via Modem

Set-up Information:

Set up your communications package to use a BBS-compatible protocol (xmodem, ymodem, or crexmodem).

Session Instructions:

Hints that apply at any time while you are in the BBS:

- Warning: "backspace" and "delete" keys are peculiar to different machines. If the BBS doesn't respond correctly to the "delete" or "backspace" keys on your machine, try "Control-H."
- You can select [H]elp from either the CALS BBS MAIN MENU or the STEP FILES MENU.
- To get back to the next higher level menu (from having been inside one of the menu choices), you can usually enter a carriage return at any prompt (with no other input).
- The BBS prompts do not always agree with the menu being displayed (for instance, the prompt "MAIN command <?, H, I, J>?" does not reflect the choices in the STEP menu). The choices in the menus are the correct ones, regardless of what is indicated in the prompt.
- 1) Start up the communications package to connect to your modem.
- 2) Dial in to the following number: 301-948-8966

If this is a long distance call, the number should be preceded by a "1". The international dialing code for the United States is "+1".

- 3) You will see (after a minute or so) the CALS BBS welcome message (see Appendix B). You will "join" the STEP sub-bulletin board of the CALS BBS.
- 4) The BBS will prompt you:

What is your FIRST name?

Type in your first name. It will then ask:

What is your LAST name?

Type in your last name.

5) IF THIS IS YOUR FIRST TIME ENTERING THE SYSTEM:

(Skip to item (6) if you have logged in before.)

The BBS will prompt you for registration information. It will ask:

What is your State & Company?

Type in your state and company (free format). The BBS will then ask you:

C)hange FIRST name/LAST name/State & Company, D)isconnect, [R]egister?

If you want to change any of the information, type in:

C

At this point, you may re-enter the information by answering the prompts of the BBS. When you are satisfied with the entries, type in :

R

(for "Register")

The BBS will say:

Enter PASSWORD you'll use to login again (dots echo)?

Enter any alpha/numeric string up to 15 characters in length. The BBS will say:

Re-Enter PASSWORD for Verification (dots echo)?

Re-enter you password. The BBS will say:

Please REMEMBER your password

You will then be in the BBS. You will see the prompt:

More [Y]es, N)o, C)ont, A)bort, J)ump?

Type in:

Ν

You will see a list of Bulletin Menus, and the BBS will again prompt:

More [Y]es, N)o, C)ont, A)bort, J)ump?

Type in:

Ν

The BBS will then prompt:

Read what bulletin(s), L)ist, S)ince, N)ews ([ENTER] = none)?

Select the default (none) by hitting the carriage return. The BBS will respond:

Checking messages in MAIN...

If there is no mail for you (there may be mail for you if you are a CALS user), the BBS will say:

Sorry, <yourname>, No MAIL for you

6) IF YOU HAVE LOGGED IN BEFORE:

The BBS will say:

Enter PASSWORD (dots echo)?

The BBS will then say:

Checking new bulletins...

Next, the BBS will say:

Checking messages in MAIN...

7) From this point on, the instructions are the same for both newly-registered and previously-registered users. The BBS will prompt:

Check conferences for mail ([Y], N)?

Type in:

Ν

(There may be mail for you if you are a CALS user.)

8) You will then see the CALS BBS MAIN MENU (see Appendix B). The system will prompt:

MAIN command?

Type in:

J

(for "Join")

9) The BBS will display a list the of sub-boards and conferences available. The system will then ask:

What conference, L)ist, M)ain ([ENTER] quits)?

Type in:

STEP

10) The STEP FILES MENU will appear (see Appendix B).

Note: Commands which begin with [*] are not implemented.

You can list (L) the files in the BBS or download (D) files to your PC by following the instructions on the BBS menus.

11) To list the files available, type in:

L

The listing will include the date of each file and file descriptions. An example of the file list is provided in Appendix C. Please note that the contents of the list will change as new files are placed online.

12) Return to the STEP FILES MENU by typing in:

Q

To download a file (copy a file from the BBS to your computer), from the STEP FILES MENU, type in:

D

13) Follow the instructions on the BBS to download your file. You will need to select the mode (Xmodem, Ymodem, or crcXmodem). When the BBS says:

Ready to download

you must return to your communication package's menu and select the option to initiate a file transfer. You must have selected the same protocol in your communications package that you are directing the BBS to use. You should get an on-going report of transfer status from the BBS. You will get a confirmation message when the transfer is complete.

14) To exit the BBS, type in:

 \bigcirc

(for Quit).

The BBS will prompt:

QUIT C)onference, S)ession, or section to F)ile, M)ain?

Type in:

S

You have now completed your communications session. Exit from your communications package to return to your operating system.

4.1.2 BBS Access through Internet

Session Instructions:

Hints that apply at any time while you are in the BBS:

- Warning: 'backspace' and 'delete' keys are peculiar to different machines. If the BBS doesn't respond correctly to the 'delete' or 'backspace' keys on your machine, try Control-H.
- You can select [H]elp from either the CALS BBS MAIN MENU or the STEP FILES MENU.
- To get back to the next higher level menu (from having been inside one of the menu choices), enter a carriage return at any prompt (with no other input).
- The BBS prompts do not always agree with the menu being displayed (for instance, the prompt
- "MAIN command <?, H, I, J>?" does not reflect the choices in the STEP menu). The choices in the menus are the correct ones, regardless of what is indicated in the prompt.
- 1) Type in:

telnet calsbbs.cme.nist.gov

(**Note**: If your site does not have domain name service, you will need to type in the Internet numerical address of the BBS. If this is the case, type in:

telnet 129.6.32.173

2) You will see (after a minute or so) the CALS BBS welcome message (see Appendix B).

You will be using the STEP sub-bulletin board of the CALS BBS.

3) The BBS will prompt you:

What is your FIRST name?

Type in your first name. It will then ask:

What is your LAST name?

Type in your last name.

4) IF THIS IS YOUR FIRST TIME ENTERING THE SYSTEM:

(Skip to item (5) if you have logged in before.)

The BBS will prompt you for registration information. It will ask:

What is your State & Company?

Type in your state and company (free format). The BBS will then ask you:

C)hange FIRST name/LAST name/State & Company, D)isconnect, [R]egister?

If you want to change any of the information, type in:

С

You may re-enter the information by answering the prompts of the BBS. When you are satisfied with the entries, type in :

R

(for "Register")

The BBS will say:

Enter PASSWORD you'll use to login again (dots echo)?

Enter any alpha/numeric string up to 15 characters in length. The BBS will say:

Re-Enter PASSWORD for Verification (dots echo)?

Re-enter you password. The BBS will say:

Please REMEMBER you password

You will then be in the BBS. You will see the prompt:

More [Y]es, N)o, C)ont, A)bort, J)ump?

Type in:

Ν

You will see a list of Bulletin Menus, and the BBS will again prompt:

More [Y]es, N)o, C)ont, A)bort, J)ump?

Type in:

Ν

The BBS will then prompt:

Read what bulletin(s), L)ist, S)ince, N)ews ([ENTER] = none)?

Select the default (none) by hitting the carriage return. The BBS will respond:

Checking messages in MAIN...

If there is no mail for you (there may be mail for you if you are a CALS user), the BBS will say:

Sorry, <yourname>, No MAIL for you

5) IF YOU HAVE LOGGED IN BEFORE:

The BBS will say:

Enter PASSWORD (dots echo)?

The BBS will then say:

Checking new bulletins...

Next, the BBS will say:

Checking messages in MAIN...

6) From this point on, the instructions are the same for both newly-registered and previously-registered users. The BBS will prompt:

Check conferences for mail ([Y], N)?

Type in:

Ν

(There may be mail for you if you are a CALS user.)

7) You will then see the CALS BBS MAIN MENU (see Appendix B). The system will prompt:

```
MAIN command?
```

Type in:

J

(for "Join")

8) The BBS will display a list the of sub-boards and conferences available. The system will then ask:

```
What conference, L)ist, M)ain ([ENTER] quits)?
```

Type in:

STEP

9) The STEP FILES MENU will appear (see Appendix B).

Note: Commands which begin with [*] are not implemented.

You can list (L) the files in the BBS or download (D) files to your PC by following the instructions on the BBS menus.

10) To list the files available, type in:

L

The listing will include the date of each file and file descriptions. An example of the file list is provided in Appendix C. Please note that the contents of the list will change as new files are placed online.

11) Return to the STEP FILES MENU by typing in:

Q

- 12) **Note:** Despite what the menus say, to download a file, you must quit the BBS and disconnect from Telnet. Before quitting the BBS, be sure to make note of the names of the files that you want to download. Then, follow the instructions in section 4.2, "FTP Access through Internet" (page 9), to use **anonymous ftp** to copy a file to your PC or workstation.
- 13) To exit the BBS, type in:

Q

(for Quit).

The BBS will prompt:

QUIT C)onference, S)ession, or section to F)ile, M)ain?

Type in:

S

4.2 FTP Access through Internet

To access the on-line STEP information files through ftp, your system must meet the following criteria:

- 1) your site must be connected to Internet, and
- 2) your computer must have some form of ftp software.

Session Instructions:

1) Type in:

ftp durer.cme.nist.gov

(Note: If your site does not have domain name service, you will need to type in the Internet numerical address of the disk called "durer." If this is the case, type in:

```
ftp 129.6.32.4
```

2) At the Name prompt, type in:

```
anonymous
```

- 3) At the Password prompt, type in your last name.
- 4) To get a list of ftp options, at any time while in ftp, type in:

help

5) To get into binary mode (recommended to make transfers faster, and *essential* for downloading binary files), type in:

hin

Note: Some systems may require you to type in the full word "binary," or even "binary mode."

6) Type in the following to get to the directory where the STEP information is located:

```
cd pub/step/dload
```

("dload" is the BBS's shorthand for "download".)

7) Type in the following command to view a list of files on-line:

ls

Wildcard substitutions are allowed. For example, to list all the file names beginning with the letter "a", type in:

```
ls a*
```

To display a "long" listing, which shows date of file creation and size in bytes, type in:

ls -

To get a "long" listing in time order (a good way to see what has changed recently), type in:

Is -It

Note: To get more complete information about the files available, you may want to download the file called "dir.dir", by following the instructions in step (9) below. The contents of the "dir.dir" file are displayed when you do a L)ist command from the STEP BBS. An example appears in Appendix C: BBS File List.

8) Type in the following command to download a copy of a file to your current directory:

get <file-name>

substituting the name of the file that you want for <file-name>,

For example,

get drafting

9) To copy multiple files at a time, use the mget command:

mget <file-name list>

The <file-name list> can be in the form of a regular expression, just like the ones used by the "ls" command in step (7) above. If you are downloading a large number of files and don't want to have to answer "yes" to each "mget" command prompt, you can toggle into the non-prompt mode by entering the command:

prompt

10) When you are done, type in the following command to exit ftp and return to your operating system:

quit

(Note: Some packages require "bye" instead.)

5 Acronyms

BBS: Bulletin Board System

CALS: Computer-aided Acquisition and Logistic Support

CM: Configuration Management

FTP: File Transfer Protocol IPO: IGES/PDES Organization

ISO: International Organization for Standardization

PC: Personal Computer

PDES: Product Data Exchange using STEP

PDES, Inc.: A consortium of companies involved in the development of the STEP standard.

STEP: The acronym used to refer to the "Standard for the Exchange of Product Model Data"

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7 Acknowledgments

Many thanks to Rob Densock for his patient help in setting up the network environment, and to Dave Bettwy, for setting up and supporting the sub-bulletin board.

Appendix A: Configuration Managers

Note: These individuals serve as a single point of contact for their organization regarding Configuration Management. They are responsible for providing the Testbed with CM requirements and items to be configured.

	ISO:	Nigel Shaw (Acting)	0244 520444 (international code 44) nshaw@mcimail.com
11)	IPO:	Bill Conroy (Acting)	(301) 975-3981 (international code conroy@cme.nist.gov
11)	PDES, Inc.:	Larry Karns	(803) 760-3278 (international code LKARNS@mcimail.com
11)	Testbed:	Michael McLay	(301) 975-4099 (international code mclay@cme.nist.gov

Appendix B: BBS Menus

Note: The screen images provided here are examples. Items such as timestamps and names reflect the information that was current at the time these "snapshots" were taken. Therefore, the screens you see when you enter the BBS will be similar in format, but may vary in the details they show.

CALS BBS Internet	Terminal Server	CALSBBS	129.6.32.173					
WELCOME TO CA	LS BBS - NODE 6							
* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * *	* * * * * * * * * * * * * * *					
WELCOME TO THE CALS ELECTRONIC BULLETIN BOARD								
	FEATURING TW	O SUBOARDS (us	e [J]oin)					
	1) THE STEP STANDARDS ORGANIZ	ATION'S FILE LIBR	ARY					
	2) THE IGES/PDES ORGANIZATION	'S NEW BBS						
	Phone Line & DDN/Arpanet/Milne	et Access:						
	> 301-948-8966 (4 line rotary)							
	> Telnet to calsbbs.cme.nist.g	ov (two ports)						
	CALS SYSOP is Dave Bettwy		STEP SYSOP					
	Voice: 301-975-3561		Voice: 301-975-3519					
	email: betwy@cme.nist.gov		IPO SYSOP					
			Voice: 301-975-3982					
* * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * *	* * * * * * * * * * * * * * *					

	>>> CALS BB	S MAIN MENU <<<		
MAIL	SYSTEM	UTILITIES	ELSEWHERE	
[E]nter Messages	[A]ns. Question.	[H]elp (or?)	[F]iles	
[K]ill Messages	[B]ulletins	[J]oin Conference	[G]oodbye	
[P]ersonal Mail	[C]comment to Sysop	[V]iew Conf. Mail	[Q]uit	
[R]ead Messages	[I]nitial Welcome	[X]pert on/off	[U]tilities	
[S]can Messages	[W]ho's on			
[T]opic of Msgs				
Current time: 3:07 PN	Л Minutes re	emaining: 69	Security: 5	
MAIN command <	> ?			
				+
* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * *	
Welcon	ne to the STEP FILES LIBRARY	Y. To view the files a	vailable	*
for dow	nloading, Select the "L" op	otion from the menu an	d then	*
press "L	" a second time.			*
				*
	LIBRARIANS - S	Susan Katz		*
	- 9	Scott Bodarky		*
* * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * *	* * * * * * * * * * * * *	

>>> STEP FILES MENU <<<						
TRANSFER	INFORMATION	UTILITIES	ELSEWHERE			
[D]ownload file	[L]ist files	[H]elp (or ?)	[G]oodbye			
[*]ersonal dwnld	[N]ew files	[X]pert on/off	[Q]uit			
[*]pload file	[*]earch files					

Current time: 11:38 AM Minutes remaining:48

STEP Subboard

MAIN command < --- > ?

Appendix C: BBS File List

Example (12/4/90)

STEP FILES AVAILABLE FOR DOWNLOADING

You can retrieve any of these files, while in the F) ile section, by entering:

d; file.ext
where "file.ext" is the File Name and Ext. as listed below.

Filename Ext	Size	Date	Descrip	tion
P1-1	635	10-16-90	Part 1,	README
P1-2	70230	10-30-90	Part 1,	TEX
P11-1	692	10-16-90	Part 11,	README
P11-2	1719	3-01-90	Part 11,	ANNEXA.TEX
P11-3	43889	5-23-90	Part 11,	ANNEXB.TEX
P11-4	63843	5-23-90	Part 11,	ANNEXC.TEX
P11-5	992	2-21-90	Part 11,	ANNEXCXX.TEX
P11-6	37631	5-23-90	Part 11,	ANNEXD.TEX
P11-7	1495	4-03-90	Part 11,	ANNEXE.TEX
P11-8	11246	5-22-90	Part 11,	EXPRESS.SSN
P11-9	1728	2-28-90	Part 11,	GTREE1.TEX
P11-10	29497	2-26-90	Part 11,	NEWISO.STY
P11-11	22074	5-23-90	Part 11,	SSEXP.TEX
P11-12	4807	5-22-90	Part 11,	STEPTTL.TEX
P11-13	2172	4-27-90	Part 11,	WHO.TEX
P11-14	7857	5-23-90	Part 11,	X00.TEX
P11-15	16426	5-23-90	Part 11,	X02.TEX
P11-16	3737	5-23-90	Part 11,	X03.TEX
P11-17	4466	5-22-90	Part 11,	X04.TEX
P11-18	43665	5-23-90	Part 11,	X05.TEX
P11-19	2586	5-22-90	Part 11,	X06.TEX
P11-20	17159	5-23-90	Part 11,	X07.TEX
P11-21	45954	5-23-90	Part 11,	X08.TEX
P11-22	10827	5-23-90	Part 11,	X09.TEX
P11-23	16451	5-23-90	Part 11,	X10.TEX
P11-24	2502	3-14-90	Part 11,	X11.TEX
P11-25	12777	5-23-90	Part 11,	X11A.TEX
P11-26	4048	5-22-90	Part 11,	X11B.TEX
P11-27	7317	5-23-90	Part 11,	XCOMM.TEX

P11-28	947	5-23-90	Part 11, XLRMA.TEX
P11-29			Part 11, ERATA.TEX
P21-1			Part 21, README
P21-2	77411	9-19-90	Part 21, PART1
P21-3	59284	9-19-90	Part 21, PART2
P31-1			Part 31, README
P31-2	762	10-30-90	Part 31, TITLE.TEX
P31-3	2626	10-30-90	Part 31, FOREWORD.TEX
P31-4	1036	10-30-90	Part 31, PART 31.TEX
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P31-7	33388	10-30-90	Part 31, ANNEX_B.TEX
P31-8	2012	10-30-90	Part 31, ANNEX_C.TEX
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P205-15	6247	10-02-90	SADT.A-0, (Mac)

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                                SADT.A2213422, (Mac)
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expsql2.com	15720	1-30-90	PDES	Inc.,	Phase	Ι	deliverables
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expsql4.com	14243	1-30-90	PDES	<pre>Inc.,</pre>	Phase	Ι	deliverables
expsql5.com	37964	1-30-90	PDES	<pre>Inc.,</pre>	Phase	Ι	deliverables
expsql6.com	15279	1-30-90	PDES	<pre>Inc.,</pre>	Phase	I	deliverables
expsq17.com	30966	1-30-90	PDES	<pre>Inc.,</pre>	Phase	I	deliverables
expsql8.com	14017	1-30-90	PDES	<pre>Inc.,</pre>	Phase	Ι	deliverables
expsq19.com	13033	1-30-90	PDES	<pre>Inc.,</pre>	Phase	Ι	deliverables
ffdraft.wp5	339336	2-09-90	PDES	<pre>Inc.,</pre>	Phase	I	deliverables
finalrpt.wp5	87226	2-24-90	PDES	<pre>Inc.,</pre>	Phase	Ι	deliverables
geom1a.exe	505242	4-17-90	PDES	<pre>Inc.,</pre>	Phase	Ι	deliverables
geom1b.exe	598004	6-01-90	PDES	<pre>Inc.,</pre>	Phase	Ι	deliverables
guideps.com	33728	1-30-90	PDES	<pre>Inc.,</pre>	Phase	Ι	deliverables
intdocv2.wp5	178044	2-26-90	PDES	<pre>Inc.,</pre>	Phase	I	deliverables
presentn.w50	126208	2-22-90	PDES	<pre>Inc.,</pre>	Phase	I	deliverables
pscmver1.w50	545044	4-18-90	PDES	<pre>Inc.,</pre>	Phase	Ι	deliverables
psimver1.lzh	852353	4-18-90	PDES	<pre>Inc.,</pre>	Phase	Ι	deliverables
tolrncv1.exe	375714	4-17-90	PDES	<pre>Inc.,</pre>	Phase	I	deliverables
tolrncv2.exe	431947	4-17-90	PDES	<pre>Inc.,</pre>	Phase	Ι	deliverables
topicals.com	35132	3-08-90	PDES	<pre>Inc.,</pre>	Phase	I	deliverables
topl1a.w50	368139	4-18-90	PDES	<pre>Inc.,</pre>	Phase	Ι	deliverables
toplver1.w50	290373	4-18-90	PDES	<pre>Inc.,</pre>	Phase	Ι	deliverables
tstrptal.w50	129642	4-18-90	PDES	Inc.,	Phase	I	deliverables

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Deshape	5261	10-30-90	General Resources, Aggregations
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Elecfun	8192	10-30-90	Application Resources, Electrical
Electric	317	10-30-90	Application Resources, Electrical
Features	8192	10-30-90	General Resources, Shape2
FEM	16384	10-30-90	Application Resources, Finite Element Model
Geometry	8192	10-30-90	General Resources, Shape
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ISOcmds	1205	10-30-90	LaTeX Formatting and Style Files
ISOsty	8129	10-30-90	LaTeX Formatting and Style Files
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Part102	2336	10-30-90	Application Resources, Ships Structure
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Part43	463	10-30-90	General Resources, Shape2
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Part45	429	10-30-90	General Resources, Material
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PSCM	34891	10-30-90	General Resources, Aggregations
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Shape	8192	10-30-90	General Resources, Shape2
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Structure			
Solids	16384	10-30-90	General Resources, Shape
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Title102	471	10-30-90	Title Page for Part102
Title103	478	10-30-90	Title Page for Part103
Title104	478	10-30-90	Title Page for Part 104
Title41	477	10-30-90	Title Page for Part41
Title42	459	10-30-90	Title Page for Part42
Title43	461	10-30-90	Title Page for Part43
Title44	466	10-30-90	Title Page for Part44
Title45	462	10-30-90	Title Page for Part45
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Kinematics	-0-	10-30-90	New item to be added at a later
time			