HP Software Revision Controller User's Guide

HP Part No. 30234-90001
Printed in USA 11/88

E1188

Printing History

New editions are complete revisions of the manual. Update packages, which are issued between editions, contain additional and replacement pages to be merged into the manual by the customer. The dates on the title page change only when a new edition or a new update is published. No information is incorporated into a reprinting unless it appears as a prior update; the edition does not change when an update is incorporated.

The software code printed with the date indicates the version level of the software product at the time the manual or update was issued. Many product updates and fixes do not require manual changes and, conversely, manual corrections may be done without accompanying product changes.

MPE/V	First Version	November 1988	30234 A.00.00
MPE/XL	First Version	November 1988	30328 A.00.00

Preface

HP Software Revision Controller (HP SRC) is an application that manages generations of changes to files in an HP 3000 environment. HP SRC functions with either standard ASCII files or binary files and is ideally suited to tracking frequently modified files in which early revisions must be preserved.

This guide is intended for programmers and system administrators who install or use HP SRC software. It is suggested that new HP SRC users read the first chapter of this guide, then read the tutorial *Learning HP SRC* (30234-90002). If you are setting up a new HP SRC environment, then proceed to the *HP SRC Implementation Guide* (30234-90003).

The purpose of each chapter is as follows:

Chapter 1	This chapter provides an overview of the purpose and function of HP SRC. Some of the topics discussed include the revision control process and the files that HP SRC manages.
Chapter 2	This chapter provides procedures that enable you to perform basic HP SRC tasks. Some of the topics discussed include the structure of HP SRC security, checking files into and out of the HP SRC environment, and precautions regarding file usage and multiple access.
Chapter 3	This chapter provides procedures that enable you to use the branching and merging features of HP SRC. Some of the topics discussed include creating a branch, merging a branch, and resolving file conflicts.
Chapter 4	This chapter provides reference modules for all HP SRC commands in alphabetical order. Each module provides the syntax, capability classes, description, explanation of optional parameters, and one or more usage examples for each command. The command modules are preceded by introductory information about general command usage, including command syntax and keyword usage.
Appendix A	This appendix lists all HP SRC error messages, their cause, and suggested corrective action.
Appendix B	This appendix provides information about recovering HP SRC from system crashes by restoring essential system files.
Appendix C	This appendix provides information about using a job control word to construct multiple-step UDCs or batch job streams.

Conventions

The following conventions are used in this manual:

[ ]	Brackets surround optional command parameters.
Italics	Italic letters shown in text indicate parameters or provide emphasis for special terms.

Contents

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HP SRC OVERVIEW

HP Software Revision Controller (HP SRC) is a sophisticated revision control system that eliminates many typical software development file management problems, enabling you to effectively manage file revisions for team projects. HP SRC is particularly desirable for software development applications in which the following issues are of a major concern:

- Concurrent maintenance
- Shared files
- Revision control

Concurrent maintenance environments can typically cause potential problems if one user does not inform the other user of file changes. HP SRC handles concurrent maintenance issues by enabling two users to access the same file concurrently and maintain separate revisions until they want to merge their enhancements. HP SRC makes it readily apparent when concurrent maintenance occurs. In addition, HP SRC provides utilities to help merge the changes from one user's file to another user's file.

Shared file environments can typically cause fixes or enhancements to be lost if two or more users modify the same file at the same time. HP SRC prevents this from occurring by allowing only one user to modify a particular revision of a file at a given time. In addition, HP SRC enables multiple users to modify separate revisions of the same file at the same time. Features are provided to assist in merging these modifications.

HP SRC enables you to recover earlier file versions. If you modify a file that causes a problem with the application being developed, you can regenerate and use an earlier version of the file until the file is fixed. This enables other developers to continue working and testing while the problem file is being fixed.

Many other HP SRC features assist you in the software development process. Some of these noteworthy features are:

- Easy retrieval of all files associated with a particular version of the application being developed
- Security that enables you to selectively authorize certain users to modify files in the development environment
- Reports on the history of files in the HP SRC environment using various selection criteria

HP SRC maintains files in a particular format to maintain information about the files, such as the owner of a locked file and the nature of file changes. Before you begin using HP SRC, it is beneficial to understand the HP SRC environment. The remainder of this chapter explains the HP SRC environment and provides information about how HP SRC handles various types of MPE files.

The HP SRC Environment

You create an HP SRC environment when you check in a file for the first time. This initiates the environment and also enables you to authorize other users to access the environment. The file remains in the environment unless you delete all of the revisions of the file from the environment. Once the environment is created after you check in a single file, you can add other files as desired by checking in each file to be added. .

After you initially check a file in to the environment, HP SRC operates similarly to checking out and checking in a library book. Essentially, you check out a file to make changes and then check it back in to HP SRC as a new revision.

More than one HP SRC environment can exist per system. You can create an environment for each group of a given account. The default environment for an account is the PUB group. Chapter 2 provides information about creating environments in other groups.

Revision Control Process

HP SRC maintains file revisions in a tree structure. When you check in a file to HP SRC for the first time, HP SRC saves the file as the first revision, revision 1.1. (The first digit represents the *release number* and the second digit represents the *level number.*) This revision initiates the *trunk* of the tree as shown in figure 1-1.

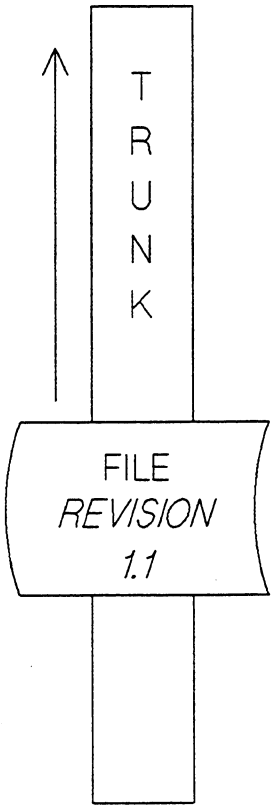

Figure 1-1. Checking In A File

After you check in a file to the HP SRC environment, or if it is already in the environment, you can modify the file by checking it out from the environment. You can then use a standard text editor or word processor to make the desired changes. When finished, you check in the file to HP SRC just as you initially checked it in.

When you check the file in, HP SRC creates a *Delta* file that stores the full text of the new revision (1.2), called the *head revision.* The Delta file also contains the differences between revisions 1.1 and 1.2 (for ASCII files). The differences enable HP SRC to reproduce the full text of earlier revisions.

To construct the full text of an earlier revision, HP SRC begins with the head revision text and then incorporates each of the prior Delta versions until it encounters the version. After incorporating this version, the process stops.

Figure 1-2 shows the creation of revision 1.2 from revision 1.1.

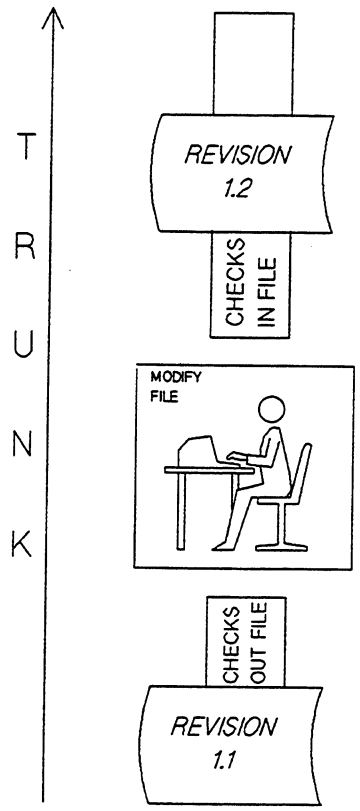

Figure 1-2. Creating A New Revision

HP SRC File Management

HP SRC manages the following types of files within the HP SRC environment:

- Working files
- Stat file
- Delta files

When you check in a file to HP SRC for the first time, HP SRC copies the file from your working group to the Delta file in the HP SRC environment as revision 1.1 and purges the working group file.

Delta files reside in the same group as the Stat (SRCSTAT) file, which HP SRC automatically creates at initial check-in. The Stat file keeps track of all of the HP SRC files in the environment and controls the users who access those files. The user access list in this file determines which users can read and update revisions.

When you check out a file to edit it, HP SRC retains revision 1.1 and copies this revision to your working group. HP SRC also places a *lock* on the revision of the file so that no other user can check out that revision. When you have finished editing and want to check the file back in, HP SRC checks in the file as revision 1.2, removes the lock, and purges the working file again.

The complete text of revision 1.2 is stored in the Delta file. If revision 1.1 was an ASCII file, HP SRC stores the differences between the two revisions as revision 1.1. This Delta file is called a *differenced* file. If revision 1.1 was a binary file, HP SRC stores the entire file, rather than the differences. This Delta file is called an *archived* file.

Delta Differenced Files

The differenced method of storing files applies to ASCII files. A differenced Delta file stores only the differences between revisions along with instructions that enable HP SRC to recreate a previous revision from the current revision.

The naming convention for differenced files is S*nnnnn*RC, where *nnnnn* represents a unique number that HP SRC assigns.

Delta Archived Files

The archived method of storing files applies to binary files, such as USL files, which are not appropriate for differencing. Archiving involves copying each revision of a file to a separate archive file whose name is kept in the Delta file in lieu of the text or a set of Delta instructions.

HP SRC archives binary files for the following reasons:

- The continuous, non-linear nature of the information in a USL file is not compatible with differencing.
- USL files, other binary files, and even some atypical ASCII files are extremely sensitive to any changes in the detailed structure of a file.
- A risk is involved in attempting to store the data and the file structure separately and then subsequently reassemble them.

When you check in a file to HP SRC for the first time, HP SRC checks the file to determine if it can be stored as a differenced revision. If it cannot be stored as a differenced revision,

HP SRC displays a message explaining why archiving is necessary, and then places the first revision in an archived file.

Naming Convention. The naming convention for archived files is A*nnnnn??*, where *nnnnn* represents a unique number that HP SRC assigns during initial check-in, and *??* represents a two-letter assigned sequence code. For instance, if the file name assigned by HP SRC at initial check-in, then the archived file name is A30000AA for the first check-in, A30000AB for the second check-in, etc.

Archiving Other Non-Binary Files. HP SRC may also archive a file even if it is not a binary file. For instance, HP SRC cannot accommodate file record lengths that exceed 256 bytes. Also, the file may have user labels that might be lost in the differencing process. If the file is not a binary file but still must be archived, HP SRC prompts you to verify whether or not you want to proceed with the archiving process.

Branching and Merging

HP SRC accommodates users working on the same revisions simultaneously by providing a branching and merging mechanism. Programmers, software developers, and others can use branching and merging to test new ideas or resolve existing problems without interfering with mainstream development.

Some of the primary applications in which branching and subsequent merging is appropriate are:

- Programmers developing a new software release discover a bug that must be fixed before release. After fixing the bug, the changes must be incorporated into the new release. The programmers can create a branch at the released revision on the trunk, use the branch for fixes, and then merge the branch into the trunk prior to the new release.
- Programmers must merge local modifications to a file with a new release from the vendor. They can make the local modifications on the trunk, check in the new release as a branch at the point of the old release, then merge it with the local modifications.
- A project team decides to implement a parallel development strategy. They can create a branch for each development path, then selectively merge them into the trunk, if appropriate. Otherwise, they can maintain the branch in parallel.

Figure 1-3 illustrates how a user might work on a program enhancement or a solution to a problem.

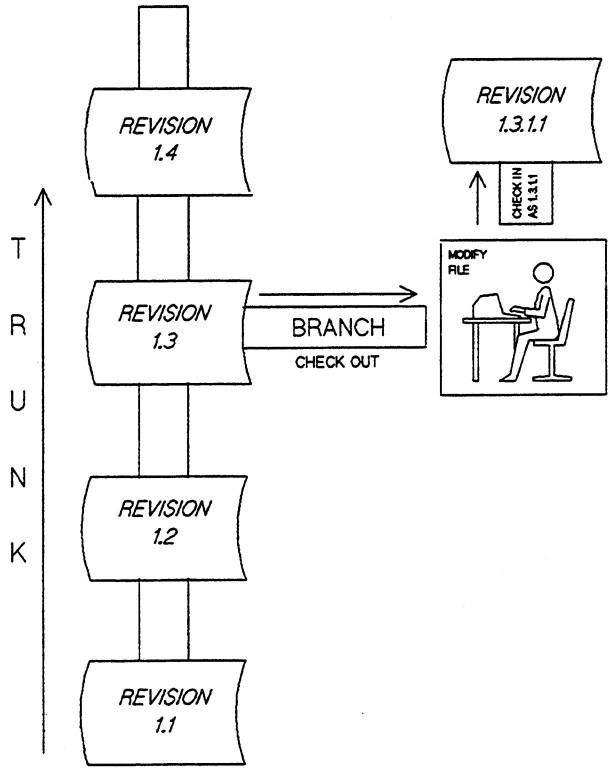

Figure 1-3. Branching From A Revision

The figure above shows that a developer needs to work on revision 1.3 without interfering with others working on the head revision. The solution to this problem is to create a *branch* from the trunk revision.

The developer creates a *branch* at revision 1.3 by checking out revision 1.3, making the changes, then checking the revised file back in. HP SRC assigns a branch revision number to the file. A branch revision number includes two additional digits, i.e., 1.3.*1.1*. The first digit represents the branch number; the second digit represents the branch level number. If the branch revision is successful, the developer can merge the branch back into the mainline development trunk.

Figure 1-4 shows the process involved in merging bug fixes into the mainline development trunk. In this example, developers have branched at the released revision and worked in tandem with the group doing the enhancements. Then they incorporated the branches into the trunk and produced a new consolidated revision.

Refer to chapter 3 for more information about branching and merging.

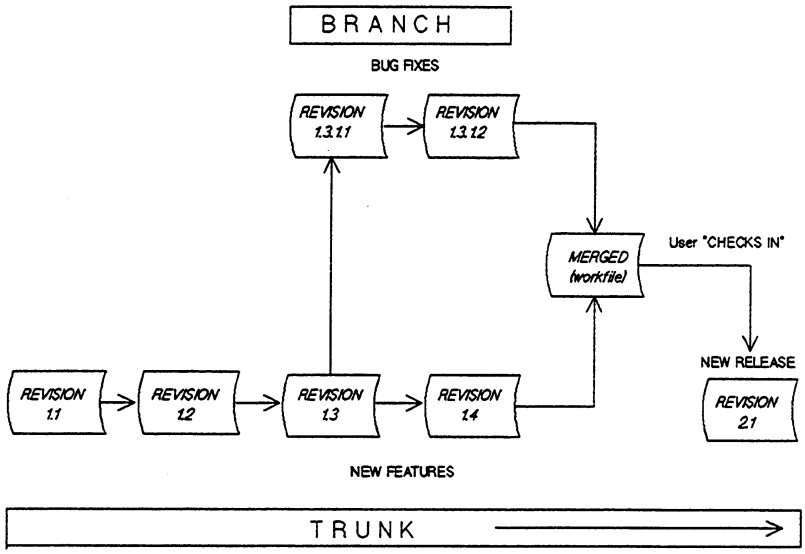

Figure 1-4. Merging Bug Fixes Into the Trunk

MPE Files and HP SRC

This section explains how HP SRC handles the following MPE files:

- ASCII files
- Binary
- Numbered
- Message
- Circular
- Files with file codes
- Carriage control
- KSAM
- Privileged
- Files with lockwords

The section also provides information about how HP SRC handles file attributes.

ASCII Files

HP SRC keeps fixed ASCII files with records up to a length of 256 bytes as differenced files. Files with records exceeding 256 bytes are archived.

HP SRC keeps variable length records and creates the Delta file as a fixed file with the record length equal to that of the variable definition. (A maximum record length of 256 applies, unless the files are archived.) During check-out, the working file is created as a variable length file with the same record length as the checked-in file.

Binary Files

You can check in and check out binary files. As mentioned earlier, binary files are archived, rather than differenced. Since these files are copied in their entirety, HP SRC cannot expand keywords for these files. (Refer to chapter 4 for information on keyword expansion.)

Numbered Files

When using numbered files, decide whether or not the numbers are significant and whether they should be maintained unchanged in the file. For information about how HP SRC handles numbered files, refer to the Nummask option of the Chkin command description in chapter 4.

Message Files

You cannot check in message (IPC) files.

Circular Files

You can check in circular files, although under certain circumstances, the file limit may be increased by an arbitrary number of records. For example, the original limit may not have been enough to contain expanded keywords.

Files with File Codes

You can check in coded file types. The codes are stored and reapplied when the file is checked out.

Carriage Control Files

You can check in files containing a carriage control character (file types FAC and VAC). The file has the same file type when checked out. The carriage control character remains in the file as the first byte in each record.

KSAM Data and Key Files

You can check in KSAM files, and therefore, COBOL copy libraries. HP SRC keeps KSAM data file and key files as archived files.

These files are processed as one logical file. If you check in either a KSAM data file or a KSAMK key file, HP SRC checks in both files under the specified file name. You can then retrieve both files with a single check-out using the name you specified at the initial check-in.

HP SRC enables you to check in a KSAM file using either the data or key file name. Once you have checked in the file using either name, that is the only name you can use to reference the KSAM file pair in the HP SRC environment.

Privileged Files

You cannot check in privileged files. If you attempt to do so, an error message appears.

Files with Lockwords

If you check in a file with a lockword, HP SRC prompts for the lockword. The lockword is then dropped. Any other action performed on the file is based on the attributes of the file as described above. The lockword may not be entered as part of the working file name.

File Attributes

The following sub-sections explain how HP SRC handles Delta file attributes and how HP SRC retains attributes for differenced and archived files.

Delta File Attributes

HP SRC creates the Delta file (S*nnnnn*RC) when you check in a working file for the first time to the HP SRC environment. The Delta file is always fixed and acquires the record size of the input with one exception. If the input file is less than 80 bytes, the Delta file defaults to 80 bytes.

The checked-out working file always has the same record length of the checked-in working file. If the checked-in file is ever greater (i.e., the working file record length is increased), HP SRC expands the Delta file record length to handle the larger records.

Retention of Differenced File Attributes

File attributes for differenced files are stored at check-in and reapplied at check-out to recreate the file as close as possible to the check-in version. The file limit is retained for fixed-length record files as long as Log keyword expansion does not cause the end-of-file to exceed the file limit. If this occurs, the file limit is set at end-of-file. Output length for variable-length record files is always set at the minimum value in order to contain the output file.

User labels are not retained for differenced files. Therefore, these labels are lost unless the file is checked in with the Fullmask option. The Fullmask option prevents the loss of user labels. (Refer to the Chkin command in chapter 4 for information about the Fullmask option.)

Retention of Archived File Attributes

All file attributes and user labels, except date, are retained for archived files. Revisions of archived files are copied to identical files with coded names using FCOPY.PUB.SYS and can be retrieved with their original file characteristics unchanged.

MPE/XL dynamically calculates the maximum number of extent attributes for a file. Therefore, HP SRC cannot retain extent attributes for MPE/XL.

2

USING HP SRC

This chapter provides information about performing basic HP SRC tasks that enables you to use the product effectively.

The chapter discusses the following basic tasks:

- Setting the UDC catalog for HP SRC
- Initially checking in a file to set up security
- Adding users names to the user access list
- Checking in a file to the HP SRC environment
- Checking out a revision for modification
- Checking in the modified revision

Other useful tasks described are:

- Obtaining file status information
- Retrieving the text of a revision
- Comparing the text of two revisions
- Deleting revisions

The chapter also provides advisory information about multiple access and using files in the HP SRC environment.

Establishing Security Capabilities

HP SRC security relies on both internal security and MPE security to maintain file integrity. Proper security for an HP SRC environment is established by setting HP SRC and MPE security capabilities. You can first set HP SRC security capabilities and then MPE security capabilities or vice versa.

The following sections provide background information about HP SRC and MPE security that is important to understand before you proceed with basic tasks, including setting up HP SRC security.

HP SRC Security

The HP SRC access list establishes the appropriate HP SRC security capabilities. Every HP SRC user must have an assigned security class in order to read or write to any HP SRC files. You can assign security classes to users by adding them to the access list, along with their respective security classes.

A user with Admin (administrator) capability is the only person authorized to add users to the access list. You obtain Admin capability by being the first person to check in a file to HP SRC, or by having a user with Admin capability assign Admin capability to you. When you

initially check in a file, HP SRC creates the Stat file and establishes you as the administrator of the HP SRC environment.

An Admin user can assign the following security classes:

- Reader
- Author1
- Author2
- Librarian
- Admin

These classes are hierarchical in that a higher capability class consists of the next lower capability class with additional capabilities. For example, the Author1 class includes all Reader class capabilities plus additional capabilities. Similarly, the Admin class includes all capabilities of the previous four classes plus additional capabilities. Table 2-1 shows the five security classes and the HP SRC commands permitted for each class.

Table 2-1. Security Classes and Corresponding HP SRC Commands

Reader	Author1	Author2	Librarian	Admin
Copylog	Copylog	Copylog	Copylog	Copylog
Copyrev	Copyrev	Copyrev	Copyrev	Copyrev
Listdiff	Listdiff	Listdiff	Listdiff	Listdiff
Listrev	Listrev	Listrev	Listrev	Listrev
Listtree	Listtree	Listtree	Listtree	Listtree
Listusers	Listusers	Listusers	Listusers	Listusers
Srchelp	Srchelp	Srchelp	Srchelp	Srchelp
	Adddiff	Adddiff	Adddiff	Adddiff
	Chkout	Chkout	Chkout	Chkout
	Deldiff	Deldiff	Deldiff	Deldiff
	Lock	Lock	Lock	Lock
	Unlock	Unlock	Unlock	Unlock
		Addsym	Addsym	Addsym
		Chgdesc	Chgdesc	Chgdesc
		Chglog	Chglog	Chglog
		Chgowner	Chgowner	Chgowner
		Chgprefix	Chgprefix	Chgprefix
		Chkin	Chkin	Chkin
		Chkincopy	Chkincopy	Chkincopy
		Chkinplace	Chkinplace	Chkinplace
		Copydelta	Copydelta	Copydelta
		Delrev	Delrev	Delrev
		Delsym	Delsym	Delsym
		Listdelta	Listdelta	Listdelta
				Adduser
				Chguser
				Deluser
				Recoverstat

Reader Class

A user with Reader capability can only read files or:

- Copy file revisions
- Copy the log text
- List information about the revision control environment

A Reader user is not allowed to execute any commands that change files in the HP SRC environment for files that have already been checked in. A Reader user also cannot make any changes to the environment, such as the user access list.

Author1 Class

The primary difference between Author1 and Author2 is that an Author1 user cannot check in files. An Author1 user can check out and modify files but cannot check in files. To check in modified files, someone with Librarian capability would have to check them in. This is

desirable in programming departments where only the lead programmer checks in files after approving all modifications to the program.

In addition to Reader capabilities, a user with Author1 capabilities can:

- Check out files
- Lock files
- Unlock files that he or she has locked or checked out
- Add and delete differences of a file to a working file

Since a user with Author1 capability cannot check in files, an Author1 user can make additions or deletions to a working file without affecting the HP SRC environment.

Author2 Class

Unlike the Author1 user, the Author2 user can also check in files. However, an Author2 user can only check in files that he or she has checked out or locked. He or she cannot check in or unlock files belonging to any other user.

In addition to Author1 capabilities, a user with Author2 capabilities can:

- Check in only files that he or she has checked out or locked
- Add symbolic names to any file or delete or replace symbolic names for any file that he or she owns
- Add log text to any revision of a file that he or she owns, or if not the owner of the file, to revisions of files for which he or she is the author
- Change description text of files that he or she owns
- Change log text prefix characters of files that he or she owns
- Delete revisions of a file that he or she owns
- List the mapping of Delta file names to working file names of any file
- Make copies of Delta files that he or she owns
- Change the ownership of files that he or she owns

Librarian Class

The primary difference between Admin (Administrator) capability and Librarian capability is that the Administrator can also add and delete users to the access list and perform system recovery. Both the Librarian and the Administrator are not restricted to files that they themselves created when performing file control activities, such as checking in, checking out, locking, and unlocking files. This enables the Librarian to unlock or check in locked files that have been locked by another user.

In addition to Author2 capabilities, a user with Librarian capabilities can:

- Check in any file
- Unlock any file
- Add or delete symbolic names of any file
- Add log text to any revision of any file

- Delete any revision of any file
- Copy any Delta files
- Change the owner of any file

Admin Class

A user with Admin capability controls access to the HP SRC environment for a particular MPE group. The first person to check in a file to HP SRC is automatically assigned as administrator of the HP SRC environment. The administrator can add or delete other users from the environment in that group, or recover the HP SRC environment in the event of a system crash. Other users with Admin capability can be subsequently added. These new Admin users can also add and delete users and perform recovery operations.

The Admin user can add or delete users from the user access list by using the Adduser and Deluser commands. The Admin user can also change the current capabilities of a user by using the Chguser command.

At least one user with Admin capability must exist in the HP SRC environment. A user with Admin capability cannot delete his or her own security capability or replace it with a lower capability. However, if more than one user has Admin capability, the other Admin user can delete or lower the capability of another Admin user and vice versa. This structure ensures that at least one user can manage the environment by adding and deleting other users and setting security classes.

MPE Security

Table 2-2 lists each security class and provides the access privileges for each type of group. This table enables a system administrator or account manager to determine the functions a user can perform within the current company or project team security standards. Refer to chapter 2 of the *HP SRC Implementation Guide* for examples of user and group capabilities.

Table 2-2. Security Access Privileges

Security Class	Group	Access
Reader	logon	write, save
	stat	read, lock
Author1	logon	write, save
	stat	read, write, save, lock
Author2	logon	write, save
	stat	read, write, save, lock
	ready	save, write
Librarian	logon	write, save
	stat	read, write, save, lock
	ready	save, write
	other users	read, purge
Admin	logon	write, save
	stat	read, write, save, lock
	ready	save, write
	other users	read, purge

Performing Basic HP SRC Tasks

The procedures presented in this section enable you to perform the following basic HP SRC tasks:

- Setting the UDC catalog for HP SRC
- Setting up HP SRC security
- Checking in a file
- Changing a revision and checking it in

Setting The UDC Catalog

HP SRC is installed in the PUB group of the SYS account. To run HP SRC from your logon group using a UDC, incorporate the following file in the list of files you normally include when you issue the SETCATALOG command:

```
HPSRCUDC.PUB.SYS
```

The command should be entered as follows:

```
setcatalog hpsrcudc.pub.sys
```

Setting Up HP SRC Security

To set up security classes and user access, you must first check in a file. You may check in a "dummy" file for this purpose and later check in legitimate files to the environment once security has been set up. Follow these steps to check in a dummy file, add users to the access list, and verify changes to the access list.

1. Issue the Chkin command as shown to create the Stat file, place the existing or non-existing file called *anyfile* in the HP SRC environment, and assign yourself (i.e., your logon *username.accountname*) as the administrator of the HP SRC environment:

   `Chkin file=`*anyfile*`;stat=`*statgroup*

   Note that you only need to specify the *stat* parameter if you want your Stat file in a group other than the PUB group, or other than the group that has been customized in the HP SRC UDC, or other than what a file equation for SRCSTAT specifies. HP SRC responds by displaying the following message:

   ```
   No HP SRC environment exists, would you like to create a new one? (Y/N)
   ```

2. Reply yes (y) to the prompt. HP SRC displays the following message indicating that the Stat file has been created:

   ```
   Status file created in GROUPNAME.ACCOUNTNAME
   (group.account) (SRCINFO 072)
   ```

   If the file you specified does not currently exist in the HP SRC environment, HP SRC displays an error message stating that the specified file does not exist. Disregard this message, however, because HP SRC creates the environment anyway.

3. Issue the following file equation to begin adding user names to the user access list of the environment you created (if different than the default PUB group or your customized UDC).

   ```
   FILE SRCSTAT=SRCSTAT.STATGROUP
   ```

   Note that if you have customized your UDC file, the group specified in the UDC overrides the file equation.

4. Issue the Adduser command as shown, substituting the appropriate logon and security class name:

   `Adduser` *username.accountname,classname*

5. Verify that the logon has been added to the access list by issuing the following command:

   ```
   Listusers
   ```

   HP SRC responds by displaying the users entered for the group access list. The added logon should be one of the listed users.

Checking In a File

After you have set up HP SRC security by checking in a dummy file and adding authorized users to the user access list, users with check-in capability can begin to check in files. The following steps enable you to:

- Create a new HP SRC file as revision 1.1
- Copy your file to the HP SRC file and then purge it
- Add an entry for the HP SRC file to the group's Stat file

1. Enter the Chkin command as shown below, substituting the name of your file for *filename*. If you have customized the HP SRC UDC, the UDC defaults to the appropriate *stat* file group. However, if you want HP SRC to keep the file in another group, enter that group name for the *stat* parameter.

   `Chkin` file=*filename*;stat=*statgroup*

   If this is the first time an HP SRC file has been created in your group, HP SRC displays the following message indicating that the Stat file has been created:

   ```
   Status file created in statgroup.account (SRCINFO 072)
   ```

2. Enter descriptive text for the new HP SRC file after the right angle bracket prompt shown below. You can enter up to twenty lines of text. End the text with a double slash (//) on a separate line and press Return.

   ```
   Checking in file(s):

   File      Revision
   -------   --------
   Filename  1.1

   Add description text - max. 20 lines of 80 chars. End with '//' after prompt.
   >
   ```

   HP SRC responds by displaying this message:

   ```
   END OF PROGRAM
   ```

Figure 2-1 illustrates the process involved when you check in a file named MYFILE3 to HP SRC for the first time. The figure shows that HP SRC updates the Stat file by adding S30000RC and creates the Delta file S30000RC. The text of MYFILE3 is saved in the HP SRC file as revision 1.1, and the original file MYFILE3 is purged.

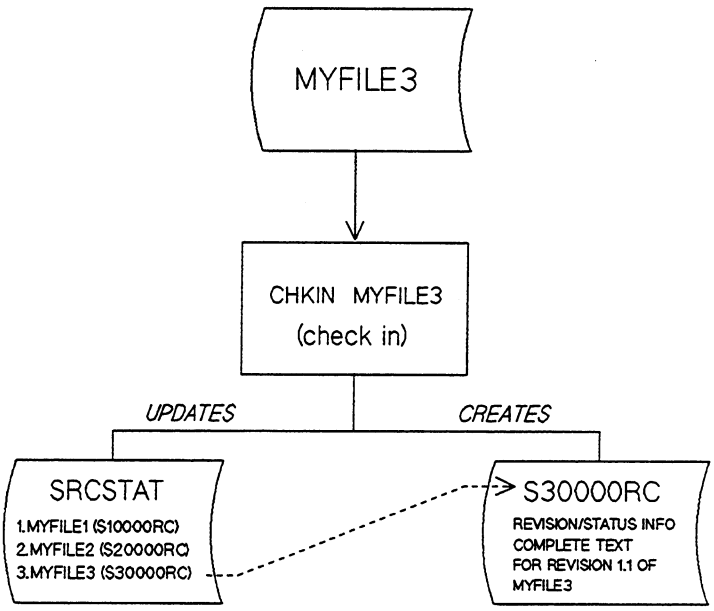

Figure 2-1. First Time Check-In of File MYFILE3

Modifying a Revision

To change a revision, you must create a new revision. You cannot overwrite an existing revision with changes. The following steps enable you to:

- Check out the head revision
- Modify the revision in the working file
- Check in the file as a new revision

1. Check out the revision by issuing the Chkout command, substituting your file name for *filename*. When you issue the Chkout command, HP SRC places the entire text of the latest revision into the working file, locks that revision, then displays the file name of the file that has been checked out.

   Chkout *filename*

   HP SRC responds by displaying:

```
Checking out file(s):

File          Revision
--------       --------
FILENAME      1.1
```

   If someone else has already checked out the revision with a lock, HP SRC displays a message similar to the following:

```
Revision 1.1 is already locked by JOE.SEL (SRCERR 025)
File could not be retrieved from the PUB.SEL environment (SRCERR 030)
```

2. Modify the working file using any standard editor or word processor.

3. Check the new revision into HP SRC by issuing the Chkin command:

   `Chkin` *filename*

   HP SRC responds by incrementing the previous revision level number by one and displays:

```
Checking in file(s):

File          Revision
--------        --------
FILENAME        1.2
```

   If you did not specify log text as part of the Chkin command, HP SRC prompts you for log text for the new revision. If this is the first time you have checked in the file and you did not specify description text as part of the Chkin command, HP SRC prompts for description text instead of log text.

4. Enter log text for the new revision. Log text is kept as a permanent part of this revision, so you should enter text that uniquely identifies it.

   Enter up to twenty lines of text. End the text with a double slash (//) at the beginning of a separate line, then press Return. When you press Return, HP SRC displays the following message:

   END OF PROGRAM

Figure 2-2 illustrates the process involved in creating a new revision for MYFILE3. The figure shows the following process:

1. A user checks out revision 1.1 using the Chkout command.
2. HP SRC examines the Stat file and determines that the related Delta file is S30000RC.
3. HP SRC retrieves the text from the S30000RC file and creates a new working file (still called MYFILE3).
4. The user modifies the working file using a standard editor.
5. The user checks in the working file using the Chkin command.
6. HP SRC writes the entire working file to S30000RC as the new revision 1.2. Only the differences between revision 1.1 and revision 1.2 are stored in the new Delta file. These differences provide the necessary data to recreate revision 1.1.

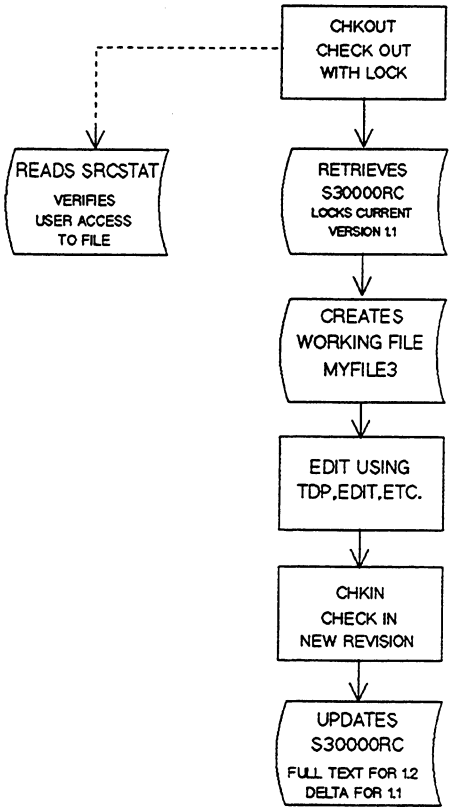

Figure 2-2. Creating a New Revision For MYFILE3

Performing Other Useful HP SRC Tasks

The information presented in this section enables you to perform the following additional HP SRC tasks:

- Obtaining status information about the HP SRC environment
- Retrieving the text of a revision
- Comparing the text of two revisions
- Deleting revisions

Obtaining Status Information

HP SRC provides five commands that can provide status information about the environment and the files that are managed within the environment. These commands and their primary functions are listed below. For detailed information about each command, see chapter 4.

Listdelta	Lists files, their corresponding Delta files, and their owners. This command is used primarily in recovery procedures, but provides a quick method of obtaining the names of file owners.
Listdiff	Lists the differences between two file revisions.

Listrev	Provides both a long form and a short form of reporting information about files and their revisions. You can specify selection criteria for items such as date range, locks, and author.
Listree	Graphically lists the revision tree for the specified file.
Listusers	Lists the users in the HP SRC access list.

Retrieving the Text of a Revision

Occasionally, you may require a file listing, but do not want to update the file. Assuming that HP SRC recognizes you as a valid user, you can retrieve the text of a revision for read-only purposes, even if someone else has checked out the revision with a lock.

To retrieve the text of a revision, enter the Copyrev command as shown, substituting the *revision* parameter (if you want to retrieve a revision other than the head revision) with the revision number that you want to retrieve:

```
Copyrev filename,revision
```

HP SRC responds by displaying the following if you specified revision 1.2:

```
Retrieving a copy of file(s):

File          Revision
--------        --------
FILENAME      1.2
```

Access across accounts is valid for "read-only" purposes. If the HP SRC file corresponding to the working file resides in another group and account, you must add the *stat* parameter and specify the group and account. HP SRC will then retrieve the revision and copy it to your logon group. If you want to copy the file to a group other than your logon group, specify the *to* parameter. You cannot, however, copy a revision to a group outside your account.

If other HP SRC users are logged on in your group, ensure that they are not working on the file that you want to retrieve. Otherwise, the working file that you want to retrieve can overwrite their working file. HP SRC displays the following prompt if the working file already exists:

```
filename.groupname.acctname already exists.  Overwrite? (Y/N)
```

Comparing the Text of Two Revisions

HP SRC provides a command that enables you to compare two revisions of a file directly from an HP SRC environment, eliminating the need of checking out the revisions individually and comparing them using a conventional compare program.

To compare two revisions in an HP SRC file, issue the Listdiff command as shown if you want to compare revisions 1.1 and 1.3:

```
Listdiff filename,1.1-1.3
```

HP SRC responds by displaying the differences on your terminal, unless directed to the system printer.

If you want to compare revisions that reside in another group or account, enter those group and account names in the *stat* parameter. Refer to the Listdiff command in chapter 4 for further information about this parameter.

Deleting Revisions

Deleting revisions may be desirable for a variety of reasons including the following:

- After you merged a branch into the trunk, the branch revisions are no longer needed.
- After you built a major release, the intermediate revisions on the trunk are no longer needed.
- You unintentionally checked in a revision, or a revision is invalid.
- You want to reduce the disc storage requirements for the HP SRC file and also decrease the time required to access earlier revisions.

To delete a branch of revisions from 2.1.1.1 through 2.1.1.4, issue the Delrev command as shown:

```
Delrev filename,2.1.1.1-2.1.1.4
```

HP SRC responds by displaying the following:

```
Deleting revision(s):

File          Revision
--------       --------
FILENAME      2.1.1.1-2.1.1.4
```

File Usage and Multiple Access

The following sections provide recommendations and precautions regarding file usage and multiple users accessing HP SRC files.

Advisory Information About HP SRC Files

HP SRC keeps Delta files and the Stat file in one group. It is advisable, however, to edit and use the working files in another group. Organizing HP SRC files in this manner prevents the occurrence of duplicate working files, while letting users work independently.

The following list describes actions you should avoid when using HP SRC files. Any deviation from these recommendations can produce unpredictable results.

- Do not purge a Delta file.
- Do not rename a Delta file.
- Do not modify Stat file or Delta file except with the appropriate HP SRC commands, such as Adduser and Deluser. Do not change the blocking factor or any other characteristic of this file.

- Do not FCOPY or modify the Stat file or a Delta file with another tool, such as a text editor. Doing so can destroy the integrity of both the file and the HP SRC environment.
- Do not purge the Stat file unless you are erasing all HP SRC files in that group.
- Do not move SRCSTAT or Delta files to another group and/or account unless the entire HP SRC environment is moved.
- Do not attempt to create your own Stat or Delta file. They are created automatically.

Advisory Information About Multiple Access

Multiple users can access different revisions of the same HP SRC file in the environment simultaneously. The following list outlines HP SRC restrictions regarding multiple access:

- After you lock a revision of a file, no other users in the environment can modify the file. This affects those using the Chkin, Chkincopy, Chkinplace, Chkout, Delrev, and Lock commands. The other revisions of the same file are available to other users.

  Users with Librarian or Admin capabilities, however, can override this security feature and issue the Chkin, Chkincopy, Chkinplace, and Unlock commands even though the revision is locked by another user.
- To execute the Recoverstat command, a user must have exclusive access to the Stat file. No other users may access the environment during this function.
- Two users using the same logon in a development environment cannot simultaneously lock two different revisions of the same file. A given logon is only allowed one locked revision per file.

  Note that assigning different users to the same user name is not recommended. With this arrangement, files, whether locked or not, can be easily overwritten.

3

BRANCHING AND MERGING

Periodically, two users may need to work concurrently on the same file. When this need arises, one of the users can initiate a branch revision that can subsequently be merged into the trunk revision.

This chapter provides procedures for the following tasks related to branching and merging:

- Creating a branch
- Adding a new revision to a branch
- Merging a branch into the trunk
- Resolving file conflicts

Creating a Branch

Perform the following steps to create a branch:

1. Check out the trunk revision where the branch is to occur. This revision is referred to as the *fork* revision. For instance, to create a branch at revision 1.3 in which revision 1.4 is the head revision, issue the Chkout command:

   `Chkout` *Filename*`,1.3`

2. Modify the working file, if necessary, with any text editor.

3. Check in the branch revision to HP SRC by issuing the Chkin command:

   `Chkin` *Filename*

   HP SRC responds by displaying:

```
Checking in file(s):

File      Revision
-------    --------
Filename   1.3.1.1

Add log text - max. 20 lines of 80 chars. End with '//' after prompt.
>
```

   Note that the branch revision number now includes two more digits than the trunk revision number.

4. Enter log text as desired. After entering the text, HP SRC saves the new branch revision as a Delta file of the fork revision.

5. If desired, issue the Listtree command to display the tree structure. HP SRC responds by displaying this structure:

```
1.4
 |
1.3
 |---1.3.1.1
1.2
 |
1.1
```

Note

In parallel development environments, the developer making the fewest changes should create the branch. This simplifies the subsequent merge. Also, HP SRC requires more time to retrieve a branch revision than a revision near the head of the trunk.

Adding a New Revision to a Branch

You can create a new revision on a branch whenever you need to make changes to a branch revision.

Perform the following procedure to create a new branch revision. The procedure is based on branch revision 1.3.1.1, which was created from fork revision 1.3.

1. Check out the branch revision to be modified by issuing the Chkout command:

   `Chkout` *Filename*`,1.3.1.1`

2. Modify the working file, using any standard text editor.
3. Check in the new branch revision to HP SRC by entering the Chkin command:

   `Chkin` *Filename*

   HP SRC increments the branch level number of the previous revision by one, displays the new branch revision number, and prompts you to enter log text for the new revision as shown below:

```
Checking in file(s):

File      Revision
-------    --------
Filename   1.3.1.2

Add log text - max. 20 lines of 80 chars. End with '//' after prompt.
>
```

4. Enter log text as desired. HP SRC saves the new branch revision, 1.3.1.2, as a Delta file of the branch revision 1.3.1.1.
5. If desired, issue the Listtree command to display the tree structure. HP SRC responds by displaying this structure:

```
1.4
 |
1.3
 |---1.3.1.1
1.2 |
 |  1.3.1.2
1.1
```

Merging a Branch Into the Trunk

When you finish working on a branch revision and are ready to incorporate it into the trunk revision, you merge the differences between the branch and the trunk revision.

Perform the following procedure to merge the changes of branch revisions 1.3.1.1 and 1.3.1.2 into the head revision of 1.4.

1. Issue the Chkout command to check out the trunk revision receiving the branch changes:

   `Chkout` *Filename*

   Note that it was not necessary to specify revision number, 1.4, because the default revision is the head revision.

2. Issue the Adddiff command as follows:

   `Adddiff` *Filename,* `1.3.1.1-1.3.1.2`

   This action automatically merges in all the differences for *Filename* that were added for revision 1.3.1.1 through 1.3.1.2.

3. Resolve any file "conflicts". Refer to the next section entitled "Resolving File Conflicts" for information on this subject. You should probably check the merged file output even if no conflicts exist, because merging may have introduced logic errors.
4. Delete all of the unwanted differences, including all conflict headings and question marks that delimit the differences in the working file.
5. Issue the Chkin command to check in the file to the HP SRC environment:

`Chkin` *Filename*

6. If desired, issue the Listtree command to display the new tree structure. HP SRC responds by displaying the following structure that shows revision 1.5, including all the changes made between revision 1.3 and revision 1.3.1.2.

```
1.5
 |
1.4
 |
1.3
 |---1.3.1.1
1.2 |
 |  1.3.1.2
1.1
```

Resolving File Conflicts

When you issue the Adddiff command to merge branch revisions, HP SRC compares the working file to each branch revision. When HP SRC encounters records in which there are overlapping changes in the working file and any of the Delta files, tabular data informs you of the conflicting data. These overlapping changes are called *conflicts.* HP SRC does not consider overlapping deletions (without subsequent additions) as conflicts.

The conflicts are listed in the working file, as shown in the example below. A conflict heading delimits the beginning, middle, and end of conflicts. In some cases, some unchanged lines may also be enclosed within the conflict. The example shows that the records from text "aaa" to "fff" in the working file conflict with the records from text "aa" to "ff" in branch revision 1.1.1.1. The working file, branch revision, and trunk revision are no longer in conflict beginning with the "g" text record.

```
????? Beginning of Conflict 1 ??????????????????????????????????????????
aaa
b
c
d
eee
fff
????? Middle of Conflict 1 ??????????????????????????????????????????????
aa
b
c
dd
ee
ff
????? End of Conflict 1 ????????????????????????????????????????????????
g
h
i
j
```

Table 3-1 shows text conflicts and corresponding records for a trunk revision, branch revision, and working file.

Table 3-1. Comparison Of File Conflicts

	Revision 1.1	Revision 1.1.1.1	Working File
Rec 1	a	aa	aaa
Rec 2	b	b	b
Rec 3	c	c	c
Rec 4	d	dd	d
Rec 5	e	ee	eee
Rec 6	f	ff	fff
Rec 7	g	g	g
Rec 8	h	h	h
Rec 9	i	i	i
Rec 10	j	j	j

4

HP SRC COMMANDS

This chapter first presents introductory material regarding HP SRC command syntax, keyword usage, and command termination. The command descriptions appear in alphabetical order following the introductory material.

Command Syntax

The following sections discuss how to specify:

- Commands
- Positional and non-positional parameters
- Multiple file names
- Strings
- Revision numbers or symbolic names
- The Stat parameter

Entering Commands

To issue a command, you must enter the command name and the working file name, followed by any required or optional parameters as shown in the following example:

command *workingfile* [*parameters*]

Commands that are exceptions to this general syntax are:

- Adduser
- Deluser
- Listusers
- Recoverstat
- Srchelp

Refer to the description for each of these commands for their syntax.

Specifying Parameters

The two types of command parameters are *positional* and *non-positional.* The following sub-sections explain the differences and the method of combining them for MPE/XL operating systems.

Positional Parameters

Positional parameters must always appear in the same order as they are listed in the syntax diagram for the command. If you do not specify a particular parameter, you must replace the omitted parameter with a comma if you want to specify another parameter following the omitted parameter.

To enter parameters positionally, specify the parameter values and separate them with commas as shown in the following example for the Adddiff command:

```
Adddiff filea,2.1,,,LP,stat1
```

Non-Positional Parameters

To enter non-positional parameters, you use the standard "keyword" format, which consists of entering the parameter name itself, an equal sign, then the parameter value. You can separate the keyword parameters with either commas or semicolons. The following example shows non-positional notation for the Chglog command:

```
Chglog file=filea;rev=1.3;list=LP
```

Combining Positional and Non-Positional Parameters

For the MPE/XL operating system, you can use both positional and non-positional parameters in the same command as shown in the following example of the Chglog command:

```
Chglog filea,1.3,list=LP;stat=statfile
```

Note that when you enter a keyword parameter, all subsequent parameters must also be in keyword format.

Specifying Multiple File Names

Most HP SRC commands allow you to specify up to ten file names within syntax. You can either enter the file names and separate them with colons (i.e., *file1:file2:file3*) or use wildcards in the name. You cannot qualify file names with either a group or account name.

Table 4-1 lists and defines permissible wildcard characters. Only one file name should be supplied if you use wildcards. You can combine wildcards in the same name, if necessary.

Table 4-1. Wildcard Characters

WILDCARD CHARACTER	SELECTION CRITERIA
@	Matches any string of characters starting with the @ position. For example, MOD@ selects all files starting with the letters, "MOD".
?	Matches any character in the ? position. For example, MOD? selects all files with "MOD" in the first three positions and any character in the fourth position.
#	Matches any digit in the # position. For example, MOD# selects all files with "MOD" in the first three positions and any digit in the fourth position.

Specifying Strings

You can enter strings only in the log message portion of the Chkin, Chkincopy, and Chkinplace commands, and in the prefix portion of the Addprefix command. You must enclose strings containing embedded semicolons, blanks, or commas with double quotation marks (" ") as in:

```
Chkin file,,,,,"abc;def ghi,"
```

Strings with embedded single or double quotes are invalid.

Specifying Revision Numbers or Symbolic Names

Symbolic names enable you to mark milestone revisions. The Addsym, Chkin, Chkinplace, and Chkincopy commands enable you to assign a symbolic name to a revision for the Rev parameter, rather than specify the revision number.

Symbolic names assist you in recreating a development module at a later time. For example, the symbolic name, RELEASE1, could be assigned to a head revision in a module. A symbolic name cannot reference more than one revision of a file, but a revision can have any number of symbolic names that reference it.

The following guidelines apply to revision numbers and symbolic names:

- Revision numbers can consist of numbers and periods of up to 48 characters.
- Each revision number can have a maximum of 7 digits (i.e., 9999999.9999999).
- Symbolic names consist of up to 16 characters.
- Symbolic names must begin with a letter followed by any printable ASCII character except commas, semicolons, colons, dashes, and single or double quotation marks (, ; : - ' ").
- The wildcard characters @, #, and ? are not recommended for use within symbolic names.

Specifying the Stat Parameter

Each command, except for Srchelp, provides an optional Stat parameter that enables you to specify the name of the group and account where the Delta files and the Stat file reside. If you do not specify this parameter, the default is for HP SRC to set this parameter to the PUB group of the logon account. The parameter should reflect the name of your project group, however.

There are several methods of overriding the default PUB group. You could create a file equation for the Stat file, SRCSTAT, for instance. To run HP SRC using the environment in the SOURCE group, you would issue the following file equation:

```
FILE SRCSTAT=SRCSTAT.SOURCE
```

If you want to override both the PUB group and file equation method, you can customize your UDCs to change the default of the Stat parameter from " " to a group name. This method always overrides any file equation specified for the Stat file.

If you want to override the PUB group and either of the previously described methods, you can specify a group name for the Stat parameter in any of the HP SRC commands.

Using Keywords

Keywords are character strings that represent specific types of file information that you want HP SRC to insert within the file when you check it out or copy it as a revision. You can insert up to eight types of keywords in a file. Keywords become a permanent part of the current revision, thereby serving as identifying information for the revision.

When you issue either the Chkout or Copyrev command, HP SRC inserts the information by expanding the keyword to include the desired information. When you check in the revision, the expanded keywords remain in the file and the Delta file includes the expanded keywords.

For instance, if you include the keyword, **$Author$**, in the working file and check it in as user JOHN.DOE, HP SRC expands the keyword to **$Author: JOHN.DOE$** when you check out the file. This expanded keyword remains in the file when you check it back in as a revision.

Guidelines for Using Keywords

You can insert keywords anywhere in your working file, but it is advisable to insert them at the beginning of the file. Only one keyword per line is allowed.

You can use both uppercase and lowercase letters, because keywords are not case-sensitive. Therefore, either $Author$ or $author$ are considered valid keyword entries.

Although keywords can be entered anywhere in the text, it is advisable to enter keywords left-justified in the file. When the keyword is expanded, the expansion occurs at the point in the record where the keyword is placed. Some keywords can produce long expansion records. If the expansion is greater than the number of bytes to the right of the keyword, then the expansion truncates and HP SRC displays a warning.

Note

If a file is written in SPL and the $ is inserted in the first column, SPL interprets it as a compiler directive. You should begin the keyword in column 2 or place it in a comment line.

Table 4-2 lists all of the keywords with explanations and examples of corresponding keyword expansion.

Table 4-2. Keywords

KEYWORD	KEYWORD EXPANSION
$Author$	Expands to include the logon user who created the revision, as in the following example: $Author: MGR.DOC $
$Date$	Expands to include the date and time the revision was checked in, as in the following example: $Date: WED, JUN 15, 1988, 11:12 AM $
$File$	Expands to include the file name without qualifications (no group name or account name), as in the following example: $File: CMR1020 $
$Header$	Expands to include the file name, revision number, date, time and logon of the user who created the revision, as in the following example: $Header: MYFILE 1.1 WED, JUN 15, 1988, 11:12 AM MGR.DOC $
$Locker$	Expands to include the logon user who locked the revision, as in the following example: $Locker: MGR.DOC $
Log	Expands to include all of the log text entered for this revision. Each log message is preceded by the header message. New log messages do not replace old messages, but are appended to them, thereby providing a cumulative log of the changes that comprise the current revision. To obtain a complete log history in the file, include the Log keyword in revision 1.1. To eliminate some of the log messages, delete the unwanted lines from the working file. The following example shows Log keyword expansion in a working file. The working file name, MYFILE, prints first, followed by the log text for each revision. Revisions are listed starting with the most current. $Log: MYFILE $ Revision 3.2 WED, JUN 15, 1988, 11:12 AM JOHN DOE This revision contains changes to the DRAW command syntax. Revision 3.1 MON, JUN 13, 1988, 5:45 PM JOHN DOE This is the first edition of the graphics tutorial guide.
$Revision$	Expands to include the revision number in your file, as in the following example: $Revision: 1.1 $
$Symbol$	Expands to include all symbolic names associated with the check-out revision. If all names cannot fit on one line, they are listed on a separate line or lines terminated by a semicolon and a dollar sign (;$).

Assigning Keywords to Variables

You can use the $Revision$ keyword to assign variables in source code. During check-out, HP SRC expands the keyword and the variable assumes the value of the expanded keyword, which is eventually incorporated into the object module after compiling.

You can programatically display revisions by assigning a variable to the $Revision$ keyword. It is advisable to use keywords with short, predictable maximum expansion lengths. Compilation errors occur if the expanded keyword exceeds the size of the variable definition.

The following example shows the $Revision$ keyword inserted in COBOL source code:

```
17.1  ENVIRONMENT DIVISION.
17.2  DATA DIVISION.
17.3  WORKING-STORAGE SECTION.
17.4  77 PROGRAM-VERSION      PIC X(30) VALUE
17.5                    "$REVISION$".
17.6  PROCEDURE DIVISION.
17.7  ENTER-ROUTINE.
17.8     DISPLAY "CURRENT VERSION IS " PROGRAM-VERSION.
17.9     STOP RUN.
```

Suppressing Keyword Expansion

You can suppress keyword expansion by using the Nokeywords option of the Chkout or Copyrev commands. If you suppress keyword expansion when checking out a file, the file reflects the value of the keywords from the last check-in.

For example, if you check out a file and expand the keywords, check it back in, then check it out again with the keywords suppressed, the file contains the expanded keywords from the first check-out.

Note that the Chkinplace command never expands keywords, whereas the Chkincopy command always expands keywords.

Terminating HP SRC Commands

During command execution, you can press the Ctrl Y keys to terminate the current HP SRC function and exit from HP SRC. Most functions terminate immediately without performing file cleanups or other housekeeping processes.

HP SRC suppresses the Ctrl Y function under the following circumstances to prevent corruption of the HP SRC environment:

- During updating of the Stat file
- When a new Delta file is created during a file check-in and is being renamed to its proper permanent Delta file name

Adddiff

Purpose

Adds the differences created by a revision or for a revision range to a working file.

Syntax

`adddiff` *file,rev* [,[*from*] [,[*sync*] [,[*list*] [,[*stat*]]]]]

Capability Classes

Author1
Author2
Librarian
Admin

Description

This command is used primarily for merging a branch into the trunk and requires a working file in which to make the changes. Therefore, this command is usually preceded by either the Chkout command or the Copyrev command. Adddiff adds the changes created by revision1, or for revision1 through revision2, to a working file. Refer to chapter 3 for more information on this command.

Parameters

file — Name of the file or set of files to be acted upon. Optionally, up to ten file names can be specified by separating the file names with colons (i.e., file1:file2: ... file10).

You can use the characters, @, #, and ? as wild card characters for this parameter. These wild card characters have the same effect as those in the MPE command, LISTF. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Adddiff myfile:src@* would be invalid.

rev — The range of revisions of a file or symbolic names from which the changes are to be applied to the working file. Two forms of this range are valid: revision1 or revision1-revision2. The changes are added to the working file for the revision specified, or for all of the revisions specified in the range.

from — The group name (or group.account) where the named file resides. The default is the the logon group.

sync — Specifies the number of records that must match between the files before a record of text is declared unchanged. The purpose is to determine when the differences stop and the files return to synchronization. Expected input is an integer. The default is 4.

As a guideline, if the same set of lines repeat several times, you may want to increase the *sync* count to reduce the number of differences.

list If LP is specified, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. If LP is not specified, the default is $STDLIST. If the LP option is specified and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for the user (File SRCLIST=LP).

stat The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but can be modified to reflect the name of your project group.

Example

In the following example, file SRC4 has three revisions on the trunk, 1.1, 1.2, and 1.3. SRC4 also has one branch that contains two revisions, 1.1.1.1 and 1.1.1.2. The changes made in the branch are merged into the working file (trunk revision, 1.3).

```
:chkout src4


:adddiff src4, 1.1.1.1-1.1.1.2

Adding differences:

File         Rev Range          Working File        Conflict(s)
----         ---------          ------------        -----------

SRC4         1.1.1.1-1.1.1.2    SRC4.USER.TOOLS     1

:print src4

Begin
????????? Beginning of  Conflict 1 ????????????????????????????????
  If a=c then
????????? Middle of Conflict 1 ?????????????????????????????????????
  If a=d then
????????? End of Conflict 1 ????????????????????????????????????????
    begin
     a:= 1;
     c:=d;
     b:= c;
    end;
end.
```

Addsym

Purpose

Adds a symbolic name to a file(s) and revision.

Syntax

```
addsym file, [rev] ,sym [,[replace] [,[list] [,stat]]]
```

Capability Classes

Author2	Can only replace symbols from revisions that he or she owns.
Librarian	
Admin	

Description

Addsym assigns a symbol to the specified revision of a file or file set. The command enables you to to assign the same symbolic name to many files (ASCII and binary) that comprise a single release. Therefore, you can check out all files with a particular symbolic name, which automatically checks out the correct revisions of these files.

Parameters

file — The name of the file or set of files to which you want to add a symbolic name. Up to ten file names can be specified by separating the file names by colons (i.e., file1:file2: ... file10).

You can use the characters, @, #, and ? as wild card characters for this parameter. These wild card characters have the same effect as those in the MPE command, LISTF. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Addsym myfile:src@* would be invalid.

rev — The revision to which you want to assign the symbol. The default is the head revision.

sym — The symbolic name. This may be a character or a string. Symbolic names can be up to 16 characters long. Because symbolic names are case-sensitive, you can specify two symbolic names spelled identically but with different capitalization (i.e., TEST1 and test1).

replace — This parameter specifies the action to be taken if a symbol already exists for another revision. The following options are available:

```
Replace
[ blanks ]
```

This parameter causes HP SRC to overlay the existing symbolic name without issuing a warning prompt. If you leave the parameter blank, HP SRC prompts you to verify whether symbolic name replacement is to occur. The default for session mode is blanks. The default for batch mode is Replace.

list If you specify the LP option, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE *FILE* command to equate SRCLIST to the device class you select. If you do not specify LP, the default is $STDLIST.

stat The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but can be modified to reflect the name of your project group.

Example

The following example adds the symbolic name to the head revision of all files that begin with *src* and shows the resultant output.

```
:addsym src@,,A.01.03

'A.01.03' is the symbolic name added to the following revisions:

File            Revision
--------        --------
SRC1            1.5
SRC2            1.2
SRC3            2.2
SRC4            1.3
SRC5            1.25
SRC6            2.12
```

Adduser

Purpose

Adds users and sets security classes in the HP SRC environment.

Syntax

`adduser` *user* [,[*class*] [,[*list*] [,[*stat*]]]]

Capability Classes

Admin

Description

Adduser adds users to the HP SRC environment, and provides each user with a specific user security class. Each security class defines a particular set of functions that the user can perform inside the HP SRC environment. The five security classes in descending order of capability are:

Admin
Librarian
Author2
Author1
Reader

Each successive class retains the capabilities of the previous class, plus additional capabilities. For example, Author2 has the capabilities of Reader and Author1, plus additional capabilities. The default security class is Reader. Refer to chapter 2 for a list of security class capabilities.

If the user name already exists, a prompt appears asking whether the user name is to be updated with the new security class.

Parameters

user — The name of the user to be added. This name should conform to the standard MPE logon format (i.e., Username.Accountname). You can optionally specify up to ten user names by separating them with colons (i.e., User1.Tools:User2.Tools).

class — The security class of the user. The following classes are available:

```
Reader
Author1
Author2
Librarian
Admin
```

The default security class is Reader. Refer to chapter 2 for a detailed description of these security classes.

list If you specify the LP option, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to allow you to redirect the output. You must use the MPE *FILE* command to equate SRCLIST to the device class you select. If you specify LP and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for you (File SRCLIST=LP). If you do not specify the LP option, the default is $STDLIST.

stat The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project group.

Example

The first two of the following examples shows the use of the command to add valid security classes, Author1 and Admin. The third example shows the error message that occurs when you specify an invalid security class.

```
:adduser alan.tools, author1

Adding user(s):

User              Security
--------------    --------
ALAN.TOOLS        Author1



:adduser mary.tools, admin

Adding security for user(s):

User              Security
--------------    --------
MARY.TOOLS        Admin

  User already exists.  Update? (Y/N)



:adduser john, xyzzy

  'XYZZY' is an invalid security class (SRCERR 171)
```

Chgdesc

Purpose

Changes the description text for a file.

Syntax

```
chgdesc file [,[desc] [,[list] [,[stat]]]]
```

Capability Classes

Author2	Can change description text only to files that the user owns.
Librarian	
Admin	

Description

Chgdesc overwrites the description text for the specified file. If you do not enter the file name for the desc parameter, HP SRC interactively prompts you for the text. Any existing description text becomes lost.

Description text differs from log text. Each file has description text that records items, such as the purpose of the file and how it is used. Each file revision has accompanying log text that contains information, such as the reason for a particular revision and the defect number associated with that revision.

If you want to specify description text in batch processing, you should use a *desc* file and not include the text in the job stream for any check-in operation (Chkin, Chkincopy or Chkinplace) or the Chgdesc command.

Parameters

file

The name of the file or set of files for which you want to change the description. You can optionally specify up to ten file names by separating the file names with colons (file1:file2: ... file10).

You can use the characters, @, #, and ? as wild card characters for this parameter. These wild card characters have the same effect as those in the MPE command, LISTF. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Chgdesc myfile:src@* would be invalid.

desc

The name of the file containing the text you want to use as the description text. The file is not purged after this command is executed. Specifying $NULL for this parameter effectively removes any description text. If you leave this parameter blank, HP SRC interactively prompts you for the new description text. For batch processing, you should not specify description text in the job stream.

list If you specify the LP option, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to allow you to redirect the output. You must use the MPE *FILE* command to equate SRCLIST to the device class you select. If you specify LP and a file equation does not exist for SRCLIST, HP SRC sets up the file equation *File SRCLIST=LP*. If you do not specify the LP option, the default is $STDLIST.

stat The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project group.

Examples

```
:chgdesc src4,newtext

Adding description text from NEWTEXT to:

File
--------
SRC4

END OF PROGRAM



:chgdesc myfile

Adding description text to:

File
--------
MYFILE

  Add desc. text - max. 20 lines of 80 chars.  End with "//' after prompt.
>   This is the new description text for SRC4.
>   //

END OF PROGRAM
```

Chglog

Replaces the log text for a particular revision of a file.

Syntax

chglog *file* [,[*rev*] [,[*log*] [,[*list*] [,[*stat*]]]]]

Capability Classes

Author2 — Can change log text only to files that the user owns, or if not the owner, only for revisions for which the user is the author.

Librarian

Admin

Description

Chglog overwrites the log text for a file and specific revision. If you do not enter the file name for the log parameter, the system interactively prompts you for text. This command is typically executed after the Copylog command, which places the current log text in a file that you could then modify and reference in this command.

Log text differs from description text. Each file revision has accompanying log text that contains information, such as the reason for a particular revision and the defect number associated with that revision. Each file also has description text that records items, such as the purpose of the file and how it is used.

If you want to specify log text in batch processing, you should not include the text in the job stream for any check-in operation (Chkin, Chkincopy or Chkinplace) or the Chglog command. You can, however, specify it in a string as part of the check-in commands or as a log file in the Chglog command.

Parameters

file — The name of the file or set of files for which you want to change the description. You can optionally specify up to ten file names by separating the file names with colons (file1:file2: ... file10).

You can use the characters, @, #, and ? as wild card characters for this parameter. These wild card characters have the same effect as those in the MPE command, LISTF. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Chglog myfile:src@* would be invalid.

rev — The revision or symbolic name of the file in which you want the log text replaced. The default is the head revision.

log — The name of the file that contains the text you want to use as the log text. The file is not purged after you execute this command. If you leave this parameter blank, HP SRC interactively prompts for the new log text.

Specifying $NULL effectively removes any log text. For batch processing, you should not specify log text in the job stream.

list If you specify the LP option, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to allow you to redirect the output. You must use the MPE *FILE* command to equate SRCLIST to the device class you select. If you specify LP and a file equation does not exist for SRCLIST, HP SRC sets up the file equation *File SRCLIST=LP.* If you do not specify the LP option, the default is $STDLIST.

stat The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project group.

Examples

```
:chglog src4,,newtext

Adding log text from newtext.steve.tools to:

File            Revision
--------        --------
SRC4            1.4



:chglog myfile

Adding log text to:

File            Revision
--------        --------
MYFILE          1.3

Add log text - max. 20 lines of 80 chars.  End with '//' after prompt.
>This is the new log text for SRC4.
>//
```

Chgowner

Purpose

Chgowner changes the owner of a file in the HP SRC environment.

Syntax

```
chgowner file [,[user] [,[list] [,[stat]]]]
```

Capability Classes

Author2	Can change owner only for files the user owns.
Librarian	
Admin	

Description

This command is useful for reassigning ownership of a file. Certain command capabilities depend on file ownership. For instance, if a user with Author2 capability owns the file, many special capabilities are available.

Some of the HP SRC commands that the Chgowner command affects are Addsym, Chgdesc, Chglog, Chgowner, Chgprefix, Copydelta, Delrev, Delsym, and Listdelta.

The owner of a file differs from the author of a revision. The owner of the file is the first person to check in a particular file to the HP SRC environment, whereas the term author applies only to file revisions.

For example, if a file called SRC1 is checked in to the environment for the first time by user1, user1 is the owner of the file. If user2 (Author2 capability) then checks out the file, makes some modifications, and then checks the file in to the environment as revision 1.2, user2 becomes the author of revision 1.2. Although user2 may have been assigned the user class Author2, when added to the environment, user2 cannot execute any of the commands on file SRC1 requiring ownership of the file with Author2 capability.

Parameters

file

The name of the file or set of files for which you want to change the description. You can optionally specify up to ten file names by separating the file names with colons (file1:file2: ... file10).

You can use the characters, @, #, and ? as wild card characters for this parameter. These wild card characters have the same effect as those in the MPE command, LISTF. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Chgowner myfile:src@* would be invalid.

user

The user name of the user to become the new owner of the file. This name is in the standard MPE format (Username.Accountname). The user need not exist in the environment before you issue this command. However,

you must add the user with the Adduser command if the user does not currently exist in the environment. Otherwise, the user will be unable to access the file.

If this parameter is left blank, HP SRC by default assigns ownership to the current user executing the command.

list — If you specify the LP option, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to allow you to redirect the output. You must use the MPE *FILE* command to equate SRCLIST to the device class you select. If you specify LP and a file equation does not exist for SRCLIST, HP SRC sets up the file equation *File SRCLIST=LP*. If you do not specify the LP option, the default is $STDLIST.

stat — The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project group.

Examples

The following example changes the owner of file *Myfile* to *Alan.Tools*.

```
:chgowner myfile, alan.tools

Changing owner to ALAN.TOOLS in:

FILE
------

MYFILE
```

The following example changes the owner of all files ending with *docu* to the user executing the command.

```
:chgowner @docu

Changing Owner to LOGON.USER in:

FILE
-------

ONEDOCU
TWODOCU
LASTDOCU
```

Chgprefix

Purpose

Adds the specified prefix to each line expanded in the working file for the keyword, Log.

Syntax

```
chgprefix file [,[prefix] [,[list] [,stat]]]]
```

Capability Classes

Author2	Can specify a new prefix only for files the user owns.
Librarian	
Admin	

Description

Chgprefix specifies a new character or string to precede any line expanded by the keyword, Log. It there is an existing prefix, Chgprefix overwrites it with the new prefix.

One of the uses of this prefix is to set up the log text as a comment for various compilers. Fixed-format languages, such as COBOL and FORTRAN, can use this prefix easily, since a single character in a specific column delimits the line as a comment. For free-format languages, such as Pascal and C, the prefix does not provide for an ending comment delimiter. For these languages, the Log keyword must have the start-of-comment delimiter on the preceding line and the end-of-comment delimiter on the line following the Log keyword. You can display the log text prefix string by executing the long form of the Listrev command and examining the header information.

For COBOL files, which have line numbers in the first six columns, any specified prefix text starts in column seven.

Parameters

file — The name of the file or set of files for which you want to change the description. You can optionally specify up to ten file names by separating the file names with colons (file1:file2: ... file10).

You can use the characters, @, #, and ? as wild card characters for this parameter. These wild card characters have the same effect as those in the MPE command, LISTF. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Chgprefix myfile:src@* would be invalid.

prefix — The prefix to be added to each line, which may be a character or a string. If the string includes embedded semicolons, blanks, or commas, then it must be enclosed in double quotation marks (" "). Otherwise, the string can be entered without quotation marks. Embedded single or double quotation marks are never valid for strings. A maximum of 112 characters

may be used in the prefix string. If this parameter is left blank, the existing prefix is deleted and the prefix character is set to null or ' '.

list If you specify the LP option, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to allow you to redirect the output. You must use the MPE *FILE* command to equate SRCLIST to the device class you select. If you specify LP and a file equation does not exist for SRCLIST, HP SRC sets up the file equation *File SRCLIST=LP*. If you do not specify the LP option, the default is $STDLIST.

stat The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project group.

Examples

The following example adds the prefix * for use in a COBOL file. The output is shown following the command.

```
:chgprefix cobsrc4,*

* is the new log text prefix being changed in:

File
--------
COBSRC4
```

The following example inserts a + in the first column. The output is shown following the command.

```
:chgprefix myfile@,+

"+" is the new log text prefix being changed in:

File
--------
MYFILEA
MYFILEB
```

The following sample source files show how to specify log text for various computer languages:

```
COBOL (1)          Pascal (2)          C (2)          FORTRAN (3)

*$Log$             {                   \*             *$Log$
                   $Log$               $Log$
                   }                   *\
```

```
(1) Prefix = "*"
(2) No prefix
(3) Prefix = "     *"
```

Chguser

Purpose

Changes the security class of an existing user.

Syntax

```
chguser user [,[class] [,[list] [,[stat]]]]
```

Capability Classes

Admin

Description

Chguser enables you to either add users to the HP SRC environment or change the capability class of an existing user. If you issue the command and the specified user does not currently exist, HP SRC prompts you as to whether you want to add the user.

Parameters

user

The name of the user whose class you want to change. This name is in the standard MPE format (Username.Accountname). You can optionally specify up to ten user names by separating them with colons (i.e., User1.Tools:User2.Tools).

class

The user class capability you want to assign to the user. The available classes in descending order of capability are:

```
Admin
Librarian
Author2
Author1
Reader
```

The default class is Reader.

list

If you specify the LP option, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to allow you to redirect the output. You must use the MPE *FILE* command to equate SRCLIST to the device class you select. If you specify LP and a file equation does not exist for SRCLIST, HP SRC sets up the file equation *File SRCLIST=LP*. If you do not specify the LP option, the default is $STDLIST.

stat

The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project group.

Example

The following example changes the capability of User.Prog to the Admin class:

```
:chguser user.prog,admin

Updating security for user(s):

User              Security
--------------    --------
USER.PROG         ADMIN
```

Chkin

Purpose

Checks in a file to HP SRC.

Syntax

```
chkin file [,[rev] [,[from] [,[sym] [,[replace] [,[log]
                [,[chg] [,[desc] [,[mask] [,[list]
                [,stat]]]]]]]]]]
```

Capability Classes

Author2	Users with this capability can check in files that only they have checked out or locked. They can add symbolic names through use of the *sym* option, but can only specify the *replace* option for those files that they own.
Librarian	Users with this capability can check in files, regardless of which user has checked out or locked the file.
Admin	

Description

Checks in a working file you have previously checked out, checks in a working file for which you have obtained a lock, or checks in a new working file to the environment. During check-in, HP SRC releases the lock you held and purges the working file.

The default revision number for an initial check-in of a file is 1.1. You can, however, specify a particular revision number for a file you want to check in, such as revision 2.0, or you can specify a branch revision, such as 1.3.1.1.

If you want to provide description text or log text in batch processing, you should not include the description text or log text in the job stream. Use the *desc* or *log* options instead. This applies to any check-in operation (Chkin, Chkincopy, or Chkinplace) and the Chglog command.

You can, however, specify log text in a string within the check-in commands. If the file is an ASCII file, but its characteristics (record length, user labels, or non-standard file type) make archiving necessary, the default in batch mode is to continue archiving. Conversely, in interactive mode, HP SRC prompts you to verify whether or not you want to continue with archiving.

Parameters

file — The name of the file or set of files for which you want to change the description. You can optionally specify up to ten file names by separating the file names with colons (file1:file2: ... file10).

You can use the characters, @, #, and ? as wild card characters for this parameter. These wild card characters have the same effect as those in the MPE command, LISTF. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Chkin myfile:src@* would be invalid.

rev — The revision that you want to check in. When checking in, the default is to increment the revision number that was checked out. However, you can check a file back in using a larger revision number. For instance, the default for checking in revision number 1.1 is for it to be checked in as 1.2. You can, however, specify that the revision is to be checked back in as revision 1.3 if desired. You cannot, however, specify a lower revision number.

from — The group name (or group.account) where the named file resides. The default is the logon group.

Caution

If you use wildcards in group and/or account names, HP SRC may find two or more files with the same file name. HP SRC only checks in the first one found and does not check in subsequent files. If this occurs, the following message appears:

```
User must hold a lock in order to check in a file (SRCERR 031)
```

This message indicates that a file with that name has already been checked in.

---

sym — The symbolic name. This may be a character or a string.

replace — This parameter specifies whether an existing symbolic name will be overwritten. The following options are available:

```
Replace
[ blanks ]
```

With the Replace keyword, HP SRC overlays the existing symbolic name without issuing a warning prompt. If the parameter is left blank, you are prompted to verify whether symbolic name replacement is to occur. The default for session mode is blanks. The default for batch mode is Replace.

log — The log text for this particular revision of the file. If you specify the log text in a string as part of this command, then HP SRC does not prompt for this parameter. If the string includes embedded semicolons, blanks or commas, then it must be enclosed in double quotation marks (" ") and must have 80 characters or less. Otherwise, you can enter the string without quotation marks. Embedded single or double quotation marks are not valid for strings.

chg

Specifies how changed files are to be handled. It directs HP SRC to either ignore unchanged files, check them in anyway, or prompt the user. The available options are:

```
Changed
All
[blanks]
```

If you use the keyword, Changed, HP SRC creates a new revision for only those files that have been modified. A new revision is not created for unmodified files. The keyword, ALL, forces a new revision to be created for files, whether or not they have been modified. If the keyword is left blank, you are prompted (on a file-by-file basis) to verify whether unchanged files should create a new revision. The default for session mode is blanks. The default for batch mode is Changed.

desc

The name of the file that contains the text you want to use as the description text for the file. This parameter is intended only for the initial check-in of a file. If you enter a file name, the first 20 lines of the file are used as description text. If you do not enter this parameter for an initial check-in, HP SRC prompts for description text. If you do not want to be prompted, enter $NULL for this parameter. After the initial check-in, HP SRC ignores this parameter. Use the Chgdesc command to replace the existing description text for a file.

mask

Determines how HP SRC maintains the file. The available options are:

```
Nomask
Nummask
Fullmask
```

The Nomask option instructs HP SRC to examine the entire file when calculating the changes between revisions.

The Nummask option instructs HP SRC to ignore line numbers in a file when calculating the changes. This option always causes the file to be renumbered upon check-out.

The Fullmask option is typically used with binary files. It instructs HP SRC to store the new revisions of the file in their entirety. Keywords are not expanded with Fullmask. Fullmask causes HP SRC to keep the file as an archived file instead of a differenced file.

The mask parameter is only valid upon initial check-in and is applied to all future revisions of the file. Consequently, once a file is initially checked in using one of the mask options, all future check-ins follow the storage procedures for that particular option. The default for this parameter is Nomask for ASCII files and Fullmask for binary files. Although you can use any of the mask options for most ASCII files, HP SRC does not permit you to use any option other than Fullmask for binary files.

Refer to the section "Mask Options" for further information about this parameter.

list

If you specify the LP option, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to allow you to redirect

the output. You must use the MPE *FILE* command to equate SRCLIST to the device class you select. If you specify LP and a file equation does not exist for SRCLIST, HP SRC sets up the file equation *File SRCLIST=LP*. If you do not specify the LP option, the default is $STDLIST.

stat The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project group.

Mask Options

When you use the Nomask option, HP SRC examines the entire file when calculating the differences between the old revision and the new revision to be checked in. After it calculates the changes, it stores them in the Delta file. During initial check-in, however, it stores the complete text.

The Nummask option ignores line numbers, and files kept using the Nummask option are always renumbered when they are checked out. This option is primarily used for files where line numbers are important but do not have to be consistent between revisions. Consequently, this option produces undesirable results for those files in which line numbering is significant. For instance, in COBOL master and text files, original line numbers must be maintained in order to preserve file integrity. In this case, it would be advisable to use the Nomask option instead of the Nummask option.

The Fullmask option functions similarly to the Nomask option. The Nomask option instructs HP SRC to examine an entire ASCII file. Conversely, the Fullmask option instructs HP SRC to examine an entire binary file. The main difference between these two options, however, is the method in which the files are stored. For ASCII files (Nomask and Nummask options), only the file changes are stored in the Delta file upon check-in. For binary files (Fullmask option), complete copies of the files are always stored in the Delta files. This latter method is referred to as archiving, and consists of copying each revision of a file to a separate archive file. This process preserves the exact characteristics of the original file in every respect except for the date. The name of the file is kept in the Delta file instead of the text. Therefore, it is generally not advisable to use the Fullmask option except for binary files, because of the amount of storage space necessary to accommodate full storage of every revision. Note that files with user labels are stored as archived files unless you specify Nummask or Nomask.

Archiving And Differencing

When you attempt to check in a file to HP SRC for the first time, HP SRC checks the file to determine if it can be kept as a differenced revision (Delta files that store only the differences between revisions) or whether it must be stored as an archived revision. If it cannot be stored as a differenced revision, HP SRC displays the reason that the file must be archived, and then proceeds to archive the first revision in an archive file. If the file must be archived for some reason other than the fact that it is a binary file, HP SRC prompts you to verify whether or not you want to continue with the archiving.

HP SRC archives files with user labels that might be lost in the differencing process. When you specify Nomask or Nummask, the user labels are lost and HP SRC issues a warning.

HP SRC also archives files when it is unable to accommodate a file in which the record length exceeds 256 bytes. Therefore, whenever you check in a file with either the Nomask or the

Nummask option, but with a record size greater than 256 bytes, HP SRC checks in the file with the Fullmask (or archive) option.

Refer to chapter 1 for more information about archiving and differencing.

Examples

The following example shows the initial check-in of a file and a subsequent check-in, which supplies the log text for the revisions:

```
:chkin cobsrc#

Checking in file(s):

File            Revision
--------        --------
COBSRC1         1.1

  Add desc. text - max. 20 lines of 80 chars. End with '//' after prompt.
  >This routine is the main procedure for the application.
  >//

COBSRC2         1.1

  Add desc. text - max. 20 lines of 80 chars. End with '//' after prompt.
  >This routine is the routine that prints the paychecks.
  >//

COBSRC3         1.1

  Add desc. text - max. 20 lines of 80 chars. End with '//' after prompt.
  >This routine does the calculations for the payroll system.
  >//



:chkin  cobsrc#, , , , ,"Fix for Service Request #10257"

Checking in file(s):

File            Revision
--------        --------
COBSRC1         1.2
COBSRC2         1.4
COBSRC3         1.5
```

The following example shows a subsequent check-in of a file (not the initial check-in). Since the user did not provide the *logmsg* option, HP SRC prompts the user for log text for each revision:

```
:chkin cobsrc#

Checking in files:

File            Revision
--------        --------
COBSRC1         1.3

Add log text - max. 20 lines of 80 chars.  End with '//' after prompt.
>This routine is the main procedure for the application.
>//
COBSRC2         1.5

Add log text - max. 20 lines of 80 chars.  End with '//' after prompt.
>This routine is the routine that prints the paychecks.
>//
COBSRC3         1.6

Add log text - max. 20 lines of 80 chars.  End with '//' after prompt.
>This routine does the calculations for the payroll system.
>//
```

Chkincopy

Purpose

Checks in a file to HP SRC and generates a copy of the working file without a lock, typically to another group.

Syntax

```
chkincopy file [,[rev] [,[from] [,[to] [,[sym]
                    [,[replace] [,[log] [,[chg] [,[desc]
                    [,[mask] [,[list] [,[stat]]]]]]]]]]]
```

Capability Classes

Author2	User can check in files that he or she has checked out or locked. Can add symbolic names with the *sym* option, but can only specify the *replace* option for those files for which he or she is the owner.
Librarian	Can check in files, regardless of which user has checked out or locked the files.
Admin	

Description

Chkincopy checks in a file that you have previously checked out or have obtained a lock for, and copies it (without a lock) to the default group or to a user-specified group. It is recommended that you select an appropriate group name for your environment. This command makes the latest working file available to all users in the environment. When the copy portion of this command executes, it always expands keywords and always writes over any existing file.

In batch processing, for any check-in command (Chkin, Chkincopy, or Chkinplace) or the Chglog command, you should not incorporate the description text or log text in the job stream. You can, however, specify it as a string in the check-in commands.

If the file is an ASCII file, but its characteristics (record length, user labels, or non-standard file type) require archiving, the default in batch mode is to continue with the archiving. In interactive mode, however, you are prompted to verify whether or not you want to continue with archiving.

Parameters

file	The name of the file or set of files for which you want to change the description. You can optionally specify up to ten file names by separating the file names with colons (file1:file2: ... file10). You can use the characters, @, #, and ? as wild card characters for this parameter. These wild card characters have the same effect as those in the MPE command, LISTF. Note that you cannot use wildcards in a file

list where multiple file names are specified. For example, the command *Chkincopy myfile:src@* would be invalid.

rev The revision that you want to check in. When checking in, the default is to increment the revision number that was checked out. However, you can check a file back in using a larger revision number. For instance, the default for checking in revision number 1.1 is for it to be checked in as 1.2. You can, however, specify that the revision is to be checked back in as revision 1.3 if desired. You cannot, however, specify a lower revision number.

from The group name (or group.account) where the named file resides. The default is the logon group.

to The name of the group where you want to keep the copy. You may want to customize this parameter. The default is your logon group.

sym The symbolic name. This may be a character or a string.

replace This parameter specifies whether an existing symbolic name will be overwritten. The following options are available:

```
Replace
[ blanks ]
```

With the Replace keyword, HP SRC overlays the existing symbolic name without issuing a warning prompt. If the parameter is left blank, you are prompted to verify whether symbolic name replacement is to occur. The default for session mode is blanks. The default for batch mode is Replace.

log The log text for this particular revision of the file. If you specify the log text in a string as part of this command, then HP SRC does not prompt for this parameter. If the string includes embedded semicolons, blanks or commas, then it must be enclosed in double quotation marks (" ") and must have 80 characters or less. Otherwise, you can enter the string without quotation marks. Embedded single or double quotation marks are not valid for strings.

chg Specifies how changed files are to be handled. It directs HP SRC to either ignore unchanged files, check them in anyway, or prompt the user. The available options are:

```
Changed
All
[blanks]
```

If you use the keyword, Changed, HP SRC creates a new revision for only those files that have been modified. A new revision is not created for unmodified files. The keyword, All, forces a new revision to be created for files, whether or not they have been modified. If the keyword is left blank, you are prompted (on a file-by-file basis) to verify whether unchanged files should create a new revision. The default for session mode is blanks. The default for batch mode is Changed.

desc The name of the file that contains the text you want to use as the description text for the file. This parameter is intended only for the initial check-in of a file. If you enter a file name, the first 20 lines of the file are

used as description text. If you do not enter this parameter for an initial check-in, HP SRC prompts for description text. If you do not want to be prompted, enter $NULL for this parameter. After the initial check-in, HP SRC ignores this parameter. Use the Chgdesc command to replace the existing description text for a file.

mask Determines how HP SRC maintains the file. The available options are:

Nomask
Nummask
Fullmask

The Nomask option instructs HP SRC to examine the entire file when calculating the changes between revisions.

The Nummask option instructs HP SRC to ignore line numbers in a file when calculating the changes. This option always causes the file to be renumbered upon check-out.

The Fullmask option is typically used with binary files. It instructs HP SRC to store the new revisions of the file in their entirety. Keywords are not expanded with Fullmask. Fullmask causes HP SRC to keep the file as an archived file instead of a differenced file.

The mask parameter is only valid upon initial check-in and is applied to all future revisions of the file. Consequently, once a file is initially checked in using one of the mask options, all future check-ins follow the storage procedures for that particular option. The default for this parameter is Nomask for ASCII files and Fullmask for binary files. Although you can use any of the mask options for most ASCII files, HP SRC does not permit you to use any option other than Fullmask for binary files.

Refer to the section "Mask Options" for further information about this parameter.

list If you specify the LP option, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to allow you to redirect the output. You must use the MPE *FILE* command to equate SRCLIST to the device class you select. If you specify LP and a file equation does not exist for SRCLIST, HP SRC sets up the file equation *File SRCLIST=LP*. If you do not specify the LP option, the default is $STDLIST.

stat The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project group.

Mask Options

When you use the Nomask option, HP SRC examines the entire file when calculating the differences between the old revision and the new revision to be checked in. After it calculates the changes, it stores them in the Delta file. During initial check-in, however, it stores the complete text.

The Nummask option ignores line numbers, and files kept using the Nummask option are always renumbered when they are checked out. This option is primarily used for files where line numbers are important but do not have to be consistent between revisions. Consequently, this option produces undesirable results for those files in which line numbering is significant. For instance, in COBOL master and text files, original line numbers must be maintained in order to preserve file integrity. In this case, it would be advisable to use the Nomask option instead of the Nummask option.

The Fullmask option functions similarly to the Nomask option. The Nomask option instructs HP SRC to examine an entire ASCII file. Conversely, the Fullmask option instructs HP SRC to examine an entire binary file. The main difference between these two options, however, is the method in which the files are stored. For ASCII files (Nomask and Nummask options), only the file changes are stored in the Delta file upon check-in. For binary files (Fullmask option), complete copies of the files are always stored in the Delta files. This latter method is referred to as archiving, and consists of copying each revision of a file to a separate archive file. This process preserves the exact characteristics of the original file in every respect except for the date. The name of the file is kept in the Delta file instead of the text. Therefore, it is generally not advisable to use the Fullmask option except for binary files, because of the amount of storage space necessary to accommodate full storage of every revision. Note that files with user labels are stored as archived files unless you specify Nummask or Nomask.

Archiving And Differencing

When you attempt to check in a file to HP SRC for the first time, HP SRC checks the file to determine if it can be kept as a differenced revision (Delta files that store only the differences between revisions) or whether it must be stored as an archived revision. If it cannot be stored as a differenced revision, HP SRC displays the reason that the file must be archived, and then proceeds to archive the first revision in an archive file. If the file must be archived for some reason other than the fact that it is a binary file, HP SRC prompts you to verify whether or not you want to continue with the archiving.

HP SRC archives files with user labels that might be lost in the differencing process. When you specify Nomask or Nummask, the user labels are lost and HP SRC issues a warning.

HP SRC also archives files when it is unable to accommodate a file in which the record length exceeds 256 bytes. Therefore, whenever you check in a file with either the Nomask or the Nummask option, but with a record size greater than 256 bytes, HP SRC checks in the file with the Fullmask (or archive) option.

Refer to chapter 1 for more information about archiving and differencing.

Example

```
:chkincopy src4, , , source, , ,"log text"
Checking in file(s):
 Destination group for copy: SOURCE
File          Revision
--------       --------
SRC4          1.6
```

Chkinplace

Purpose

Checks in a file into HP SRC, but does not purge the file from the working group or expand keywords in a file.

Syntax

```
chkinplace file [,[rev] [,[from] [,[sym] [,[replace]
                        [,[log] [,[chg] [,[desc] [,[mask]
                        [,[list] [,[stat]]]]]]]]]]
```

Capability Classes

Author2	User can check in files that he or she has checked out or locked. Can add symbolic names through use of the *sym* option, but can only specify the *replace* option for those files for which he or she is the owner.
Librarian	Can check in files, regardless of which user has checked out or locked the file.
Admin	

Description

Chkinplace enables you to save a revision of a file and continue editing. The command checks in a file you have previously checked out or have obtained a lock for, but leaves the file in the work group. HP SRC applies a lock to the revision that you check in, so that you maintain the lock but prevent formal check-out of the file. HP SRC does not expand keywords in the file but retains the same values from the last file check-out.

In batch processing, for any check-in command (Chkin, Chkincopy, or Chkinplace) or the Chglog command, you should not incorporate the description text or log text in the job stream. You can, however, specify it as a string in the check-in commands.

If the file is an ASCII file, but its characteristics (record length, user labels, or non-standard file type) make archiving necessary, the default in batch mode is to continue archiving. In interactive mode, however, HP SRC prompts you to verify whether or not you want to continue with archiving.

Parameters

file	The name of the file or set of files for which you want to change the description. You can optionally specify up to ten file names by separating the file names with colons (file1:file2: ... file10). You can use the characters, @, #, and ? as wild card characters for this parameter. These wild card characters have the same effect as those in the MPE command, LISTF. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Chkinplace myfile:src@* would be invalid.

rev

The revision that you want to check in. When checking in, the default is to increment the revision number that was checked out. However, you can check a file back in using a larger revision number. For instance, the default for checking in revision number 1.1 is for it to be checked in as 1.2. You can, however, specify that the revision is to be checked back in as revision 1.3 if desired. You cannot, however, specify a lower revision number.

from

The group name (or group.account) where the named file resides. The default is the the logon group.

sym

The symbolic name. This may be a character or a string.

replace

This parameter specifies whether an existing symbolic name will be overwritten. The following options are available:

```
Replace
[ blanks ]
```

With the Replace keyword, HP SRC overlays the existing symbolic name without issuing a warning prompt. If the parameter is left blank, you are prompted to verify whether symbolic name replacement is to occur. The default for session mode is blanks. The default for batch mode is Replace.

log

The log text for this particular revision of the file. If you specify the log text in a string as part of this command, then HP SRC does not prompt for this parameter. If the string includes embedded semicolons, blanks or commas, then it must be enclosed in double quotation marks (" ") and must have 80 characters or less. Otherwise, you can enter the string without quotation marks. Embedded single or double quotation marks are not valid for strings.

chg

Specifies how changed files are to be handled. It directs HP SRC to either ignore unchanged files, check them in anyway, or prompt the user. The available options are:

```
Changed
All
[blanks]
```

If you use the keyword, Changed, HP SRC creates a new revision for only those files that have been modified. A new revision is not created for unmodified files. The keyword, All, forces a new revision to be created for files, whether or not they have been modified. If the keyword is left blank, you are prompted (on a file-by-file basis) to verify whether unchanged files should create a new revision. The default for session mode is blanks. The default for batch mode is Changed.

desc

The name of the file that contains the text you want to use as the description text for the file. This parameter is intended only for the initial check-in of a file. If you enter a file name, the first 20 lines of the file are used as description text. If you do not enter this parameter for an initial check-in, HP SRC prompts for description text. If you do not want to be prompted, enter $NULL for this parameter. After the initial check-in, HP SRC ignores this parameter. Use the Chgdesc command to replace the existing description text for a file.

mask Determines how HP SRC maintains the file. The available options are:

```
Nomask
Nummask
Fullmask
```

The Nomask option instructs HP SRC to examine the entire file when calculating the changes between revisions.

The Nummask option instructs HP SRC to ignore line numbers in a file when calculating the changes. This option always causes the file to be renumbered upon check-out.

The Fullmask option is typically used with binary files. It instructs HP SRC to store the new revisions of the file in their entirety. Keywords are not expanded with Fullmask. Fullmask causes HP SRC to keep the file as an archived file instead of a differenced file.

The mask parameter is only valid upon initial check-in and is applied to all future revisions of the file. Consequently, once a file is initially checked in using one of the mask options, all future check-ins follow the storage procedures for that particular option. The default for this parameter is Nomask for ASCII files and Fullmask for binary files. Although you can use any of the mask options for most ASCII files, HP SRC does not permit you to use any option other than Fullmask for binary files.

Refer to the section "Mask Options" for further information about this parameter.

list If you specify the LP option, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to allow you to redirect the output. You must use the MPE *FILE* command to equate SRCLIST to the device class you select. If you specify LP and a file equation does not exist for SRCLIST, HP SRC sets up the file equation *File SRCLIST=LP*. If you do not specify the LP option, the default is $STDLIST.

stat The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project group.

Mask Options

When you use the Nomask option, HP SRC examines the entire file when calculating the differences between the old revision and the new revision to be checked in. After it calculates the changes, it stores them in the Delta file. During initial check-in, however, it stores the complete text.

The Nummask option ignores line numbers, and files kept using the Nummask option are always renumbered when they are checked out. This option is primarily used for files where line numbers are important but do not have to be consistent between revisions. Consequently, this option produces undesirable results for those files in which line numbering is significant. For instance, in COBOL master and text files, original line numbers must be maintained in order to preserve file integrity. In this case, it would be advisable to use the Nomask option instead of the Nummask option.

The Fullmask option functions similarly to the Nomask option. The Nomask option instructs HP SRC to examine an entire ASCII file. Conversely, the Fullmask option instructs HP SRC to examine an entire binary file. The main difference between these two options, however, is the method in which the files are stored. For ASCII files (Nomask and Nummask options), only the file changes are stored in the Delta file upon check-in. For binary files (Fullmask option), complete copies of the files are always stored in the Delta files. This latter method is referred to as archiving, and consists of copying each revision of a file to a separate archive file. This process preserves the exact characteristics of the original file in every respect except for the date. The name of the file is kept in the Delta file instead of the text. Therefore, it is generally not advisable to use the Fullmask option except for binary files, because of the amount of storage space necessary to accommodate full storage of every revision. Note that files with user labels are stored as archived files unless you specify Nummask or Nomask.

Archiving And Differencing

When you attempt to check in a file to HP SRC for the first time, HP SRC checks the file to determine if it can be kept as a differenced revision (Delta files that store only the differences between revisions) or whether it must be stored as an archived revision. If it cannot be stored as a differenced revision, HP SRC displays the reason that the file must be archived, and then proceeds to archive the first revision in an archive file. If the file must be archived for some reason other than the fact that it is a binary file, HP SRC prompts you to verify whether or not you want to continue with the archiving.

HP SRC archives files with user labels that might be lost in the differencing process. When you specify Nomask or Nummask, the user labels are lost and HP SRC issues a warning.

HP SRC also archives files when it is unable to accommodate a file in which the record length exceeds 256 bytes. Therefore, whenever you check in a file with either the Nomask or the Nummask option, but with a record size greater than 256 bytes, HP SRC checks in the file with the Fullmask (or archive) option.

Refer to chapter 1 for more information about archiving and differencing.

Example

```
:chkinplace src4, , , , ,"log text for revision"

Checking in file(s):

File        Revision
--------      --------
SRC4        1.7
```

Chkout

Purpose

Checks out a file from the HP SRC environment with a lock.

Syntax

```
chkout file [,[rev] [,[to] [,[replace]
                [,[key] [,[list] [,[stat]]]]]]]
```

Capability Classes

Author1
Author2
Librarian
Admin

Description

Chkout checks out a file to your logon group with a lock. If you use the Nokeywords option of the *key* parameter, HP SRC does not expand keywords in the source file that is checked out.

If a requested revision is locked, even by the requestor, the requestor cannot check out the revision using this command. The requestor must unlock that revision (using the Unlock command) or take other action to release the lock before issuing the Chkout command.

Parameters

file — The name of the file or set of files to be checked out.

Optionally, up to ten file names can be specified by separating the file names with colons (i.e., file1:file2: ... file10).

You can use the characters, @, #, and ? as wild card characters for this parameter. These wild card characters have the same effect as those in the MPE command, LISTF. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Chkout myfile:src@* would be invalid.

rev — The revision or symbolic name that you want to check out. The default is the head revision.

to — The name of the group where you want to keep the copy. The default is to your logon group.

replace — This parameter specifies whether a file will be overwritten if an MPE file exists with the same name as the file being checked out. If no MPE file exists, this parameter is ignored. The following options are available:

```
Replace
Noreplace
[ blanks ]
```

With the Replace keyword, HP SRC overlays the existing file without issuing a warning prompt. The Noreplace keyword specifies that if an MPE file with this name already exists, the file will not be overwritten. If the parameter is left blank, you are prompted to verify whether you want to overlay the file. The default for session mode is blanks. The default for batch mode is Replace.

key This parameter specifies whether or not the keywords will be expanded. The following options are available:

```
Keywords
Nokeywords
```

The default, Keywords, expands the keywords, Log, $Date$, $Symbol$, etc., upon check-out. The Keywords option is ignored for files that were initially checked in with a Fullmask option.

list If LP is specified, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. If LP is not specified, the default is $STDLIST. If the LP option is specified and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for you (File SRCLIST=LP).

stat The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project's group.

Example

The following example checks out file SRC4 to create revision 1.7

```
:chkout src4

Checking out file(s):

File        Revision
--------      --------
SRC4        1.7
```

Copydelta

Purpose

Copies a file in the HP SRC environment.

Syntax

```
copydelta file, new [,[list] [,[stat]]]
```

Capability Classes

Author2	Can issue the Copydelta command only for files that the user owns.
Librarian	
Admin	

Description

Copydelta copies *file* to *new* (for both ASCII files and binary files) within the HP SRC environment. In addition to being accessible by the new name, you can still retrieve previous revisions under the old file name. Separate development can occur on both the old file and the new file.

If you use this command to rename one of your files, remember to purge the original file name. You can do this by issuing the Delrev command for the file name and specifying the All option.

Parameters

file	The current name of the file that you want to copy. Wildcard characters are not allowed in this parameter.
new	The new file name. Group name or account name qualification is ignored. Wildcard characters are not allowed in this parameter.
list	If LP is specified, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. If LP is not specified, the default is $STDLIST. If the LP option is specified and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for you (File SRCLIST=LP).
stat	The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project's group.

Example

The following example copies the file name Movechar to the file named Movesymb.

```
:copydelta movechar, movesymb

Delta file MOVECHAR has been copied to MOVESYMB
```

Copylog

Purpose

Copies the log text from a revision of a file in HP SRC to a separate MPE file.

Syntax

```
Copylog file [,[rev] [,[log] [,[replace]
                    [,[list] [,[stat]]]]]]
```

Capability Classes

Reader
Author1
Author2
Librarian
Admin

Description

Copies the log text from a specified revision of a file in HP SRC to a file that you can then modify using an editor. After modification, you would then issue the Chglog command with the modified file as a parameter. Copying the text does not affect the environment because locks are not involved.

The Copylog command is useful in batch processing for producing log text history in your job listing. To do this, issue the Copylog command for a file set and revision for a particular release (perhaps using a symbolic name), and allow the *log* file name to default to $STDLIST.

Parameters

file — The name of the file or set of files to be copied. Optionally, up to ten file names can be specified by separating the file names by colons in this parameter, i.e., `file1:file2: ... file10`, although this is not recommended.

If a file set is specified (either by specifying a file list or through use of wildcards), only the last file in the set has log text saved in *log*.

rev — The revision or symbolic name from which you want the log text copied. The default is the head revision.

log — The name of the file to which you want to copy the log text. If log is not specified, the log text is copied to $STDLIST.

replace — Specifies whether or not HP SRC should write over the log file if a log file already exists with the same name. The following options are available:

```
Replace
Noreplace
[ blanks ]
```

With the Replace keyword, HP SRC overlays the existing file without issuing a prompt. The Noreplace keyword specifies that if an MPE file already exists, the file is not overwritten. If the parameter is left blank, you are prompted to verify whether an overlay of the file should occur. The default for sessions is blanks . The default for batch is Replace.

list If LP is specified, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. If LP is not specified, the default is $STDLIST. If the LP option is specified and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for you (File SRCLIST=LP).

stat The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project's group.

Examples

```
:copylog src4, ,src4log

Copying log text into MPE file SRC4LOG from:

File        Revision
----------    --------
SRC4        1.5



:copylog src4,1.3,src4log

Copying log text into MPE file SRC4LOG from:

File        Revision
----------    --------
SRC4        1.3
  SRC4LOG.MYGROUP.LOGON already exists.  Overwrite? (Y/N)
```

Copyrev

Purpose

Copies a file from HP SRC to your logon group without a lock.

Syntax

```
copyrev file [,[rev] [,[to] [,[replace]
                    [,[key] [,[list] [,[stat]]]]]]]
```

Capability Classes

Reader
Author1
Author2
Librarian
Admin

Description

Copies a file from HP SRC either to where you want to keep the copy or to your logon group if *to* is not specified. If you use the Nokeywords option, HP SRC does not expand keywords in the working file. Copyrev does not lock the file and cannot be followed by a Chkin command.

The Copyrev command is functional across accounts only if you are logged on in the account where you want to keep the revision.

Parameters

file — The name of the file or set of files to be copied. Optionally, up to ten file names can be specified by separating the file names by colons in this parameter, i.e., `file1:file2: ... file10`.

The characters, `@`, `#`, and `?`, can be used as wild card characters in the *file* parameter. These wild card characters have the same meanings as those in the MPE command, LISTF. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Copyrev myfile:src@* would be invalid.

rev — The revision or symbolic name that you want to copy. The default is the head revision.

to — The name of the group where you want to keep the copy. The default is to your logon group. It overrides any group specification on *filename.*

replace — This keyword specifies whether a file will be overwritten if an MPE file exists with the same name as the file being copied. If no MPE file exists, this parameter is ignored. The available options are:

```
Replace
Noreplace
[ blanks ]
```

With the Replace keyword, HP SRC overlays the existing file without issuing a prompt. The Noreplace keyword specifies that if an MPE file already exists, the file will not be overwritten. If the parameter is left blank, you are prompted to verify whether an overlay of the file should occur. The default for sessions is blanks . The default for batch is Replace.

key Specifies whether you want to expand keywords (Log, $Date$, $Symbol$, etc.) when the working file is created. The available options are:

```
Keywords
Nokeywords
```

The default, Keywords, expands the keywords.

list If LP is specified, sends your output to the system printer. HP SRC uses the file named SRCLIST to allow you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. The default, if LP is not specified, is $STDLIST.

stat The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project's group.

Examples

```
:copyrev src4

Retrieving a copy of file(s):
File          Revision
----------      --------
SRC4          1.6
```

```
:copyrev src4,1.3, , , nokeywords

Retrieving a copy of file(s):
File          Revision
----------      --------
SRC4          1.3
```

Deldiff

Purpose

Deletes the differences created by a revision or for a revision range from the working file.

Syntax

`deldiff` *file, rev* [,[*from*] [,[*sync*] [,[*list*] [,[*stat*]]]]]

Capability Classes

Author1
Author2
Librarian
Admin

Description

This command is used primarily for removing the changes made for a revision and applies to merging branch revisions. Deldiff deletes the changes created by *revision1,* or for *revision1* through *revision2,* from a working file.

The Deldiff command requires a working file in which to make the changes. Therefore, the Deldiff command is usually preceded by either the Chkout command or the Copyrev command.

One application for this command would be to test a current copy of software in which you suspect a bug was introduced in a much earlier revision. Refer to chapter 3, "Branching And Merging", for further information.

Parameters

file — The name of the file or set of files from which the revision changes are to be removed. Optionally, up to ten file names can be specified by separating the file names by colons in this parameter, i.e., `file1:file2: ... file10`.

The characters, `@`, `#`, and `?`, can be used as wild card characters in the *file* parameter. These wild card characters have the same meanings as those in the MPE command, LISTF. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Deldiff myfile:src@* would be invalid.

rev — The range of revisions of a file or symbolic names in which the changes will be removed from the working file. Two forms of this range are valid: *revision1* or *revision1-revision2.* The changes made for the revision specified, or for all of the revisions specified in the range, are removed from the working file.

from — The group name (or group.account) where the named file resides. The default is the the logon group.

sync Specifies the number of records that must match between the files before a record of text is declared unchanged. This determines when the differences cease and the files return to synchronization. Expected input is an integer. The default is 4.

As a guideline, if the same set of lines repeat several times, you may want to increase the *sync* count to reduce the number of differences.

list If LP is specified, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. If LP is not specified, the default is $STDLIST. If the LP option is specified and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for the user (File SRCLIST=LP).

stat The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project's group.

Example

The following example deletes the changes that were introduced by revision 1.3.

```
:chkout src4
:deldiff src4, 1.3

Deleting Differences:

File      Rev Range      Working File     Conflict(s)
-----     ----------      -------------    ------------

SRC4      1.3            SRC4.JOHN.TOOLS   1



:print src4

Begin
???????????? Beginning of Conflict 1 ??????????????????????????????
 If a=b then
???????????? Middle of Conflict 1 ???????????????????????????????
 If a=e then
???????????? End of Conflict 1 ?????????????????????????????????
   begin
    a:= 1;
    b:= c;
   end;
end.
```

Delrev

Deletes the selected revision(s) from a file or file set.

Syntax

`delrev` *file,rev* [,[*confirm*] [,[*list*] [,[*stat*]]]]

Capability Classes

Author2 — Can delete revisions only for those files that the user owns.

Librarian

Admin

Description

Delrev deletes the revision or revisions of a specified file. If all of the revisions for a file are specified in the range, the file is deleted from the environment. If a revision is specified that has branch revisions, or if a revision that has a branch is specified in the range of revisions, the deletion is not permitted.

Parameters

file — The name of the file for which revisions are to be deleted. Optionally, up to ten file names can be specified by separating the file names by colons in this parameter, i.e., `file1:file2: ... file10`.

The characters, `@`, `#`, and `?`, can be used as wild card characters in the *file* parameter. These wild card characters have the same meanings as those in the MPE command, `LISTF`. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Delrev myfile:src@* would be invalid.

rev — The range of revisions or symbolic names of a file to be deleted. The valid forms of the revision range are:

revision
Deletes this revision.

revision1-revision2
Deletes a range of revisions (from *revision1* through *revision2*). The revisions must be contiguous revisions on the trunk or branch and cannot contain a branch. For example, the command Delrev 1.1-1.3 is invalid if revision 1.2.1.1 exists.

-revision
Deletes the revisions up to and including the specified revision. If the revision is on a branch, deletion starts with the beginning of the branch.

revision-
Deletes from the specified revision to the end of the branch or trunk.

ALL
If the keyword ALL is used, HP SRC deletes the entire file from the HP SRC environment. Any MPE files with the same name are not deleted.

confirm

Specifies whether or not you are prompted when the last revision of the file is about to be deleted from the HP SRC environment. The following options are available:

```
Confirm
Noconfirm
```

If you specify the Confirm keyword, HP SRC prompts you. This occurs only if all revisions of the file are about to be deleted. If you specify the Noconfirm option, HP SRC does not prompt you and the file is deleted from the environment. The default for session mode is Confirm. The default for batch mode is Noconfirm.

list

If LP is specified, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. If LP is not specified, the default is $STDLIST. If the LP option is specified and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for you (File SRCLIST=LP).

stat

The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project's group.

Examples

```
:delrev cobsrc1,1.1.1.1-1.1.1.4

Deleting Revision(s):

File         Revision
--------      --------------
COBSRC1       1.1.1.1-1.1.1.4
```

```
:delrev cobsrc#,1.1

Deleting Revision(s):

File          Revision
--------       --------------
COBSRC1        1.1
COBSRC2        1.1
COBSRC3        1.1
```

Delsym

Purpose

Removes an existing symbolic name from a specified revision.

```
delsym file,sym [,[list] [,[stat]]]
```

Capability Classes

Author2	Can remove symbolic names only from files the user owns.
Librarian	
Admin	

Description

Deletes a symbolic name from a file or file set. The revision of the file that the symbol references is not affected.

Parameters

file

The name of the file or set of files to be removed. Optionally, up to ten file names can be specified by separating the file names by colons in this parameter, i.e., `file1:file2: ... file10`.

The characters, `@`, `#`, and `?`, can be used as wild card characters in the *file* parameter. These wild card characters have the same meanings as those in the MPE command, `LISTF`. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Delsym myfile:src@* would be invalid.

sym

The symbolic name. This may be a character or a string. Symbolic names can be up to 16 characters long. Because symbolic names are case-sensitive, you can use two symbolic names that are spelled the same, but use both upper and lowercase letters, such as TEST1 and test1. Refer to the section entitled "Specifying Revision Numbers Or Symbolic Names" earlier in this chapter for valid symbolic names.

list

If LP is specified, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. If LP is not specified, the default is $STDLIST. If the LP option is specified and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for you (File SRCLIST=LP).

stat

The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project's group.

Example

```
:delsym src@,ALPHA1

'ALPHA1' is the symbolic name being deleted from:

File        Revision
--------      --------
SRC1        1.5
SRC2        1.2
SRC3        2.2
SRC4        1.3
SRC5        1.25
SRC6        2.12
```

Deluser

Purpose

Deletes a user from the HP SRC environment.

Syntax

```
deluser user [,[list] [,[stat]]]
```

Capability Classes

Admin

Parameters

user — The name of the user or set of users to be deleted. This name should conform to the standard MPE logon format, i.e., *username.accountname.* Optionally, up to ten user names can be specified by separating the names with colons, i.e., *username.acctname1:*username.acctname2: ... *username.acctname10.*

list — If LP is specified, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. If LP is not specified, the default is $STDLIST. If the LP option is specified and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for you (File SRCLIST=LP).

stat — The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project's group.

Example

```
:deluser fred.tools


Deleting user(s):

User
--------------
FRED.TOOLS
```

Listdelta

Purpose

Lists files, their corresponding Delta files, and owner.

Syntax

```
listdelta [file] [,[list] [,[stat]]]
```

Capability Classes

Author2
Librarian
Admin

Description

This command is used primarily when recovering from system crashes.

The Listdelta command is also useful as a quick method of obtaining the names of file owners. Although this information can be obtained by issuing the Listrev command and specifying the Long format, the Listdelta command provides a faster method of displaying the same information. For each file selected, the corresponding Delta file and owner are displayed.

Parameters

file

The name of the file or set of files to be listed. Optionally, up to ten file names can be specified by separating the file names by colons in this parameter, i.e., `file1:file2: ... file10`. The default, `@`, lists all files.

The characters, `@`, `#`, and `?`, can be used as wild card characters in the *file* parameter. These wild card characters have the same meanings as those in the MPE command, `LISTF`. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Listdelta myfile:src@* would be invalid.

list

If LP is specified, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. If LP is not specified, the default is $STDLIST. If the LP option is specified and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for you (File SRCLIST=LP).

stat

The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project's group.

Example

```
:listdelta src@

HP SRC Stat file for the PUB.TOOLS environment

FILE:    DELTA:                OWNER:
-------- ---------------------   ----------------

SRC1     R53000CS.PUB.TOOLS       JANE.TOOLS
SRC3     R73000CS.PUB.TOOLS       JANE.TOOLS
SRC4     R83000CS.PUB.TOOLS       JANE.TOOLS
SRC2     R63000CS.PUB.TOOLS       MGR.TOOLS
SRC5     R14000CS.PUB.TOOLS       KEITH.TOOLS
SRC6     R32000CS.PUB.TOOLS       KEITH.TOOLS
```

Listdiff

Purpose

List the differences between revisions of a file.

Syntax

```
listdiff file [,[rev] [,[from] [,[spaces] [,[sync]
                    [,[list] [,[stat]]]]]]]
```

Capability Classes

Reader
Author1
Author2
Librarian
Admin

Description

Listdiff lists the differences between two revisions of a file and sends the changes to the standard listing device. The character(s) that preface each line indicate whether the line was added or deleted.

Note that for a device with less than 132 columns, each line wraps around unless the device is set to not wrap around.

Parameters

file The name of the set of files to be checked for differences. Typically, only one file would be checked at a time.

The characters, @, #, and ?, can be used as wild card characters in the *file* parameter. These wild card characters have the same meanings as those in the MPE command, LISTF. (NOTE: Wildcards may not be used in a file list where multiple file names are specified. For example, the following command would be invalid: Listdiff myfile:src@)

rev The range of revisions or symbolic names of a file from which the changes are to be searched. The valid forms are:

blanks
If left blank, then the contents of the working file is compared to the latest revision.

revision
This revision is compared to the working file.

revision1-revision2
This option lists the changes between the two revisions that are specified. Any working file is ignored.

from — The group name (or group.account) where the named file resides. The default is the logon group.

spaces — Specifies whether you want all characters, including spaces and tabs, to be considered in the comparison. The following options are available:

```
Spaces
Nospaces
```

If you want spaces and tabs ignored during the comparison, specify Nospaces. If you want a character-for-character comparison, specify Spaces. The default is Spaces.

sync — Specifies the number of records that must match between the files before a record of text is declared unchanged. This determines when the differences cease and the files return to synchronization. Expected input is an integer. The default is 4.

As a guideline, if the same set of lines repeat several times, you may want to increase the *sync* count to reduce the number of differences.

list — If LP is specified, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. If LP is not specified, the default is $STDLIST. If the LP option is specified and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for you (File SRCLIST=LP).

stat — The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project's group.

Example

The following shows source code for revisions 1.1 and 1.3, and then shows what occurs after you issue the Listdiff command.

SRC10 1.1

```
$control uslinit
 identification division.
 *
```

SRC10 1.3

```
$control uslinit,map
 identification division.
 program-id. revisions.
 author.     HP.
```

```
:listdiff src10,1.1-1.3

11/20/87  10:50 AM   HP SRC Stat file PUB.TOOLS  PAGE 1

Listing differences between 1.1 and 1.3 for file SRC10

Lines 1 through 3 changed to lines 1 through 4:

del     $control uslinit
del      identification division.
del     *
-----------------------------------------------
add     $control uslinit,map
add      identification division.
add      program-id. revisions.
add      author.     HP.

=============================================================

Total number of changes for file SRC10:  7

=============================================================
```

Listrev

Purpose

Lists revision information for the specified selection criteria.

Syntax

```
listrev [file] [,[rev] [,[locks] [,[author] [,[date]
        [,[form] [,[list] [,[stat]]]]]]]]
```

Capability Classes

Reader
Author1
Author2
Librarian
Admin

Description

Listrev displays revision information for each revision that matches the specified selection criteria. The Boolean "AND" is assumed for all parameters (*file, rev, locks, author,* and *date*). If specified parameters do not meet this criteria, HP SRC does not display revision information.

Parameters

file

The name of the file or set of files to be listed. Optionally, up to ten file names can be specified by separating the file names by colons in this parameter, i.e., `file1:file2: ... file10`. The default, `@`, lists all files.

The characters, `@`, `#`, and `?`, can be used as wild card characters in the *file* parameter. These wild card characters have the same meanings as those in the MPE command, `LISTF`. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Listrev myfile:src@* would be invalid.

rev

The range of revisions or symbolic names for which HP SRC is to report. If you do not enter a range, all revisions of the file are listed. Valid forms of this parameter are:

revision
Displays this revision.

revision1-revision2
Displays a range of revisions (from *revision1* through *revision2*). The revisions must be contiguous revisions on the trunk or branch.

-revision
Displays the revisions up to and including the specified revision. If the revision is on a branch, output starts with the beginning of the branch.

revision-
Displays from the specified revision to the end of the branch or trunk.

locks Specifies whether or not locked files are to be listed. The available options are:

```
Locks
Blanks
```

Locks displays only those files with locks. The default is blanks, which lists all files regardless of locks.

author The user name(s) of one or more MPE users, separated by colons. For example, *usera:userb:userc.*

date The date range (in the format *mm/dd/yy*) to be reported. If only one day is to be reported, specify the date as a range, as in 5/17/88-5/17/88. Valid forms are:

mm/dd/yy
Displays the latest revision created on or before *mm/dd/yy.*

mm/dd/yy-mm/dd/yy
Displays all revisions created between *mm/dd/yy* and *mm/dd/yy.*

mm/dd/yy-
Displays all revisions created on or after *mm/dd/yy.*

-mm/dd/yy
Displays all revisions created on or before *mm/dd/yy.*

form The reporting format to be used. The following options are available:

```
Long
Short
```

The Long reporting format provides a detailed description of the revisions and includes all description text for the file and log text for each revision. The default is Short.

list If LP is specified, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. If LP is not specified, the default is $STDLIST. If the LP option is specified and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for you (File SRCLIST=LP).

stat The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project's group.

Examples

The following example shows the Listrev command used in conjunction with the long form parameter.

```
:listrev cobtext#, , , , ,long

COBTEXT1

 Owner:    MARY.TOOLS
 Head Rev:  1.4
 Mask:     Nomask
 Prefix:    '*'
         Symbols: BETA          Rev: 1.4
                  A.01.04       Rev: 1.1
         Locks  : JOHN.TOOLS     Rev: 1.4
                  STEVE.TOOLS    Rev: 1.2

 Description:
 This is the source for the Display Module.
 ----------------------------------------------------
 Rev: 1.4
 Date: JAN 14, 1988, 4:05 PM
 Author: STEVE.TOOLS
 Log:
 Fix to code for expanded page number handling.
 ----------------------------------------------------
 Rev: 1.3
 Date: JAN 11, 1988, 9:02 AM
 Author: STEVE.TOOLS
 Log:
 Expanded code to handle 9999 pages instead of only 99 pages.
 ----------------------------------------------------
 Rev: 1.2
 Date: JAN 8, 1988, 3:41 PM
 Author: JOHN.TOOLS
 Log:
 Another fix.
 ----------------------------------------------------
 Rev: 1.1
 Date: JAN 5, 1988, 8:57 AM
 Author: JOHN.TOOLS
 Log:
 Initial revision.
```

Examples (Cont'd)

```
COBTEXT2

 Owner:     MARY.TOOLS
 Head Rev:   1.3
 Mask:      Nomask
 Prefix:     '*'
         Symbols: BETA          Rev: 1.3
         Locks  :  MARY.TOOLS    Rev: 1.3

 Description:
 This is the source for the Edit Module.
 ----------------------------------------------------------
 Rev: 1.3
 Date: JAN 14, 1988, 11:22 AM
 Author: JOHN.TOOLS
 Log:
 Formatting change.
 ----------------------------------------------------------
 Rev: 1.2
 Date: JAN 11, 1988,  9:02 AM
 Author: STEVE.TOOLS
 Log:
 Changed code to handle files larger than 32K bytes.
 Plus added some general reformatting.
 ----------------------------------------------------------
 Rev: 1.1
 Date: JAN 5, 1988, 8:57 AM
 Author: JOHN.TOOLS
 Log:
 Initial revision.
```

Examples (Cont'd)

The following examples show the Listrev command used in conjunction with the short form parameter:

```
:listrev @#,,locks,marsha:john:steve,-01/13/88
```

FILE	Revision	Date	Author	Lock
COBTEXT1	1.2.2.1.1.2.1.1	01/13/88	MARSHA.TOOLS	MARSHA.TOOLS
COBTEXT2	2.1	01/11/88	MARSHA.TOOLS	MARSHA.TOOLS
COBTEXT3	1.4.1.1	01/11/88	JOHN.TOOLS	STEVE.TOOLS
SRC1	1.2	01/12/88	STEVE.TOOLS	JOHN.TOOLS
SRC1	1.1	01/11/88	JOHN.TOOLS	JOHN.TOOLS
SRC2	2.1	01/13/88	STEVE.TOOLS	STEVE.TOOLS

```
:listrev @#,1.1-1.6,,steve,,short
```

FILE	Revision	Date	Author	Lock
COBTEXT2	1.1	12/12/87	STEVE.TOOLS	
SRC1	1.4	01/13/88	STEVE.TOOLS	
SRC1	1.2	01/12/88	STEVE.TOOLS	JOHN.TOOLS
SRC4	1.5	01/05/88	STEVE.TOOLS	

Listtree

Purpose

Lists a graphic diagram of the revisions for a file.

Syntax

```
listtree [file] [,[list] [,[stat]]]
```

Capability Classes

Reader
Author1
Author2
Librarian
Admin

Description

Displays graphic revision diagrams for one or more files. There are two report formats for this command, depending on whether there are more or less than 50 lines of output.

Parameters

file — The name of the set of files to be listed. Optionally, up to ten file names can be specified by separating the file names by colons in this parameter, i.e., `file1:file2: ... file10`. The default, `@`, lists all files.

The characters, `@`, `#`, and `?`, can be used as wild card characters in the *file* parameter. These wild card characters have the same meanings as those in the MPE command, LISTF. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Listtree myfile:src@* would be invalid.

list — If LP is specified, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. If LP is not specified, the default is $STDLIST. If the LP option is specified and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for you (File SRCLIST=LP).

stat — The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project's group.

Examples

The following format appears when you issue the Listtree command if there are less than 50 lines of output:

```
:listtree src#

File: SRC6

1.4
|
1.3
|
1.2
|---1.2.1.1
1.1   |
   1.2.1.2
```

Examples (Cont'd)

The following format is used for the Listtree command when the output consists of more than 50 lines. Notice the difference between this format and the previous format when displaying branches.

```
:listtree src#

FILE: SRC4

1.40
1.39
 1.39.1.1
 1.39.1.2
1.38
1.37
1.36
1.35
1.35
1.34
1.33
1.32
1.31
1.30
1.29
1.28
1.27
1.26
1.25
1.24
1.23
1.22
1.21
1.20
  .
  .
  .
1.1
```

Listusers

Purpose

Lists the current users that are configured in the HP SRC environment. These users are those whose names reside in the HP SRC access list.

Syntax

```
listusers [list] [,[stat]]
```

Capability Classes

Reader
Author1
Author2
Librarian
Admin

Parameters

list — If LP is specified, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. If LP is not specified, the default is $STDLIST. If the LP option is specified and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for you (File SRCLIST=LP).

stat — The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project's group.

Example

```
:listusers

User                    Security
-------------           --------
ALAN.TOOLS              AUTHOR2
BROWSER.TOOLS           READER
JOHN.TOOLS              AUTHOR2
MGR.TOOLS               ADMIN
PGM.TOOLS               AUTHOR1
JOAN.TOOLS              LIBRARIAN
STEVE.TOOLS             AUTHOR1
MARY.TOOLS              AUTHOR2
```

Lock

Purpose

Locks a revision of a specified file without checking it out.

Syntax

`lock` *file* `[,[`*rev*`] [,[`*list*`] [,[`*stat*`]]]]`

Capability Classes

Author1
Author2
Librarian
Admin

Description

Lock allows you to lock a file without checking it out. There can only be one lock per user per file. Multiple locks per user per file are not allowed in HP SRC.

Parameters

file — The name of the file or set of files to be locked. Optionally, up to ten file names can be specified by separating the file names by colons in this parameter, i.e., `file1:file2: ... file10`.

The characters, `@`, `#`, and `?`, can be used as wild card characters in the *file* parameter. These wild card characters have the same meanings as those in the MPE command, `LISTF`. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Lock myfile:src@* would be invalid.

rev — The revision or symbolic name of the file(s) that you want to lock. The default is the latest revision.

list — If LP is specified, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. If LP is not specified, the default is $STDLIST. If the LP option is specified and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for you (File SRCLIST=LP).

stat — The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project's group.

Example

```
:lock src4

Locking file(s):

File          Revision
--------        --------
SRC4          1.6
```

Recoverstat

Purpose

Performs recovery operations for the Stat file if a system crash occurs.

Syntax

```
recoverstat [list] [,[stat]]
```

Capability Classes

Admin

Description

The Stat file is a fixed size, and if it becomes full, HP SRC automatically expands it. During this expansion, the Stat file is locked. If a system crash occurs while the Stat file is being expanded, all users are denied access to the Stat file. When this occurs, you can issue the Recoverstat command to release the locks and allow access to the Stat file. (See Appendix B for more information on system recovery.)

Parameters

list — If LP is specified, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. If LP is not specified, the default is $STDLIST. If the LP option is specified and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for you (File SRCLIST=LP).

stat — The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project's group.

Example

```
:recoverstat

Flags reinitialized in SRCSTAT.FRED.ACCT
```

Srchelp

Purpose

Invokes the HP SRC Help Facility.

Syntax

```
srchelp
```

Srchelp Options

After you issue the Srchelp command, you can enter any command or keyword after the (>) prompt to obtain specific command or keyword information. The syntax for commands and keywords is shown below.

```
[Command]  [,parms]]
           [,examples]

[Keyword]

[keywords]
[help]
[exit]
```

Description

The Srchelp command invokes the HP SRC Help Facility, displays a list of the available commands and keywords, and provides specific instructions on using the Help Facility. The Help Facility provides both general and specific information for all of the HP SRC commands and keywords.

If you issue only the command name, you can obtain information for both the command parameters and the examples by pressing the RETURN key. You press the RETURN key to automatically display Parms information, and you press it again to automatically display Examples information.

If you do not want to display all the options, you can limit the command by entering the Command option, followed by either the Parms option or the Examples option, as in Adddiff Parms.

Command Options

Command	The HP SRC command name for which you want help.
parms	Displays descriptions of each of the parameters for the requested command.
examples	Displays examples of the requested command.
Keyword	Displays a brief description and syntax of the HP SRC keyword name for which you want help.

keywords	Displays a general description of HP SRC keywords and their usage.
help	Displays general information regarding use of the Help Facility.
exit	Exits the Help Facility.

Quick Help

You can quickly extract the needed information by specifying the Srchelp command and desired options at the same time. To do this, you would issue the Srchelp command, then specify the Command parameter and either the Parms option or the Examples option, if desired. The Help Facility automatically terminates after the information is displayed.

The following example shows this method of using the command:

```
:srchelp listusers, parms

LISTUSERS Parameters

list        - Directs your output to the specified device class.
              The available options are:
                    LP
                    [ blanks ]

              HP SRC uses the file, SRCLIST, to allow you to redirect the output.
              Use the MPE FILE command to equate SRCLIST to the device class
              you select. If list is not specified (blanks), the default is $STDLIST.
stat        - The name of the group and account where the delta files and
              the Stat file reside. The HP-supplied default is the PUB group of
              the logon account, but this may have been customized for your
              installation.

KEYWORDS: PARMS,EXAMPLES
```

Unlock

Purpose

Unlocks a revision of a specified file without checking it in.

Syntax

```
unlock file [,[rev] [,[list] [,[stat]]]]
```

Capability Classes

Author1	Can unlock only those files for which he or she owns the lock.
Author2	Can unlock only those files for which he or she owns the lock.
Librarian	
Admin	

Parameters

file

The name of the file or set of files to be unlocked. Optionally, up to ten file names can be specified by separating the file names by colons in this parameter, i.e., `file1:file2: ... file10`.

The characters, `@`, `#`, and `?`, can be used as wild card characters in the *file* parameter. These wild card characters have the same meanings as those in the MPE command, `LISTF`. Note that you cannot use wildcards in a file list where multiple file names are specified. For example, the command *Unlock myfile:src@* would be invalid.

rev

The revision or symbolic name of the file(s) that you want to unlock. The default is the *rev* that you have locked.

list

If LP is specified, HP SRC sends your output to the system printer. HP SRC uses the file named SRCLIST to enable you to redirect the output. You must use the MPE FILE command to equate SRCLIST to the device class you select. If LP is not specified, the default is $STDLIST. If the LP option is specified and a file equation does not exist for SRCLIST, HP SRC sets up a file equation for you (File SRCLIST=LP).

stat

The name of the group and account where the Delta files and the Stat file reside. The default is set to the PUB group of the logon account, but should be modified to reflect the name of your project's group.

Example

```
:unlock src4

Unlocking file(s):

File          Revision
--------        --------
SRC4          1.6
```

A

ERROR MESSAGES

This appendix lists all HP SRC error messages and also explains the cause of each message along with suggested corrective action. Italicized portions of the message represent a parameter, such as a number or command.

001 Invalid characters in file name (SRCERR 001)

There were invalid characters in the file name. Use only alpha, numeric, and wildcard characters for file names.

002 Could not close status file (SRCSTAT) (SRCERR 002)

An FCLOSE failure on SRCSTAT occurred. Examine the file system error returned.

003 Seek error on status file (SRCSTAT) (SRCERR 003)

An FSEEK failure on SRCSTAT occurred. Examine the file system error returned.

004 Read error on status file (SRCSTAT) (SRCERR 004)

An FREAD failure on SRCSTAT occurred. Examine the file system error returned.

005 Write error on status file (SRCSTAT) (SRCERR 005)

An FWRITE failure on SRCSTAT occurred. Examine the file system error returned.

007 Cannot open HP SRC environment in *Group.Account* (SRCERR 007)

The SRCSTAT file FOPEN cannot be opened. Examine the file system error returned.

008 File *filename* does not exist (SRCERR 008)

The requested MPE file does not exist. Use an existing MPE file.

009 Option after a file name is not expected (SRCERR 009)

An internal HP SRC error has occurred. Contact your HP representative.

010 "-" requires an option (SRCERR 010)

An internal HP SRC error has occurred. Contact your HP representative.

011 Option - *option letter* missing required data (SRCERR 011)

An internal HP SRC error has occurred. Contact your HP representative.

012 Invalid record sync. count for listing differences (SRCERR 012)

You entered a non-numeric value for the sync parameter of the Adddiff, Deldiff, or Listdiff commands, or the number you have entered is not in the range of 1-999,999,999. Enter a valid number or use the default (sync = 4).

013 *Name* is an invalid group name (SRCERR 013)

The group name for the stat group or to group (grp parameter) does not exist or the name is too long. Enter the appropriate group name.

014 *Name* is an invalid file name (SRCERR 014)

You specified an invalid file name. Verify the name given in the command for valid characters and length.

015 File name was not specified (SRCERR 015)

You did not specify a file name with the command. Reenter the command and specify a file name.

016 Invalid user name entered (SRCERR 016)

You entered a user name that is not a valid MPE user logon. Specify a valid MPE user name (user.account).

017 Missing end quote (SRCERR 017)

An internal HP SRC error has occurred. Contact your HP representative.

018 Unknown characters used with - *option letter* option (SRCERR 018)

An internal HP SRC error has occurred. Contact your HP representative.

019 Unknown characters in revision string (SRCERR 019)

You entered invalid characters for a revision string. Eliminate the invalid characters.

020 Revision range too long. Maximum length for symbols=16, Revisions=48 (SRCERR 020)

The command you entered exceeded the maximum length for symbols or revisions. Reduce the number of characters to less than or equal to the maximum allowed.

021 Too many entries in file or user list. Maximum = *number* (SRCERR 021)

You entered too many file or user names within one command. Reduce the number of file or user names to less than or equal to the maximum allowed.

022 FCONTROL Intrinsic error with control code *number1*.FSERR = *number2* (SRCERR 022)

A file system error or HP SRC internal error has occurred. Look up the file system error to determine the error, then contact your HP representative.

023 Revision *revision number* cannot be incremented (SRCERR 023)

The revision number cannot be incremented because the revision number would exceed the 7 character limit for either digit. Check in the file using a new number sequence or create a branch.

024 Revision *revision number* or greater does not exist (SRCERR 024)

The specified revision or revision range does not exist. Specify a valid revision or revision range.

025 Revision *revision number* is already locked by *User.Account* (SRCERR 025)

The revision specified is already locked. Only one lock per revision is allowed. Contact the user that has the revision locked and determine if the file can be checked in.

026 You already have revision *revision number* locked - one lock per user maximum (SRCERR 026)

You have already locked the file. Only one lock for a user is allowed per file. Check in or unlock the locked revision before checking out another revision.

027 INTERNAL ERROR: could not add a lock (SRCERR 027)

An HP SRC internal error has occurred. You should print the file system error message along with this message. Look up the file system error. If there is not enough data to solve the problem, contact your HP representative.

028 Revision *revision number* does not exist (SRCERR 028)

The revision for the specified file does not exist in the HP SRC environment. Specify a revision that exists for the file.

029 Symbol *symbol specified* is not defined (SRCERR 029)

The symbolic name does not exist for the file. Add the symbolic name to the appropriate revision of the file.

030 File could not be retrieved from the *Group.Account* environment (SRCERR 030)

The file could not be copied from the HP SRC environment into the specified workgroup. This message is accompanied with other messages. Refer to the text of these messages for the appropriate corrective action.

031 User must hold a lock in order to check in a file (SRCERR 031)

The file must be locked before you can check it in unless you are checking in the file for the first time. Lock the file before checking it in.

032 File not checked in (SRCERR 032)

HP SRC could not check the file into the environment. This message is accompanied with other messages. Refer to the message text for the appropriate corrective action.

034 Out of disk space *number* (SRCERR 034)

There was insufficient disc space on the system to continue processing your request. Contact your system administrator.

035 Unexpected Delta file *file name* exists (SRCERR 035)

A file already exists with this name that HP SRC is using to store the revision information for a file. Rename or purge the file and check in the file again.

036 Requested revision must be higher than the locked revision (SRCERR 036)

The revision number specified for the file was not greater than the locked revision. Specify a revision number greater than the locked revision.

037 Revision *revision number* is next on the branch after *revision number* (SRCERR 037)

You specified a revision number that was not large enough for checking in a file on a branch. Specify a revision number larger than the first revision number shown in the message.

038 Revision *revision number* is too low (SRCERR 038)

The specified revision number is too small. Specify a revision number larger than the locked revision number.

039 Revision specified for new branch does not match locked revision (SRCERR 039)

You attempted to create a branch in which the revision specified does not match the locked revision. Make sure the specified revision uses the same base numbers as the locked revision.

040 A new branch must be greater than *revision number* (SRCERR 040)

You specified a revision for a branch that was too low. Specify a revision greater than the one listed in the message.

041 Revision *revision number* is out of range (SRCERR 041)

You specified a revision that is not within the range of the existing revisions for the file. Specify a revision within the existing revisions for the file.

042 User does not have a lock on requested file *file name* (SRCERR 042)

You attempted to unlock a file that was not locked. No corrective action is necessary.

043 Revision string *revision specified* is not valid (SRCERR 043)

You specified invalid characters in a revision string. Specify a correct revision string.

045 Incompatible revisions given (SRCERR 045)

You specified two revisions that are not both on the same trunk or branch. Reissue the command according to this requirement. You may have to issue several commands to accomplish the desired result.

046 Cannot delete revisions which have a branch (SRCERR 046)

You cannot delete a revision range that includes a branch without first deleting the branch. Delete the branch before deleting the trunk revisions.

047 Cannot delete revisions which are locked (SRCERR 047)

You cannot delete revisions that are locked. Contact the user with the locked revision and have him or her unlock it.

048 *File name* does not exist in the *Group.Account* environment (SRCERR 048)

You did not check in the specified file into the HP SRC environment. Check in the missing file into the HP SRC environment.

049 Cannot create a new branch with revision *revision number* (SRCERR 049)

You attempted to create a branch and specified an incorrect revision number. Use a revision number larger than the one specified in message 37 (printed along with this message).

050 Unknown option: *character* (SRCERR 050)

An internal HP SRC error has occurred. Contact your HP representative.

051 Redefinition of revision number (SRCERR 051)

An internal HP SRC error has occurred. Contact your HP representative.

052 Redefinition of symbol (SRCERR 052)

An internal HP SRC error has occurred. Contact your HP representative.

053 Redefinition of *-letter* option (SRCERR 053)

An internal HP SRC error has occurred. Contact your HP representative.

054 Status file has been expanded (SRCINFO 054)

Expansion of the status file for additional files or users has successfully completed. No corrective action is necessary.

055 Environment group name missing (SRCERR 055)

The group name for the HP SRC environment is missing. Make sure the command you are executing has a valid group name for the STAT parameter.

056 Status file could not be locked (SRCERR 056)

An HP SRC error or file system error occurred while you attempted to lock the SRCSTAT file. Contact your HP representative if you cannot correct the error by looking up the HP SRC file system error and responding appropriately.

057 Substitution string results in truncation (SRCWARN 057)

The text used to expand a keyword is larger than the record size. Expand the record size by checking in the file with a larger record length.

058 File name after -e or -a does not apply - no update done (SRCERR 058)

An internal HP SRC error has occurred. Contact your HP representative.

059 Internal error: Write error in *text string* (SRCERR 059)

An FWRITE failure has occurred. If possible, respond to the file system error (message printed along with this message). If you cannot respond appropriately, contact your HP representative.

060 Wild card characters are not allowed in file lists (SRCERR 060)

When specifying a list of files, wildcard characters are not valid (e.g. chkin f@:x@:y@). Use the wildcard character only for a single file (e.g. file@).

068 Environment busy. Please wait ... (SRCINFO 068)

The SRCSTAT file must be expanded. No corrective action is necessary. HP SRC will enable you to proceed after the file is expanded.

069 Status file could not be expanded due to error (SRCERR 069)

Expansion of SRCSTAT file for additional users or files failed due to an internal HP SRC or file system error. Check the file system error and respond appropriately, if possible. Otherwise, contact your HP representative.

070 *File name* already exists and NOREPLACE was specified. Copy not done (SRCERR 070)

You specified a copylog command; the file specified to hold the log text already exists. Because you specified the Noreplace option, HP SRC cannot remove the file and complete the command. Either choose a different file name for the log text or purge the old one.

072 Status file created in *Group.Account* (group.account) (SRCINFO 072)

The HP SRC environment has been successfully created. No corrective action is necessary.

073 Status file in *Group.Account* being expanded. Please wait ... (SRCINFO 073)

Insufficient space exists in the SRCSTAT file for additional files or users. The file is being expanded for additional space. No corrective action is necessary.

078 Found revision: *revision number* (SRCINFO 078)

You specified an incomplete revision number. HP SRC provides this informational message indicating the revision being used. No corrective action is necessary.

085 No files matched the given filemask or file list (SRCERR 085)

Files listed in the command did not match any files in the environment. Specify a file or file list that exists in the HP SRC environment.

086 Invalid character '*character*' in symbol *symbol specified* (SRCERR 086)

HP SRC detected an invalid character in a symbolic name. Use only valid characters in a symbolic name.

087 Symbol must start with a letter (SRCERR 087)

You entered a symbolic name that did not begin with an alphabetic character. Use an alphabetic character as the first character of the symbolic name.

088 Unknown function. Could not perform request (SRCERR 088)

An internal HP SRC error has occurred. Contact your HP representative.

090 INTERNAL ERROR: new symbol could not be added (SRCERR 090)

An internal HP SRC error has occurred. Contact your HP representative.

091 Wild card characters are not allowed in group or account names (SRCERR 091)

There is a wild card character in either your group name or account name. Remove the wildcard from either the group name or account name when reissuing the command.

092 Adding of differences failed (SRCERR 092)

The adding of differences failed due to an error. Another message describing the error appears before this message is displayed. Respond appropriately to both messages.

093 Listing of differences failed (SRCERR 093)

The listing of differences failed due to an error. Another message describing the error appears before this message is displayed. Respond appropriately to both messages.

094 Deleting of differences failed (SRCERR 094)

The deleting of differences failed due to an error. Another message describing the error appears before this message is displayed. Respond appropriately to both messages.

096 *Text1 text2* (SRCERR 096)

This message appears whenever file system error messages occur. Your response depends on the message text displayed.

097 Error on command: *MPE command* (SRCERR 097)

The COMMAND intrinsic could not execute the MPE command displayed. Contact your system administrator.

098 *File name* has not changed. New revision not created (SRCERR 098)

The file you are checking in has not changed since the previous revision. If you want to check in the file, check it in without setting the CHG parameter to CHANGED.

099 User does not have a revision *revision number* or higher checked in (SRCERR 099)

The specified revision does not exist, nor do higher revisions. Specify a valid revision.

101 ERROR: *file name 1* mapped file *file name 2* is missing (SRCERR 101)

The file used to store revision information is missing. Restore the mapped file from your latest backup tape.

103 User name does not exist in environment (SRCERR 103)

You issued the Deluser command for a user that does not exist in the environment. Make sure you are using the correct environment and recheck the user name by using the Listusers command.

104 Bad date string *date specified* (SRCERR 104)

You entered an invalid date string. Enter the date in a MM/DD/YY format. The month must range from 1 to 12, the day from 1 to 31, and the year from 1 to 99.

105 Group *group* in account *account* not writable (SRCERR 105)

The group name does not exist, or the group capabilities do not enable you to write to the group. Request the account manager to create the group, or change the user or group capabilities.

106 Invalid or missing lockword on SRCSTAT file in *Group.Account* (SRCERR 106)

HP SRC does not recognize the lockword for the SRCSTAT file. Contact your HP representative.

107 String is too long (SRCERR 107)

One of the parameters entered has exceeded the maximum length. Check each of the parameters for their maximum length.

108 Option -*letter* ignored, missing data (SRCERR 108)

An internal HP SRC error has occurred. Contact your HP representative.

112 File being checked in does not match the file in the environment (SRCERR 112)

The file you are checking in does not match the file type of the file in the environment. Make sure the type of file you are attempting to check in has not changed inadvertently (i.e., ASCII to binary).

113 Cannot open *filename* (SRCERR 113)

An FOPEN failure on the file has occurred. Another message describing the problem should appear. Respond appropriately to these messages.

114 Internal error: Cannot close *file name* (SRCERR 114)

An FCLOSE failure on the file has occurred. Another message describing the problem should appear. Respond appropriately to these messages.

115 Internal error: Seek error in *procedure name* (SRCERR 115)

An FSEEK failure on the file has occurred. Another message describing the problem should appear. Respond appropriately to these messages.

116 File *file name* in use by another process (SRCERR 116)

HP SRC cannot gain exclusive access to the file. Contact your HP representative if you cannot correct the file system error.

117 Cannot purge file *file name* (SRCERR 117)

The MPE Purge command or FCLOSE intrinsic with the delete option failed to purge the file. The associated MPE or file system error accompanies this message. Respond to the MPE or file system error if possible. Otherwise, contact your HP representative.

118 New revision cannot be inserted between existing revisions (SRCERR 118)

You cannot insert new revisions between existing revisions except to create a new branch. Check in the file after the head revision, after one of the end nodes of a branch, or create a new branch.

119 Revision *revision number 1* cannot be created at locked revision *revision number 2* (SRCERR 119)

The revision you have specified for check-in is not valid for the lock held for the file. A new revision must continue along the trunk or branch, or a new branch must begin from the locked revision. Either let HP SRC choose the revision number for you, or choose a revision greater than the locked revision.

120 Trunk revisions can only be added to the head (SRCERR 120)

You cannot insert new revisions between existing revisions on the main trunk. Create a branch or check in the file after the head revision.

125 File system error (FSERR *FS number*) (SRCERR 125)

A file system error occurred. Respond to the file system error, if possible. Otherwise, contact your system administrator.

126 Environment file error: *number* (SRCERR 126)

An internal HP SRC error has occurred. Save the error code returned and contact your HP representative.

127 Corrupt environment - temporary status file exists (SRCERR 127)

HP SRC did not expect the existence of a temporary SRCSTAT file. Refer to Appendix B for information about crash recovery.

128 Corrupt environment - Delta file(s) and no status file (SRCERR 128)

Delta files exist (S#####RC), but the SRCSTAT file does not exist. Follow the recovery procedures in appendix B or restore the environment (SRCSTAT, S#####RC, A######??, B######??, K######??, and L######??) from the previous backup. Note if restoring the environment that all work done since the last backup will be lost.

129 Cannot rename file *file name 1* to *file name 2* (SRCERR 129)

The file cannot be renamed because of a file system error. Respond to the file system error, if possible. Otherwise, contact your system administrator.

130 Too many files found by LISTF for fileset (SRCERR 130)

More than 6000 files exist for the Chkin command that use a wild card. Divide the file set into several Chkin commands.

131 Attempting to clear EXPAND flag - Please wait ... (SRCINFO 131)

This is strictly an informational message. HP SRC did not expect an internal HP SRC flag to be set. HP SRC is attempting to clear the situation. No corrective action is necessary.

132 EXPAND flag in status file is ON - Please wait ... (SRCINFO 132)

Someone else is using the same environment and executing a command that is causing the SRCSTAT file to expand. If the problem still exists after about a minute, enter Ctrl Y to exit HP SRC. Enter LISTF SRCSTAT,2 and if the file is not being accessed, ask a user with Admin capabilities to issue the Recoverstat command.

133 Command Interpreter error (CIERR *CI number*) (SRCERR 133)

An error has occurred in calling the COMMAND intrinsic. If you cannot correct the error, contact your HP representative.

134 Due to file size the processing will take longer (SRCINFO 134)

The file is too large for processing to occur in memory. No corrective action is necessary. HP SRC will use a disc file to continue with processing.

135 Option -*letter 1* with option(s) -*letter 2* invalid (SRCERR 135)

An internal HP SRC error has occurred. Contact your HP representative.

136 User is already the owner of this file (SRCINFO 136)

You have attempted to change the ownership of a file to a user who already owns the file. No corrective action is necessary.

138 Internal error: Read error in *procedure name* (SRCERR 138)

An FREAD failure on the file has occurred. Respond appropriately to the file system error, if possible. Otherwise, contact your system administrator.

139 Multiple revisions matched symbol pattern *symbol specified* (SRCERR 139)

An internal HP SRC error has occurred. Contact your HP representative.

142 Requested function invalid for archived file revisions (SRCERR 142)

You have issued an HP SRC command that is not valid for archived (Fullmask) files such as Adddiff, Deldiff, and Listdiff. No corrective action is necessary.

143 Unexpected archive file *file name* exists (SRCERR 143)

While copying a Fullmask file, a file already exists with the internal name used to save the file. Rename or delete the file name listed and reissue the command.

144 FULLMASK option valid only at initial check-in of file (SRCERR 144)

You attempted to check in a file using the Fullmask option, which is only valid on initial check in. No corrective action is necessary.

145 No more revisions can be archived for this file (SRCERR 145)

You have reached the limit of 1352 revisions for archived files. Delete some of the older revisions before reissuing the command.

146 Archive file *file name* does not exist (SRCERR 146)

You attempted to save an archived revision with a non-existent file. Restore the missing file from the last backup tape.

147 FCOPY of *file name 1* to *file name 2* failed (SRCERR 147)

The FCOPY utility failed while attempting to copy a file. If possible, respond to the other messages displayed as well as this message. If unsuccessful, contact your HP representative.

148 Cannot get FLABELINFO for *file name* (SRCERR 148)

A file system error occurred while retrieving the file label information. If possible, correct the file system error listed. If unsuccessful, contact your system administrator.

149 Revision does not have any log text (SRCWARN 149)

You attempted to copy the log text from a revision that does not have any log text associated with it. No corrective action is necessary.

152 Too many records in log text file. First 20 used (SRCWARN 152)

The file containing the log text records contains more than 20 records. Only the first 20 records were used. Edit the file containing the log text and shorten the contents to 20 records or less. Then use the Chglog command to change the log text for the particular revision.

153 Truncation of log text input has occurred (SRCWARN 153)

The file containing the log text records has at least one record that exceeds the record length of the revision. Modify the file containing the log text records so that each of the records are shorter than the record size of the revision you are checking in.

154 User labels will be lost upon check-in (SRCWARN 154)

You are checking in a file containing user labels as a Nomask or Nummask file. Check in the file as a Fullmask file if you want to preserve the user labels.

156 Only one working file name allowed and no wildcards (SRCERR 156)

You entered a command in which either a file list or wildcard is not allowed. Eliminate the file list or wild card.

158 File *file name* already exists in the environment (SRCERR 158)

The new file name you have chosen for Copydelta has a duplicate name in the environment. Use a different name or delete the file already existing from the environment.

159 Unknown message number: *number* (SRCERR 159)

A message in the message catalog is missing. Contact your HP representative.

160 Revision specified does not have a lock (SRCERR 160)

You have not locked the revision to be processed. Lock the file before reissuing the command.

161 User lacks the capability to UNLOCK another user's lock (SRCERR 161)

You attempted to unlock a lock belonging to another user. Either ask the user with the locked file to unlock or check in the file, or ask a user with librarian capability to unlock the file for you.

162 User lacks the capability to CHGLOG another author's revision (SRCERR 162)

You cannot issue the Chglog command for another author's revision. Ask the author of the revision or someone with Librarian capability to change the log text.

163 Add of log text failed (SRCERR 163)

HP SRC could not finish changing the log text to the specified revision. Respond appropriately to the associated error messages displayed along with this message.

164 Add of log text successful (SRCINFO 164)

HP SRC has successfully processed the changed log text for a revision. No corrective action is necessary.

165 Log text retrieval successful (SRCINFO 165)

HP SRC has successfully retrieved the log text for a revision. No corrective action is necessary.

166 Log text retrieval failed (SRCERR 166)

HP SRC could not finish retrieving log text for the specified revision. Respond appropriately to the associated error messages printed along with this message.

167 User lacks the capability to copy another user's file (SRCERR 167)

You must own a file before you can copy it, unless you have Librarian or Admin capability. Have the owner or librarian make a copy of the file.

168 User lacks the capability to CHGPREFIX another user's file (SRCERR 168)

You must own a file before you can change its prefix, unless you have Librarian or Admin capability. Have the owner or librarian change the prefix.

169 Prefix text is unchanged. Maximum length of *number* characters exceeded (SRCERR 169)

The prefix you entered exceeded the maximum number of characters allowed. Shorten the prefix.

171 *Security class specified* is an invalid security class (SRCERR 171)

An Admin user attempted to add a user using an invalid security class. Use one of the valid security classes - Reader, Author1, Author2, Librarian, or Admin.

172 Cannot modify or delete your own capabilities (SRCERR 172)

An Admin user attempted to delete himself/herself or tried to lower his/her capabilities. Have another Admin user delete or lower the capabilities.

181 Security class in catalog is greater than *number* characters (SRCERR 181)

This is a localization error. A security class name defined in this catalog in Set 2 has too many characters. Contact your HP representative.

200 Could not access configured language table. Using Native-3000 (SRCERR 200)

Native Language Support is installed, but a configured character set attribute table is not defined. HP SRC is using the Native-3000 character set attribute table (USASCII). Contact your system administrator and define the character set attribute table for the language defined for your system.

201 Message number 1 in set 2 does not exist or is greater than 6 characters (SRCERR 201)

This is a localization error. The message containing the string for 'yes' responses is greater than 6 characters. Contact your HP representative.

202 Message number 2 in set 2 does not exist or is greater than 6 characters (SRCERR 202)

This is a localization error. The message containing the string for 'no' responses is greater than 6 characters. Contact your HP representative.

203 Read error on message catalog. Error # *number* (SRCERR 203)

An error has occurred in reading the message catalog. Refer to the Native Language Support manual to look up the CATREAD failure number. Respond appropriately if possible. Otherwise, contact your system administrator.

204 User lacks the capability to delete another user's symbol (SRCERR 204)

You have Author2 capability and, therefore, cannot delete the symbol of a revision for which you are not the author. Contact the author of the revision for which you want to delete the symbol and ask this person to delete the symbol, or ask the librarian to delete the symbol.

205 User lacks the capability to CHGDESC another user's file (SRCERR 205)

You have Author2 capability and, therefore, cannot replace the description text of a file for which you are not the owner. Contact the owner of the file for which you want to replace the description text and ask this person to replace the text, or ask the librarian to replace the text.

207 This file already exists and NOREPLACE was specified (SRCWARN 207)

The file already exists in MPE and you specified the Noreplace option for the Chkout or Copyrev command. Consequently, HP SRC did not overwrite the file. No corrective action is necessary.

208 Description or Log Text not added (SRCERR 208)

An error occurred while changing the description or log text. Respond appropriately to the other messages displayed.

209 Symbol exists and user lacks the capability to replace another user's symbol (SRCERR 209)

You have Author2 capability and, therefore, cannot replace the symbol of a revision for which you are not the author. Contact the author of the revision for which you want to replace the symbol and ask this person to delete the symbol so you can add it to your revision, or ask the librarian to move the symbol for you.

210 User lacks the capability to delete from files they don't own (SRCERR 210)

You have Author2 capability and, therefore, cannot delete a revision from a file that you do not own. Contact the owner of the file for which you want to delete revisions and ask that user to issue the command, or ask the librarian to issue the command.

211 Revision not deleted because -q was specified (SRCWARN 211)

This is an internal HP SRC message. This is not an error message. No corrective action is necessary.

212 *Revision range specified* is an invalid revision range (SRCERR 212)

The command you are issuing requires a revision range, and you have specified an invalid range. Refer to chapter 4 for the correct revision range syntax for the command you are executing, then reissue the command.

213 Revision length exceeds the maximum allowed (SRCERR 213)

The revision string length exceeds 48 characters. Use a shorter revision string.

214 Symbol length exceeds the maximum allowed (SRCERR 214)

The symbolic name exceeds the maximum length of 16 characters. Shorten the symbolic name to 16 characters or less.

215 The Native date could not be retrieved (SRCERR 215)

This is a Native Language Support subsystem error. Contact your system administrator.

216 Description text only allowed on initial check in. Parameter ignored (SRCWARN 216)

You can add description text while checking in a file only during initial check in of a file. To change the description text, use the Chgdesc command.

218 User does not own lock and more than one lock on file (SRCERR 218)

A Librarian or Admin user checked in another user's file and did not specify a revision while there was more than one lock on the file. Specify a revision to check in.

219 A revision must be specified. File not checked in (SRCERR 219)

This message accompanies message 218. Refer to message 218.

220 Locks do not match entered revision. File not checked in (SRCERR 220)

You attempted to check in a file owned by another user in which the specified revision does not match any of the locks on the file. List the locks on the file and specify a revision greater than one of the locked revisions.

221 Binary files are checked in as archive files (SRCINFO 221)

This is an informational message indicating that you checked in a binary file without specifying the Fullmask option. No corrective action is necessary.

222 Record length too long. File checked in as an archive file (SRCINFO 222)

This is an informational message indicating that HP SRC automatically checks in files with record lengths greater than 256 bytes as archive (Fullmask option) files. No corrective action is necessary.

223 File has user labels and will be checked in as an archive file (SRCINFO 223)

This is an informational message indicating that HP SRC checks in files with user labels as archive (Fullmask option) files. No corrective action is necessary.

224 File has a non standard format and will be checked in as an archive file (SRCERR 224)

This is an informational message indicating that HP SRC archives files (Fullmask option) in which the type is unknown. No corrective action is necessary.

225 Expecting line numbers in file (SRCERR 225)

You are checking in a file as a Nummask file and HP SRC could not find line numbers in the file. Edit the file and keep it as a numbered file.

226 Expecting COBOL line numbers in file (SRCERR 226)

You initially checked in a Nummask file in which HP SRC detected COBOL line numbers. Consequently, all subsequent revisions must contain COBOL line numbers. Reapply COBOL line numbers (first 6 columns of the file).

227 Expecting standard line numbers (non-COBOL) in file (SRCERR 227)

You initially checked in a Nummask file in which HP SRC detected standard line numbers. Consequently, all subsequent revisions must contain standard line numbers. Reapply standard line numbers (last 8 columns of the file).

228 Invalid COBOL line number found in file at record # *number* (SRCERR 228)

HP SRC detected an invalid digit in the line number field for a COBOL numbered file. Edit the file as an unnumbered file and correct the line number.

229 Invalid standard line number found in file at record # *number* (SRCERR 229)

HP SRC detected an invalid digit in the line number field for a standard numbered file. Edit the file as an unnumbered file and correct the line number.

231 *Revision range specified* is an invalid revision range for this command (SRCERR 231)

You entered an invalid revision range for the requested command. Refer to chapter 4 to determine the valid revision range for the requested command.

232 KSAM files are checked in as archive files (SRCINFO 232)

This is an informational message indicating that you checked in a KSAM file without specifying the Fullmask option. No corrective action is necessary.

250 The required parameter FILE is missing (SRCERR 250)

You have not specified the FILE parameter which HP SRC requires. Specify either a file or wildcard for the FILE parameter.

251 The required parameter REV is missing (SRCERR 251)

You have not specified the REV parameter which HP SRC requires. Specify a revision, revision range, or ALL for the REV parameter, depending on what is valid for the command issued.

253 The required parameter SYM is missing (SRCERR 253)

You have not specified the SYM parameter which HP SRC requires. Specify a string with 16 or less characters for the SYM parameter.

254 The required parameter USER is missing (SRCERR 254)

You have not specified the USER parameter which HP SRC requires. Specify a user name (user[.account]) for the USER parameter.

256 The required parameter NEW is missing (SRCERR 256)

You have not specified the NEW parameter which HP SRC requires. Specify a filename for the NEW parameter.

260 '*Parameter specified*' is an invalid REPLACE parameter (use REPLACE or "") (SRCERR 260)

You have specified something other than "replace" for the REPLACE parameter. Specify "replace" or leave the REPLACE parameter blank.

261 '*Parameter specified*' is an invalid LIST parameter (use LP or "") (SRCERR 261)

You have specified something other than "lp" for the LIST parameter. Specify "lp" or leave the LIST parameter blank.

262 '*Parameter specified*' is an invalid CHG parameter (use CHANGED, ALL or "") (SRCERR 262)

You have specified something other than "changed" or "all" for the CHG parameter. Specify "changed", "all", or leave the CHG parameter blank.

263 '*Parameter specified*' is an invalid MASK parameter (use NOMASK, NUMMASK, FULLMASK or "") (SRCERR 263)

You have specified something other than "nomask", "nummask", or "fullmask" for the Mask parameter. Specify "nomask", "nummask", "fullmask", or leave the MASK parameter blank.

264 '*Parameter specified*' is an invalid REPLACE parameter (use REPLACE, NOREPLACE or "") (SRCERR 264)

You have specified something other than "replace" or "noreplace" for the REPLACE parameter. Specify "replace", "noreplace", or leave the REPLACE parameter blank.

265 '*Parameter specified*' is an invalid KEY parameter (use KEYWORDS, NOKEYWORDS or "") (SRCERR 265)

You have specified something other than "keywords" or "nokeywords" for the KEY parameter. Specify "keywords", "nokeywords", or leave the KEY parameter blank.

266 '*Parameter specified*' is an invalid CONFIRM parameter (use CONFIRM, NOCONFIRM or "") (SRCERR 266)

You have specified something other than "confirm" or "noconfirm" for the CONFIRM parameter. Specify "confirm", "noconfirm", or leave the CONFIRM parameter blank.

267 '*Parameter specified*' is an invalid SPACES parameter (use SPACES, NOSPACES or "") (SRCERR 267)

You have specified something other than "spaces" or "nospaces" for the SPACES parameter. Specify "spaces", "nospaces", or leave the SPACES parameter blank.

268 '*Parameter specified*' is an invalid LOCKS parameter (use LOCKS or "") (SRCERR 268)

You have specified something other than "locks" for the LOCKS parameter. Specify "locks" or leave the LOCKS parameter blank.

269 '*Parameter specified*' is an invalid FORM parameter (use LONG, SHORT or "") (SRCERR 269)

You have specified something other than "long" or "short" for the FORM parameter. Specify "long", "short", or leave the FORM parameter blank.

281 '*Command specified*' is an unknown Software Revision Controller command (SRCERR 281)

HP SRC does not recognize the first identifier in the info string. Use the HPSRCUDC interface.

282 Found more parameters than in command definition (SRCERR 282)

HP SRC does not understand the command you have entered. You may have entered too many parameters. Check the command syntax in chapter 4 to ensure that you are entering the correct number of parameters.

283 HP SRC cannot understand '*Parameter specified*'. Either a comma is missing or the type is incorrect (i.e. a string where one was not expected) (SRCERR 283)

While HP SRC was parsing the command string given to it in the info string, it found something unexpected or a comma is missing. Check the command syntax in chapter 4 to ensure that you are entering the correct number and type of parameters.

300 Error in retrieving file information (FGETINFO) for file *file name* (SRCERR 300)

A file system error occurred while calling FGETINFO. A file system error message accompanies this message. Correct the file system error, if possible. Otherwise, contact your system administrator.

301 Error in reading from file (FREADDIR) for file *file name* (SRCERR 301)

A file system error occurred while calling FREADDIR. A file system error message accompanies this message. Correct the file system error, if possible. Otherwise, contact your system administrator.

302 Error in reading the file label (FREADLABEL) for file *file name* (SRCERR 302)

A file system error occurred while calling FREADLABEL. A file system error message accompanies this message. Correct the file system error, if possible. Otherwise, contact your system administrator.

303 File *file name* already exists. KSAM file could not be archived (SRCERR 303)

HP SRC attempted to use a file name to archive a KSAM file that already exists as an MPE file. Rename or purge the duplicate file and check in the KSAM file again.

304 Illegal ASCII digit in line numbers by a keyword (SRCERR 304)

An illegal numeric digit was found in the line number field of the file around an HP SRC keyword. Edit the file as an unnumbered file and correct the line number.

305 Could not expand Log text due to lack of space for line numbers (SRCWARN 305)

HP SRC ran out of line numbers while expanding keyword information. Renumber the file around the keyword that caused the problem.

306 FPOINT failure while determining available line numbers (SRCERR 306)

A file system error occurred while calling FPOINT. A file system error message accompanies this message. Correct the file system error, if possible. Otherwise, contact your system administrator.

307 Could not add all symbols to text due to lack of space for line numbers (SRCERR 307)

HP SRC ran out of line numbers while expanding keyword information. Renumber the file around the keyword that caused the problem.

309 Too many records in description text file. First 20 used (SRCWARN 309)

The file containing the description text records contains more than 20 records. Only the first 20 records were used. Edit the file containing the description text and shorten the contents to 20 records or less. Then use the Chgdesc command to change the description text for the particular revision.

310 Truncation of description text input has occurred (SRCWARN 310)

The file containing the description text records has at least one record that exceeds the record length of the revision. Modify the file containing the description text records so that each record is shorter than the record size of the revision you are checking in.

311 SRCSTAT is not a BINARY file with blocking factor of 1 (SRCERR 311)

The SRCSTAT file does not have the correct file characteristics. Restore the SRCSTAT file from the latest system backup.

312 Possible disc space shortage or fragmentation (SRCERR 312)

There is not enough disc space, or the disc space is too fragmented for HP SRC to continue processing. Contact your system administrator.

314 Group name "*group specified*" does not exist (SRCERR 314)

The group name specified in the command does not exist. Specify a valid group name, or create the group you are specifying.

315 Files with variable length records cannot contain line numbers (SRCERR 315)

HP SRC cannot handle variable length records containing line numbers. Check in the file using either Nomask or Fullmask.

316 Empty files cannot be checked in (SRCERR 316)

You cannot check empty files into the environment. No corrective action is necessary.

317 Message files cannot be checked in (SRCERR 317)

You cannot check a message file into the environment. No corrective action is necessary.

318 Maximum length for revision numbers is 7 (e.g. 9999999.9999999) (SRCERR 318)

You exceeded the maximum length for a revision number. Use a shorter revision number.

319 *Revision number 1* and *revision number 2* are incompatible revisions (SRCERR 319)

You have attempted to execute a command that requires both revisions to either be on the trunk or on the same branch. Your revisions do not meet this criteria. Reissue the command with a new revision range.

320 Could not open sort file. File system error # *number* (SRCERR 320)

An error occurred while creating the output file for sorting the file names to be processed. Look up the file system error and respond appropriately, if possible. Otherwise, contact your system administrator.

321 Internal HP SRC error while writing to the Delta file (SRCERR 321)

An error occurred while writing information to the Delta file. Contact your HP representative.

322 Revision is too long. Maximum length for Revisions=48 (SRCERR 322)

You exceeded the maximum length for revisions. Reduce the number of characters to less than or equal to the maximum.

323 Symbolic name is too long. Maximum length for symbols=16 (SRCERR 323)

You exceeded the maximum length for a symbolic name. Reduce the number of characters to less than or equal to the maximum.

324 SORT error while processing file set (SRCERR 324)

An error occurred in the SORT/3000 subsystem while attempting to process the requested file set. After this message appears, a message from the SORT subsystem appears that describes the problem. Respond to that message, if possible. Otherwise, contact your system administrator.

325 File equation for SRCSTAT references a file not named SRCSTAT (SRCERR 325)

HP SRC enables you to issue a file equation that specifies the group environment. The file equation is FILE SRCSTAT= SRCSTAT.<group>. This error appears when the file following the equal sign (=) is not SRCSTAT. Issue a new file equation for SRCSTAT in which the filename SRCSTAT follows after the equal sign (=).

326 The file equation for SRCSTAT is incorrectly qualified (SRCERR 326)

An HP SRC error occurred because of a file equation for SRCSTAT. Examine the file equation for SRCSTAT.

327 The new revision was not created (SRCINFO 327)

This is an informational message that appears when you provide a "no" response to the prompt, "Filename not changed. Create a new revision anyway?" The message informs you that the revision specified by the command was not created.

328 User *User.Account* has not been added to this environment (SRCERR 328)

A user must be added (with the ADDUSER command) to the environment in order to execute commands in an environment. Ask the system administrator to add you to the environment if you want to issue commands.

329 You have *capability 1* capability and *capability 2* is required for this command (SRCERR 329)

You do not have the capability to issue this command. Ask the system administrator to increase your capability if you need to issue the command.

330 No text found. Existing text not updated (SRCWARN 330)

You used the Chgdesc or Chglog command in a batch job without specifying a file, and the job stream did not have log or description text following the command. Consequently, HP SRC did not update the log or description text for the file. No corrective action is necessary.

331 Mask parameter only allowed on initial checkin. Parameter ignored (SRCERR 331)

You attempted to change the file type after initially checking the file in. To change the file type, check in the file under a different name, or remove the old file from the HPSRC environment (Delrev filename, all). You can then check in the file and specify the proper mask.

332 An ADDDIFF or DELDIFF with the base revision is not allowed (SRCERR 332)

You used the Adddif or Deldiff command and specified the base revision (either 1.1 or the current base if 1.1 was deleted) for one of the revisions. HP SRC cannot process the base revision correctly. Either specify a different revision, or merge manually using the Listdiff command.

333 Stat file is in MPE/V format. Converting to MPE/XL format (SRCINFO 333)

This is an informational message indicating that the HP SRC environment was transferred from an MPE/V system to an MPE/XL system. The SRCSTAT file has a different format on MPE/XL and MPE/V, so HP SRC automatically converts the file. No corrective action is necessary.

334 Stat file is in MPE/XL format. Converting to MPE/V format (SRCINFO 334)

This is an informational message indicating that the HP SRC environment was transferred from an MPE/XL system to an MPE/V system. The SRCSTAT file has a different format on MPE/XL and MPE/V, so HP SRC automatically converts the file. No corrective action is necessary.

335 Delta file for *file name* is busy. Retrying, please wait ... (SRCINFO 335)

The Delta file for the requested file is being accessed by another user performing a check-in. HP SRC attempts to access the file either every two seconds until the file is free, or after 10 seconds have passed if the user is working from a session, or after 10 minutes have passed if processing in batch mode. If the time limit has been reached, HP SRC ignores this file and continues with processing. If the file has not been processed, repeat the command later when the file is free.

336 Invalid record found in SRCSTAT at record # *number.* (SRCERR 336)

HP SRC detected an unknown record type in the SRCSTAT file. Call your HP representative.

337 The record size of *size number* is too large for HP SRC to process (SRCERR 337)

An unknown record type was found in the SRCSTAT file. Call your HP representative.

338 File names cannot be qualified with group or account (SRCERR 338)

The file name you entered was qualified with a group or account name. Reenter the command using either the *to* or *from* group parameters.

B

RECOVERING HP SRC FROM SYSTEM CRASHES

Unexpected hardware or software failure can corrupt the HP SRC environment. When this happens, essential Stat and Delta files can become unusable. In addition, leftover HP SRC internal work files remain in the environment.

This appendix provides procedures for restoring required files and removing leftover, unneeded files.

Restoring Essential Files

The essential files for a functioning HP SRC environment are:

- Stat file (SRCSTAT)
- Delta files for user working files (S#####RC)
- Archive files (A#####??)
- KSAM key files (K#####??)

For archived files, revision files are named in the format A*nnnnn??*, where *nnnnn* is the same unique Delta file number assigned to the HP SRC file at initial check-in and *??* is a two-letter sequence code assigned at the same time. For KSAM files, revision files for data files have the same name format as the archived files. However, revision files for key files are named in the format *Knnnnn??*, where *nnnnn* is a five-digit code and *??* is a two-letter sequence code assigned during check-in.

The two basic tasks involved in restoring the HP SRC environment are:

- Renaming temporary files
- Recovering the Stat (SRCSTAT) file

The following sub-sections provide procedures to perform these tasks.

Renaming Temporary Files

HP SRC processes temporary files to prevent corruption of the master file. When a crash occurs after the master file is purged and before the temporary files are renamed, you must rename the temporary files.

The temporary file names have a "T" prefix and share the remainder of the master file name. The Stat file temporary file is called TSRCSTAT. For Delta files, the initial "S" is replaced by a "T".

Follow this procedure to rename the files:

1. Locate and notate all of the "T" files.
2. Check that the corresponding "S" file is missing.
3. Rename the "T" file to the corresponding "S" name. TSRCSTAT should be renamed to SRCSTAT and the Delta files T#####RC should be renamed to S#####RC.

Restoring the SRCSTAT File

Flags are sometimes set in the SRCSTAT file for various reasons. If the system crashes while HP SRC is executing a command, the Admin user should reset these flags using the Recoverstat command.

Besides resetting flags for the SRCSTAT file, the file itself may be corrupted. When the SRCSTAT file is updated for some HP SRC command functions, it is possible that a system crash during a write sequence to this file may corrupt the file. The severity of the corruption depends on what portion of the file was being written at the time. The possible consequences and suggested corrective action are as follows:

- If a new user is being added to the environment during the write, no adverse effects will occur. Consequently, you can proceed to reinstate the user after the crash.
- If a new file is being added to the file list, no adverse effects will occur. Consequently, you can check in the user's working file again after the crash because the user's file was not purged when the crash occurred.
- Adverse effects can result if a system failure occurs between the time a new file has been entered into the HP SRC environment and the time the SRCSTAT file header has been updated to reflect the addition of the file (and its Delta file) if you did not use the Chkinplace command during check-in.

  If this happens, the Delta file exists, the user's working file does not exist, and the Stat file cannot associate the Delta file with the working file name. To verify this situation, issue the Listrev command using the Delta file name to determine if HP SRC still recognizes it.

  Follow this procedure to recover the Delta file:

  1. Edit the Delta file and remove everything except the working file file lines, which appear as a single block after the Delta file header information.
  2. Rename the Delta file to the working file name.
  3. Check in the file again to HP SRC.

Caution

Editing the Delta file as described is only acceptable to reclaim lost files due to system failure. Other tampering with either the Stat file or a Delta file can produce unrecoverable corrupted files.

- If a crash occurs during an update of the SRCSTAT file header, the Stat file may be unusable. The most recent back-up of the Stat file should be restored to the system. If new users were added since the last back-up, they should be reinstated.

  Files updated since the last back-up are not affected because the Stat file contains information about their existence in the HP SRC environment, but does not log

changes (which are all kept in the Delta files). New files added to HP SRC since the last back-up have S#####RC files existing, but are not recorded in the back-up SRCSTAT file.

To create new entries for these files, perform the following steps:

1. Find the S#####RC files corresponding to the new files entered into the HP SRC environment since the last back-up. These are usually the files with the highest ##### numbers. (The numbers are kept in reverse order. S10000RC is the first file checked in, and S72100RC is the 127th file in the environment.) You can determine which working file names map to the corresponding S#####RC files by reading the first record of the S#####RC files. The working file name appears in the first record.
2. Temporarily move the S#####RC files corresponding to the new files into another group.
3. Check in dummy files with the names of the working files you want to re-enter in the environment. The dummy files can be any size as long as they have the correct names.
4. Issue the Listdelta command for each dummy file you just checked in and save the results for use in the next two steps.
5. Purge the S#####RC files that you specified in the previous step.
6. Rename the moved S#####RC files (from step 2 above) to the appropriate names in the group where the HP SRC environment exists. The listing you received in step 4 indicates which names you should use when renaming the files.

Removing Leftover Files

You can optionally purge internal work files in the HP SRC environment that remain in the temporary file domain when HP SRC terminates. These files should not pose any problems when you reinitiate the HP SRC environment, since the internal work file names are purged from the appropriate domains before they are opened for use in the program.

Files that you can optionally purge are:

```
SRCARCF
SRCCONF1
SRCCONF2
SRCCONFT
SRCCOPYI
SRCDFT0
  to
SRCDFTn
SRCDOIT1
SRCDOIT2
SRCGREV0
SRCGREV1
SRCTEMP1
SRCTEMP2
SRCTEMP3
SRCTEMP4
T#####RC
TSRCSTAT
```

C

USING JOB CONTROL WORDS

HP SRC automatically sets up a job control word (JCW) that you can use to construct multiple-step UDCs or batch job streams.

The JCW is initially set to `Fatal0` to detect a fatal value if the HP SRC software aborts abnormally. When HP SRC finishes processing the requested function, the JCW resets to one of the following values:

VALUE	CAUSE
Fatal0(32768)	HP SRC terminates immediately. Processing in a multi-step UDC or job stream should be discontinued. Possible Causes: ■ I/O errors ■ Corrupt HP SRC environment ■ System failures ■ Program interruption by Ctrl-Y
Warn5000(21384)	This is a serious error. Processing in a multi-step UDC or job stream should be discontinued. If detected during program initialization, HP SRC immediately terminates. If detected while processing a file in a list of files, processing of that file terminates. Other files in the list continue to be processed. Possible Causes: ■ Invalid argument string (run-time `INFO`) ■ Unknown function code (run-time `PARM`) ■ Unauthorized user ■ Open failure on status file ■ Nonexistent file ■ Invalid file characteristics
Warn(16384)	This is a warning only. HP SRC continues processing. Possible Causes: ■ The default reply to a prompt caused the function to not complete ■ Revision(s) or symbol(s) not found ■ Truncation when substituting data into an HP SRC keyword
0 (zero)	Function performed without any errors or warnings.

Note

The value of JCW is the message reported that has the highest level of severity (except when interrupted by Ctrl-Y).

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SALES & SUPPORT OFFICES
Arranged alphabetically by country

Product Line Sales/Support Key

Key Product Line
- **A** Analytical
- **CM** Components
- **C** Computer Systems
- **E** Electronic Instruments & Measurement Systems
- **M** Medical Products
- **P** Personal Computation Products
- * Sales only for specific product line
- ** Support only for specific product line

IMPORTANT:These symbols designate general product line capability.They do not insure sales or support availability for all products within a line, at all locations.Contact your local sales office for information regarding locations where HP support is available for specific products.

HEADQUARTERS OFFICES

If there is no sales office listed for your area, contact one of these headquarters offices.

ASIA
Hewlett-Packard Asia Ltd.
47/F, 26 Harbour Rd.,
Wanchai, **HONG KONG**
G.P.O. Box 863, Hong Kong
Tel: 5-8330833
Telex: 76793 HPA HX
Cable: HPASIAL TD

CANADA
Hewlett-Packard (Canada) Ltd.
6877 Goreway Drive
MISSISSAUGA, Ontario L4V 1M8
Tel: (416) 678-9430
Telex: 069-8644

EASTERN EUROPE
Hewlett-Packard Ges.m.b.h.
Lieblgasse 1
P.O.Box 72
A-1222 **VIENNA,** Austria
Tel: (222) 2500-0
Telex: 1 3 4425 HEPA A

NORTHERN EUROPE
Hewlett-Packard S.A.
V. D. Hooplaan 241
P.O.Box 999
NL-118 LN 15 **AMSTELVEEN**
The Netherlands
Tel: 20 5479999
Telex: 18919 hpner

SOUTH EAST EUROPE
Hewlett-Packard S.A.
World Trade Center
110 Avenue Louis-Casai
1215 Cointrin, **GENEVA,** Switzerland
Tel: (022) 98 96 51
Telex: 27225 hpser
Mail Address:
P.O. Box
CH-1217 Meyrin 1
GENEVA
Switzerland

MIDDLE EAST AND CENTRAL AFRICA
Hewlett-Packard S.A.
Middle East/Central
Africa Sales H.Q.
7, rue du Bois-du-Lan
P.O. Box 364
CH-1217 Meyrin 1
GENEVA
Switzerland
Tel: (022) 83 12 12
Telex: 27835 hmea ch
Telefax: (022) 83 15 35

UNITED KINGDOM
Hewlett-Packard Ltd.
Nine Mile Ride
WOKINGHAM
Berkshire, RG113LL
Tel: 0344 773100
Telex: 848805/848814/848912

UNITED STATES OF AMERICA
Customer Information Center
(800) 752-0900
6:00 AM to 5 PM Pacific Time

EASTERN USA
Hewlett-Packard Co.
4 Choke Cherry Road
ROCKVILLE, MD 20850
Tel: (301) 948-6370

MIDWESTERN USA
Hewlett-Packard Co.
5201 Tollview Drive
ROLLING MEADOWS, IL 60008
Tel: (312) 255-9800

SOUTHERN USA
Hewlett-Packard Co.
2000 South Park Place
ATLANTA, GA 30339
Tel: (404) 955-1500

WESTERN USA
Hewlett-Packard Co.
5161 Lankershim Blvd.
NORTH HOLLYWOOD, CA 91601
Tel: (818) 505-5600

OTHER INTERNATIONAL AREAS
Hewlett-Packard Co.
Intercontinental Headquarters
3495 Deer Creek Road
PALO ALTO, CA 94304
Tel: (415) 857-1501
Telex: 034-8300
Cable: HEWPACK

ALGERIA
Hewlett-Packard Trading S.A.
Bureau de Liaison Alger
Villa des Lions
9, Hai Galloul
DZ-BORDJ EL BAHRI
Tel: 76 03 36
Telex: 63343 dlion dz

ANGOLA
Telectra Angola LDA
Empresa Técnica de Equipamentos
16 rue Cons. Julio de Vilhema
LUANDA
Tel: 35515,35516
Telex: 3134
E,P

ARGENTINA
Hewlett-Packard Argentina S.A.
Montaneses 2140/50
1428 **BUENOS AIRES**
Tel: 541-11-1441
Telex: 22796 HEW PAC-AR
A,C,E,P
Biotron S.A.C.I.M.e.I.
Av. Paso Colon 221, Piso 9
1399 **BUENOS AIRES**
Tel: 541-333-490,
541-322-587
Telex: 17595 BIONAR
M
Laboratorio Rodriguez
Corswant S.R.L.
Misiones, 1156 - 1876
Bernal, Oeste
BUENOS AIRES
Tel: 252-3958, 252-4991
A
Intermaco S.R.L.
Florida 537/71
Galeria Jardin - Local 28
1005 **BUENOS AIRES**
Tel: 393-4471/1928
Telex: 22796 HEW PAC-AR
P (Calculators)
Argentina Esanco S.R.L.
A/ASCO 2328
1416 **BUENOS AIRES**
Tel: 541-58-1981, 541-59-2767
Telex: 22796 HEW PAC-AR
A
All Computers S.A.
Montaneses 2140/50 5 Piso
1428 **BUENOS AIRES**
Tel: 781-4030/4039/783-4886
Telex: 18148 Ocme
P

AUSTRALIA

Adelaide, South Australia Office
Hewlett-Packard Australia Ltd.
153 Greenhill Road
PARKSIDE, S.A. 5063
Tel: 61-8-272-5911
Telex: 82536
Cable: HEWPARD Adelaide
A*,C,CM,E,P

Brisbane, Queensland Office
Hewlett-Packard Australia Ltd.
10 Payne Road
THE GAP, Queensland 4061
Tel: 61-7-300-4133
Telex: 42133
Cable: HEWPARD Brisbane
A,C,CM,E,M,P

Canberra, Australia Capital Territory Office
Hewlett-Packard Australia Ltd.
Thynne Street, Fern Hill Park
BRUCE, A.C.T. 2617
P.O. Box 257,
JAMISON, A.C.T. 2614
Tel: 61-62-80-4244
Telex: 62650
Cable: HEWPARD Canberra
C,CM,E,P

Melbourne, Victoria Office
Hewlett-Packard Australia Ltd.
31-41 Joseph Street
P.O. Box 221
BLACKBURN, Victoria 3130
Tel: 61-3-895-2895
Telex: 31-024
Cable: HEWPARD Melbourne
A,C,CM,E,M,P

Perth, Western Australia Office
Hewlett-Packard Australia Ltd.
Herdsman Business Park
CLAREMONT, W.A. 6010
Tel: 61-9-383-2188
Telex: 93859
Cable: HEWPARD Perth
C,CM,E,P

Sydney, New South Wales Office
Hewlett-Packard Australia Ltd.
17-23 Talavera Road
P.O. Box 308
NORTH RYDE, N.S.W. 2113
Tel: 61-2-888-4444
Telex: 21561
Cable: HEWPARD Sydney
A,C,CM,E,M,P

AUSTRIA
Hewlett-Packard Ges.m.b.h.
Verkaufsbuero Graz
Grottenhofstrasse 94
A-8052 **GRAZ**
Tel: 43-316-291-5660
Telex: 312375
C,E

Hewlett-Packard Ges.m.b.h.
Lieblgasse 1
P.O. Box 72
A-1222 **VIENNA**
Tel: 43-222-2500
Telex: 134425 HEPA A
A,C,CM,E,M,P

BAHRAIN
Green Salon
P.O. Box 557
MANAMA
Tel: 255503-250950
Telex: 84419
P

Wael Pharmacy
P.O. Box 648
MANAMA
Tel: 256123
Telex: 8550 WAEL BN
E,M
Zayani Computer Systems
218 Shaik Mubarak Building
Government Avenue
P.O. Box 5918
MANAMA
Tel: 276278
Telex: 9015 plans bn
P

BELGIUM
Hewlett-Packard Belgium S.A./N.V.
Blvd de la Woluwe, 100
Woluwedal
B-1200 **BRUSSELS**
Tel: (02) 32-2-761-31-11
Telex: 23494 hewpac
A,C,CM,E,M,P

BERMUDA
Applied Computer Technologies
Atlantic House Building
P.O. Box HM 2091
Par-La-Ville Road
HAMILTON 5
Tel: 295-1616
Telex: 380 3589/ACT BA
P

BOLIVIA
Arreliano Ltda
Av. 20 de Octubre #2125
Casilla 1383
LA PAZ
Tel: 368541
M

BRAZIL
Hewlett-Packard do Brasil S.A.
Alameda Rio Negro, 750-I. AND.
ALPHAVILLE
06400 Barueri SP
Tel: (011) 421.1311
Telex: (011) 71351 HPBR BR
Cable: HEWPACK Sao Paulo
CM,E
Hewlett-Packard do Brasil S.A.
Praia de Botafago 228-A-614
6. AND.-CONJ. 601
Edificio Argentina - Ala A
22250 **RIO DE JANEIRO, RJ**
Tel: (021) 552-6422
Telex: 21905 HPBR BR
Cable: HEWPACK Rio de Janeiro
E
Van Den Cientifica Ltda.
Rua Jose Bonifacio, 458
Todos os Santos
20771 **RIO DE JANEIRO, RJ**
Tel: (021) 593-8223
Telex: 33487 EGLB BR
A
ANAMED I.C.E.I. Ltda.
Rua Vergueiro, 360
04012 **SAO PAULO, SP**
Tel: (011) 572-1106
Telex: 24720 HPBR BR
M

Datatronix Electronica Ltda.
Av. Pacaembu 746-C11
SAO PAULO, SP
Tel: (118) 260111
CM

BRUNEI

Komputer Wisman Sdn Bhd
G6, Chandrawaseh Cmplx,
Jalan Tutong
P.O. Box 1297,
BANDAR SERI BEGAWAN
NEGARA BRUNI DARUSSALAM
Tel: 673-2-2000-70/26711
C,E,P

CAMEROON

Beriac
B. P. 23
DOUALA
Tel: 420153
Telex: 5351
C,P

CANADA

Alberta

Hewlett-Packard (Canada) Ltd.
3030 3rd Avenue N.E.
CALGARY, Alberta T2A 6T7
Tel: (403) 235-3100
A,C,CM,E*,M,P*

Hewlett-Packard (Canada) Ltd.
11120-178th Street
EDMONTON, Alberta T5S 1P2
Tel: (403) 486-6666
A,C,CM,E,M,P

British Columbia

Hewlett-Packard (Canada) Ltd.
10691 Shellbridge Way
RICHMOND,
British Columbia V6X 2W8
Tel: (604) 270-2277
Telex: 610-922-5059
A,C,CM,E*,M,P*

Hewlett-Packard (Canada) Ltd.
121 - 3350 Douglas Street
VICTORIA, British Columbia V8Z 3L1
Tel: (604) 381-6616
C

Manitoba

Hewlett-Packard (Canada) Ltd.
1825 Inkster Blvd.
WINNIPEG, Manitoba R2X 1R3
Tel: (204) 694-2777
A,C,CM,E,M,P*

New Brunswick

Hewlett-Packard (Canada) Ltd.
814 Main Street
MONCTON, New Brunswick E1C 1E6
Tel: (506) 855-2841
C

Nova Scotia

Hewlett-Packard (Canada) Ltd.
Suite 111
900 Windmill Road
DARTMOUTH, Nova Scotia B3B 1P7
Tel: (902) 469-7820
C,CM,E*,M,P*

Ontario

Hewlett-Packard (Canada) Ltd.
3325 N. Service Rd., Unit W03
BURLINGTON, Ontario L7N 3G2
Tel: (416) 335-8644
C,M*

Hewlett-Packard (Canada) Ltd.
552 Newbold Street
LONDON, Ontario N6E 2S5
Tel: (519) 686-9181
A,C,CM,E*,M,P*

Hewlett-Packard (Canada) Ltd.
6877 Goreway Drive
MISSISSAUGA, Ontario L4V 1M8
Tel: (416) 678-9430
Telex: 069-83644
A,C,CM,E,M,P

Hewlett-Packard (Canada) Ltd.
2670 Queensview Dr.
OTTAWA, Ontario K2B 8K1
Tel: (613) 820-6483
A,C,CM,E*,M,P*

Hewlett-Packard (Canada) Ltd.
3790 Victoria Park Ave.
WILLOWDALE, Ontario M2H 3H7
Tel: (416) 499-2550
C,E

Quebec

Hewlett-Packard (Canada) Ltd.
17500 Trans Canada Highway
South Service Road
KIRKLAND, Quebec H9J 2X8
Tel: (514) 697-4232
Telex: 058-21521
A,C,CM,E,M,P*

Hewlett-Packard (Canada) Ltd.
1150 rue Claire Fontaine
QUEBEC CITY, Quebec G1R 5G4
Tel: (418) 648-0726
C

Hewlett-Packard (Canada) Ltd.
130 Robin Crescent
SASKATOON, Saskatchewan S7L 6M7
Tel: (306) 242-3702
C

CHILE

ASC Ltda.
Austria 2041
SANTIAGO
Tel: 223-5946, 223-6148
Telex: 392-340192 ASC CK
C,P

Jorge Calcagni y Cia
Av. Italia 634 Santiago
Casilla 16475
SANTIAGO 9
Tel: 9-011-562-222-0222
Telex: 392440283 JCYCL CZ
CM,E,M

Metrolab S.A.
Monjitas 454 of. 206
SANTIAGO
Tel: 395752, 398296
Telex: 340866 METLAB CK
A

Olympia (Chile) Ltda.
Av. Rodrigo de Araya 1045
Casilla 256-V
SANTIAGO 21
Tel: 225-5044
Telex: 340892 OLYMP
Cable: Olympiachile Santiagochile
C,P

CHINA, People's Republic of

China Hewlett-Packard Co., Ltd.
47/F China Resources Bldg.
26 Harbour Road
HONG KONG
Tel: 5-8330833
Telex: 76793 HPA HX
Cable: HP ASIA LTD
A*,M*

China Hewlett-Packard Co., Ltd.
P.O. Box 9610, Beijing
4th Floor, 2nd Watch Factory Main
Shuang Yu Shou, Bei San Huan Road
Hai Dian District
BEIJING
Tel: 33-1947 33-7426
Telex: 22601 CTSHP CN
Cable: 1920 Beijing
A,C,CM,E,M,P

China Hewlett-Packard Co., Ltd.
CHP Shanghai Branch
23/F Shanghai Union Building
100 Yan An Rd. East
SHANG-HAI
Tel: 265550
Telex: 33571 CHPSB CN
Cable: 3416 Shanghai
A,C,CM,E,M,P

COLOMBIA

Instrumentación
H. A. Langebaek & Kier S.A.
Carrerra 4A No. 52A-26
Apartado Aereo 6287
BOGOTA 1, D.E.
Tel: 212-1466
Telex: 44400 INST CO
Cable: AARIS Bogota
CM,E,M

Nefromedicas Ltda.
Calle 123 No. 9B-31
Apartado Aereo 100-958
BOGOTA D.E., 10
Tel: 213-5267, 213-1615
Telex: 43415 HEGAS CO
A

Compumundo
Avenida 15 # 107-80
BOGOTA D.E.
Tel: 57-214-4458
Telex: 39645466 MARCO
P

Carvajal, S.A.
Calle 29 Norte No. 6A-40
Apartado Aereo 46
CALI
Tel: 9-011-57-3-621888
Telex: 39655650 CUJCL CO
C,E,P

CONGO

Seric-Congo
B. P. 2105
BRAZZAVILLE
Tel: 815034
Telex: 5262

COSTA RICA

Cientifica Costarricense S.A.
Avenida 2, Calle 5
San Pedro de Montes de Oca
Apartado 10159
SAN JOSE
Tel: 9-011-506-243-820
Telex: 3032367 GALGUR CR
CM,E,M

O. Fischel R. Y. Cia. S.A.
Apartados 434-10174
SAN JOSE
Tel: 23-72-44
Telex: 2379
Cable: OFIR
A

CYPRUS

Telerexa Ltd.
P.O. Box 1152
Valentine House
8 Stassandrou St.
NICOSIA
Tel: 45 628, 62 698
Telex: 5845 tlrx cy
E,M,P

DENMARK

Hewlett-Packard A/S
Kongevejen 25
DK-3460 **BIRKEROD**
Tel: 45-02-81-6640
Telex: 37409 hpas dk
A,C,CM,E,M,P

Hewlett-Packard A/S
Rolighedsvej 32
DK-8240 **RISSKOV,** Aarhus
Tel: 45-06-17-6000
Telex: 37409 hpas dk
C,E

DOMINICAN REPUBLIC

Microprog S.A.
Juan Tomás Mejia y Cotes No. 60
Arroyo Hondo
SANTO DOMINGO
Tel: 565-6268
Telex: 4510 ARENTA DR (RCA)
P

ECUADOR

CYEDE Cia. Ltda.
Avenida Eloy Alfaro 1749
y Belgica
Casilla 6423 CCI
QUITO
Tel: 9-011-593-2-450975
Telex: 39322548 CYEDE ED
E,P

Medtronics
Valladolid 524 Madrid
P.O. 9171, **QUITO**
Tel: 2-238-951
Telex: 2298 ECUAME ED
A

Hospitalar S.A.
Robles 625
Casilla 3590
QUITO
Tel: 545-250, 545-122
Telex: 2485 HOSPTL ED
Cable: HOSPITALAR-Quito
M

Ecuador Overseas Agencies C.A.
Calle 9 de Octubre #818
P.O. Box 1296, Guayaquil
QUITO
Tel: 306022
Telex: 3361 PBCGYE ED
M

EGYPT

Sakrco Enterprises
P.O. Box 259
ALEXANDRIA
Tel: 802908, 808020, 805302
Telex: 54333
C

International Engineering Associates
6 El Gamea Street
Agouza
CAIRO
Tel: 71-21-68134-80-940
Telex: 93830 IEA UN
Cable: INTEGASSO
E

Sakrco Enterprises
70 Mossadak Street
Dokki, Giza
CAIRO
Tel: 706 440, 701 087
Telex: 9337
C

S.S.C. Medical
40 Gezerat El Arab Street
Mohandessin
CAIRO
Tel: 803844, 805998, 810263
Telex: 20503 SSC UN
M*

EL SALVADOR

IPESA de El Salvador S.A.
29 Avenida Norte 1223
SAN SALVADOR
Tel: 9-011-503-266-858
Telex: 301 20539 IPESA SAL
A,C,CM,E,P

ETHIOPIA

Seric-Ethiopia
P.O. Box 2764
ADDIS ABABA
Tel: 185114
Telex: 21150
C,P

FINLAND

Hewlett-Packard Finland
Field Oy
Niittylanpolku IO
00620 **HELSINKI**
Tel: (90) 757-1011
Telex: 122022 Field SF
CM

Hewlett-Packard Oy
Piispankalliontie 17
02200 **ESPOO**
Tel: (90) 887-21
Telex: 121563 HEWPA SF
A, C, E, M, P

FRANCE

Hewlett-Packard France
Z.I. Mercure B
Rue Berthelot
13763 Les Milles Cedex
AIX-EN-PROVENCE
Tel: 33-42-59-4102
Telex: 410770F
A,C,E,M

Hewlett-Packard France
64, Rue Marchand Saillant
F-61000 **ALENCON**
Tel: (33) 29 04 42
C**

Hewlett-Packard France
Batiment Levitan
2585, route de Grasse
Bretelle Autoroute
06600 **ANTIBES**
Tel: (93) 74-59-19
C

FRANCE (Cont'd)

Hewlett-Packard France
28 Rue de la République
Boite Postale 503
25026 **BESANÇON CEDEX, FRANCE**
Tel: (81) 83-16-22
Telex: 361157
C,E*

Hewlett-Packard France
ZA Kergaradec
Rue Fernand Forest
F-29239 **GOUESNOU**
Tel: (98) 41-87-90
E

Hewlett-Packard France
Chemin des Mouilles
Boite Postale 162
69131 **ECULLY** Cedex (Lyon)
Tel: 33-78-33-8125
Telex: 310617F
A,C,E,M,P*

Hewlett-Packard France
Parc d'activités du Bois Briard
2 Avenue du Lac
F-91040 **EVRY** Cedex
Tel: 3311/6077 9660
Telex: 692315F
C

Hewlett-Packard France
Application Center
5, avenue Raymond Chanas
38320 **EYBENS** (Grenoble)
Tel: (76) 62-57-98
Telex: 980124 HP GRENOB EYBE
C

Hewlett-Packard France
Rue Fernand. Forest
Z.A. Kergaradec
29239 **GOUESNOU**
Tel: (98) 41-87-90

Hewlett-Packard France
Parc Club des Tanneries
Batiment B4
4, Rue de la Faisanderie
67381 **LINCOLSHEIM**
(Strasbourg)
Tel: (88) 76-15-00
Telex: 890141F
C,E*,M*,P*

Hewlett-Packard France
Centre d'affaires Paris-Nord
Bâtiment Ampère
Rue de la Commune de Paris
Boite Postale 300
93153 **LE BLANC-MESNIL**
Tel: (1) 865-44-52
Telex: 211032F
C,E,M

Hewlett-Packard France
Parc d'activités Cadéra
Quartier Jean-Mermoz
Avenue du Président JF Kennedy
33700 **MERIGNAC** (Bordeaux)
Tel: 33-56-34-0084
Telex: 550105F
C,E,M

Hewlett-Packard France
3, Rue Graham Bell
BP 5149
57074 **METZ** Cedex
Tel: (87) 36-13-31
Telex: 860602F
C,E

Hewlett-Packard France
Miniparc-ZIRST
Chemin du Vieux Chêne
38240 **MEYLAN** (Grenoble)
Tel: (76) 90-38-40
980124 HP Grenobe
C

Hewlett-Packard France
Bureau vert du Bois Briand
Cheman de la Garde
- CP 212 212
44085 **NANTES** Cedex
Tel: (40) 50-32-22
Telex: 711085F
A,C,E,CM*,P

Hewlett-Packard France
125, Rue du Faubourg Bannier
45000 **ORLÉANS**
Tel: 33-38-62-2031
E,P*

Hewlett-Packard France
Zone Industrielle de Courtaboeuf
Avenue des Tropiques
91947 **LES ULIS** Cedex (Orsay)
Tel: 33-6-907 7825
Telex: 600048F
A,C,CM,E,M,P**

Hewlett-Packard France
15, Avenue de L'Amiral-Bruix
75782 **PARIS** Cedex 16
Tel: 33-15-02-1220
Telex: 613663F
C,P*

Hewlett-Packard France
242 Ter, Ave J Mermoz
64000 **PAU**
Tel: 33-59-80-3802
Telex: 550365F
C,E*

Hewlett-Packard France
6, Place Sainte Croix
86000 **POITIERS**
Tel: 33-49-41-2707
Telex: 792335F
C, E*

Hewlett-Packard France
47, Rue de Chativesle
51100 **REIMS**
Tel: 33-26-88-6919
C, P*

Hewlett-Packard France
Parc d'activités de la Poterie
Rue Louis Kerautel-Botmel
35000 **RENNES**
Tel: 33-99-51-4244
Telex: 740912F
A*,C,E,M,P*

Hewlett-Packard France
98 Avenue de Bretagne
76100 **ROUEN**
Tel: 33-35-63-5766
Telex: 770035F
C,E

Hewlett-Packard France
4, Rue Thomas-Mann
Boite Postale 56
67033 **STRASBOURG** Cedex
Tel: (88) 28-56-46
Telex: 890141F
C,E,M,P*

Hewlett-Packard France
Le Péripole III
3, Chemin du Pigeonnier de la Cépière
31081 **TOULOUSE** Cedex
Tel: 33-61-40-1112
Telex: 531639F
A,C,E,M,P*

Hewlett-Packard France
Les Cardoulines
Batiment B2
Route des Dolines
Parc d'activite de Valbonne
Sophia Antipolis
06560 **VALBONNE** (Nice)
Tel: (93) 65-39-40
C

Hewlett-Packard France
9, Rue Baudin
26000 **VALENCE**
Tel: 33-75-42-7616
C**

Hewlett-Packard France
Carolor
ZAC de Bois Briand
57640 **VIGY** (Metz)
Tel: (8) 771 20 22
C

Hewlett-Packard France
Parc d'activité des Prés
1, Rue Papin Cedex
59658 **VILLENEUVE D'ASCQ**
Tel: 33-20-91-4125
Telex: 160124F
C,E,M,P

Hewlett-Packard France
Parc d'activités Paris-Nord 11
Boite Postale 60020
95971 Roissy Charles de Gaulle
VILLEPINTE
Tel: (1) 48 63 80 80
Telex: 211032F
C,E,M,P*

GABON

Sho Gabon
P.O. Box 89
LIBREVILLE
Tel: 721 484
Telex: 5230

GERMAN FEDERAL REPUBLIC

Hewlett-Packard GmbH
Vertriebszentrum Mitte
Hewlett-Packard-Strasse
D-6380 **BAD HOMBURG**
Tel: (06172) 400-0
Telex: 410 844 hpbhg
A,C,E,M,P

Hewlett-Packard GmbH
Geschäftsstelle
Keithstrasse 2-4
D-1000 **BERLIN** 30
Tel: (030) 21 99 04-0
Telex: 018 3405 hpbln d
A,C,E,M,P

Hewlett-Packard GmbH
Verbindungsstelle Bonn
Friedrich-Ebert-Allee 26
5300 **BONN**
Tel: (0228) 234001
Telex: 8869421

Hewlett-Packard GmbH
Vertriebszentrun Südwest
Schickardstrasse 2
D-7030 **BÖBLINGEN**
Postfach 1427
Tel: (07031) 645-0
Telex: 7265 743 hep
A,C,CM,E,M,P

Hewlett-Packard GmbH
Zeneralbereich Mktg
Herrenberger Strasse 130
D-7030 **BÖBLINGEN**
Tel: (07031) 14-0
Telex: 7265739 hep

Hewlett-Packard GmbH
Geschäftsstelle
Schleefstr. 28a
D-4600 **DORTMUND**-41
Tel: (0231) 45001
Telex: 822858 hepdod
A,C,E

Hewlett-Packard gmbH
Reparaturzentrum Frankfurt
Berner Strasse 117
6000 **FRANKFURT/MAIN 60**
Tel: (069) 500001-0
Telex: 413249 hpffm

Hewlett-Packard GmbH
Vertriebszentrum Nord
Kapstadtring 5
D-2000 **HAMBURG** 60
Tel: 49-40-63-804-0
Telex: 021 63 032 hphh d
A,C,E,M,P

Hewlett-Packard GmbH
Geschäftsstelle
Heidering 37-39
D-3000 **HANNOVER** 61
Tel: (0511) 5706-0
Telex: 092 3259 hphan
A,C,CM,E,M,P

Hewlett-Packard GmbH
Geschäftsstelle
Rossiauer Weg 2-4
D-6800 **MANNHEIM**
Tel: 49-0621-70-05-0
Telex: 0462105 hpmhm
A,C,E

Hewlett-Packard GmbH
Geschäftsstelle
Messerschmittstrasse 7
D-7910 **NEU ULM**
Tel: 49-0731-70-73-0
Telex: 0712816 HP ULM-D
A,C,E*

Hewlett-Packard GmbH
Geschäftsstelle
Emmericher Strasse 13
D-8500 **NÜRNBERG** 10
Tel: (0911) 5205-0
Telex: 0623 860 hpnbg
C,CM,E,M,P

Hewlett-Packard GmbH
Vertriebszentrum Ratingen
Berliner Strasse 111
D-4030 **RATINGEN** 4
Postfach 31 12
Tel: (02102) 494-0
Telex: 589 070 hprad
A,C,E,M,P

Hewlett-Packard GmbH
Vertriebszentrum Muchen
Eschenstrasse 5
D-8028 **TAUFKIRCHEN**
Tel: 49-89-61-2070
Telex: 0524985 hpmch
A,C,CM,E,M,P

Hewlett-Packard GmbH
Geschäftsstelle
Ermlisallee
7517 **WALDBRONN** 2
Postfach 1251
Tel: (07243) 602-0
Telex: 782 838 hepk
A,C,E

GREAT BRITAIN
See United Kingdom

GREECE

Hewlett-Packard A.E.
178, Kifissias Avenue
6th Floor
Halandri-**ATHENS**
Greece
Tel: 301116473 360, 301116726 090
Telex: 221 286 HPHLGR
A,C,CM**,E,M,P

Kostas Karaynnis S.A.
8, Omirou Street
ATHENS 133
Tel: 32 30 303, 32 37 371
Telex: 215962 RKAR GR
A,C*,CM,E

Impexin
Intelect Div.
209 Mesogion
11525 **ATHENS**
Tel: 6474481/2
Telex: 216286
P

Haril Company
38, Mihalakopoulou
ATHENS 612
Tel: 7236071
Telex: 218767
M*

Hellamco
P.O. Box 87528
18507 **PIRAEUS**
Tel: 4827049
Telex: 241441
A

GUATEMALA

IPESA DE GUATEMALA
Avenida Reforma 3-48, Zona 9
GUATEMALA CITY
Tel: 316627, 317853,66471/5
9-011-502-2-316627
Telex: 3055765 IPESA GU
A,C,CM,E,M,P

HONG KONG

Hewlett-Packard Hong Kong, Ltd.
G.P.O. Box 795
5th Floor, Sun Hung Kai Centre
30 Harbour Road, Wan Chai
HONG KONG
Tel: 852-5-832-3211
Telex: 66678 HEWPA HX
Cable: HEWPACK HONG KONG
E,C,P

CET Ltd.
10th Floor, Hua Asia Bldg.
64-66 Gloucester Road
HONG KONG
Tel: (5) 200922
Telex: 85148 CET HX
CM

Schmidt & Co. (Hong Kong) Ltd.
18th Floor, Great Eagle Centre
23 Harbour Road, Wanchai
HONG KONG
Tel: 5-8330222
Telex: 74766 SCHMC HX
A,M

ICELAND

Hewlett-Packard Iceland
Hoefdabakka 9
112 **REYKJAVIK**
Tel: 354-1-67-1000
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Maruthunkuzhi
TRIVANDRUM 695 013
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115, Sarojini Devi Road
SECUNDERABAD 500 003
Tel: 310-184, 345-774
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Temple House, Temple Road
Blackrock, Co. **DUBLIN**
Tel: 88/333/99
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Hewlett-Packard Ltd.
75 Belfast Rd, Carrickfergus
Belfast BT38 8PH
NORTHERN IRELAND
Tel: 09603-67333
Telex: 747626
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P.O.Box 1270
JERUSALEM 91000
16, Ohaliav St.
JERUSALEM 94467
Tel: 533 221, 553 242
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Telex: 970291
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Immeuble "Le General"
Av. du General de Gaulle
01 BP 161
ABIDJAN 01
Tel: 321227
Telex: 22149
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JAPAN

Yokogawa-Hewlett-Packard Ltd.
152-1, Onna
ATSUGI, Kanagawa, 243
Tel: (0462) 25-0031
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Yokogawa-Hewlett-Packard Ltd.
Meiji-Seimei Bldg. 6F
3-1 Motochiba-Cho
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Tel: (0472) 25 7701
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Yasuda-Seimei Hiroshima Bldg.
6-11, Hon-dori, Naka-ku
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Tel: (082) 241-0611

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Towa Building
2-2-3 Kaigan-dori, Chuo-ku
KOBE, 650
Tel: (078) 392-4791
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Kumagaya Asahi 82 Bldg.
3-4 Tsukuba
KUMAGAYA, Saitama 360
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Shin-Kyoto Center Bldg.
614, Higashi-Shiokoji-cho
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KYOTO, 600
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7-8 Kokubun, 1 Chome, Sendai
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Nagoya Kokusai Center Building
1-47-1, Nagono, Nakamura-ku
NAGOYA, AICHI 450
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Yokogawa-Hewlett-Packard Ltd.
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Yokogawa-Hewlett-Packard Ltd.
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36-1 Yeoeuido-Dong
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Chung Khiaw Bank Building
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Hewlett-Packard de Mexico,
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JUAREZ
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Tel: 520-9127
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Monte Pelvoux No. 115
Lomas de Chapultepec, 11000
MEXICO, D.F.
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S.A. de C.V.
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Avenida Ejercito Nacional #579
2da y 3er piso
Colonia Granada 11560
MEXICO D.F.
Tel: 254-4433
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Hewlett-Packard de Mexico,
S.A. de C.V.
Czda. del Valle
409 Ote. 4th Piso
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Municipio de Garza
Garcia Nuevo Leon
66220 **MONTERREY**, Nuevo León
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Telex: 382410 HPMY
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Infograficas y Sistemas
del Noreste, S.A.
Rio Orinoco #171 Oriente
Despacho 2001
Colonia Del Valle
MONTERREY
Tel: 559-4415, 575-3837
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Blvd. Independencia No. 2000 Ote.
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TORREON, COAH.
Tel: 171-18-21-99
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MOROCCO

Etablissement Hubert Dolbeau & Fils
81 rue Karatchi
B.P. 11133
CASABLANCA
Tel: 3041-82, 3068-38
Telex: 23051, 22822
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Gerep
2, rue Agadir
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Tel: 272093, 272095
Telex: 23 739
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Sema-Maroc
Dept. Seric
6, rue Lapebie
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Tel: 260980
Telex: 21641
C,P

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Startbaan 16
NL-1187 XR **AMSTELVEEN**
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NL 2900AA **CAPELLE A/D IJSSEL**
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Telex: 21261 HEPAC NL
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Hewlett-Packard Nederland B.V.
Pastoor Petersstraat 134-136
P.O. Box 2342
NL 5600 CH **EINDHOVEN**
Tel: 31-40-32-6911
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C,E,P

NEW ZEALAND

Hewlett-Packard (N.Z.) Ltd.
5 Owens Road
P.O. Box 26-189
Epsom, **AUCKLAND**
Tel: 64-9-687-159
Cable: HEWPAK Auckland
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Hewlett-Packard (N.Z.) Ltd.
184-190 Willis Street
WELLINGTON
P.O. Box 9443
Courtenay Place, **WELLINGTON 3**
Tel: 64-4-887-199
Cable: HEWPACK Wellington
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Northrop Instruments & Systems Ltd.
369 Khyber Pass Road
P.O. Box 8602
AUCKLAND
Tel: 794-091
Telex: 60605
A,M

Northrop Instruments & Systems Ltd.
110 Mandeville St.
P.O. Box 8388
CHRISTCHURCH
Tel: 488-873
Telex: 4203
A,M

Northrop Instruments & Systems Ltd.
Sturdee House
85-87 Ghuznee Street
P.O. Box 2406
WELLINGTON
Tel: 850-091
Telex: NZ 3380
A,M

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Elmeco Nigeria Ltd.
45 Saka Tirubu St.
Victoria Island
LAGOS
Tel: 61-98-94
Telex: 20-117
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NORTHERN IRELAND
See United Kingdom

NORWAY

Hewlett-Packard Norge A/S
Folke Bernadottes vei 50
P.O. Box 3558
N-5033 **FYLLINGSDALEN** (Bergen)
Tel: 0047/5/16 55 40
Telex: 76621 hpnas n
C,E,M

Hewlett-Packard Norge A/S
Osterndalen 16-18
P.O. Box 34
N-1345 **OESTERAAS**
Tel: 47-2-17-1180
Telex: 76621 hpnas n
A,C,CM,E,M,P

Hewlett-Packard Norge A/S
Boehmergt. 42
Box 2470
N-5037 **SOLHEIMSVIK**
Tel: 0047/5/29 00 90

OMAN

Khimjil Ramdas
P.O. Box 19
MUSCAT/SULTANATE OF OMAN
Tel: 795 901
Telex: 3489 BROKER MB MUSCAT
P

Suhail & Saud Bahwan
P.O.Box 169
MUSCAT/SULTANATE OF OMAN
Tel: 734 201-3
Telex: 5274 BAHWAN MB
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Imtac LLC
P.O. Box 9196
MINA AL FAHAL/SULTANATE OF OMAN
Tel: 70-77-27, 70-77-23
Telex: 3865 Tawoos On
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PAKISTAN

Mushko & Company Ltd.
House No. 16, Street No. 16
Sector F-6/3
ISLAMABAD
Tel: 824545
Telex: 54001 Muski Pk
Cable: FEMUS Islamabad
A,E,P*

Mushko & Company Ltd.
Oosman Chambers
Abdullah Haroon Road
KARACHI 0302
Tel: 524131, 524132
Telex: 2894 MUSKO PK
Cable: COOPERATOR Karachi
A,E,P*

PANAMA

Electronico Balboa, S.A.
Calle Samuel Lewis, Ed. Alfa
Apartado 4929
PANAMA CITY
Tel: 9-011-507-636613
Telex: 368 3483 ELECTRON PG
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Cia Electro Médica S.A.
Los Flamencos 145, Ofc. 301/2
San Isidro
Casilla 1030
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SAMS S.A.
Arenida Republica de Panama 3534
San Isidro, **LIMA**
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PHILIPPINES

The Online Advanced Systems Corp.
2nd Floor, Electra House
115-117 Esteban Street
P.O. Box 1510
Legaspi Village, Makati
Metro **MANILA**
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Telex: 63274 ONLINE PN
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PORTUGAL

Mundinter Intercambio
Mundial de Comércio S.A.R.L.
Av. Antonio Augusto Aguiar 138
Apartado 2761
LISBON
Tel: (19) 53-21-31, 53-21-37
Telex: 16691 munter p
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Soquimica
Av. da Liberdade, 220-2
1298 **LISBOA** Codex
Tel: 56-21-82
Telex: 13316 SABASA
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Telectra-Empresa Técnica de Equipmentos Eléctricos S.A.R.L.
Rua Rodrigo da Fonseca 103
P.O. Box 2531
LISBON 1
Tel: (19) 68-60-72
Telex: 12598
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C.P.C.S.I.
Rua de Costa Cabral 575
4200 **PORTO**
Tel: 499174/495173
Telex: 26054
C,P

PUERTO RICO

Hewlett-Packard Puerto Rico
101 Muñoz Rivera Av
Esu. Calle Ochoa
HATO REY, Puerto Rico 00918
Tel: (809) 754-7800
A,C,CM,M,E,P

QATAR

Computer Arabia
P.O. Box 2750
DOHA
Tel: 428555
Telex: 4806 CHPARB
P

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P.O.Box 1563
DOHA
Tel: 422170
Telex: 4439 NASSER DH
M

SAUDI ARABIA

Modern Electronics Establishment
Hewlett-Packard Division
P.O. Box 281
Thuobah
AL-KHOBAR 31952
Tel: 895-1760, 895-1764
Telex: 671 106 HPMEEK SJ
Cable: ELECTA AL-KHOBAR
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Modern Electronics Establishment
Hewlett-Packard Division
P.O. Box 1228
Redec Plaza, 6th Floor
JEDDAH
Tel: 644 96 28
Telex: 4027 12 FARNAS SJ
Cable: ELECTA JEDDAH
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Modern Electronics Establishment
Hewlett-Packard Division
P.O.Box 22015
RIYADH 11495
Tel: 491-97 15, 491-63 87
Telex: 202049 MEERYD SJ
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Abdul Ghani El Ajou Corp.
P.O. Box 78
RIYADH
Tel: 40 41 717
Telex: 200 932 EL AJOU
P

SCOTLAND
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SENEGAL

Societe Hussein Ayad & Cie.
76, Avenue Georges Pompidou
B.P. 305
DAKAR
Tel: 32339
Cable: AYAD-Dakar
E

Moneger Distribution S.A.
1, Rue Parent
B.P. 148
DAKAR
Tel: 215 671
Telex: 587
P

Systeme Service Conseil (SSC)
14, Avenue du Parachois
DAKAR ETOILE
Tel: 219976
Telex: 577
C,P

SINGAPORE

Hewlett-Packard Singapore (Sales) Pte. Ltd.
1150 Depot Road
SINGAPORE, 0410
Tel: 4731788
Telex: 34209 HPSGSO RS
Cable: HEWPACK, Singapore
A,C,E,M,P

Dynamar International Ltd.
Unit 05-11 Block 6
Kolam Ayer Industrial Estate
SINGAPORE 1334
Tel: 747-6188
Telex: 26283 RS
CM

SOUTH AFRICA

Hewlett-Packard So Africa (Pty.) Ltd.
P.O. Box 120
Howard Place, **CAPE PROVINCE**
7450 South Africa
Tel: 27 121153-7954
Telex: 57-20006
A,C,CM,E,M,P

Hewlett-Packard So Africa (Pty.) Ltd.
2nd Floor Juniper House
92 Overport Drive
DURBAN 4067
Tel: 27-31-28-4178
Telex: 6-22954
C

Hewlett-Packard So Africa (Pty.) Ltd.
Shop 6 Linton Arcade
511 Cape Road
Linton Grange
PORT ELIZABETH 6001
Tel: 27141130 1201
Telex: 24-2916
C

Hewlett-Packard So Africa (Pty.) Ltd.
Fountain Center
Kalkoen Str.
Monument Park Ext 2
PRETORIA 0105
Tel: (012) 45 5725
Telex: 32163
C,E

Hewlett-Packard So Africa (Pty.) Ltd.
Private Bag Wendywood
SANDTON 2144
Tel: 27-11-802-5111, 27-11-802-5125
Telex: 4-20877 SA
Cable: HEWPACK Johannesburg
A,C,CM,E,M,P

SPAIN

Hewlett-Packard Española, S.A.
Calle Entenza, 321
E-BARCELONA 29
Tel: 3/322 24 51, 321 73 54
Telex: 52603 hpbee
A,C,E,M,P

Hewlett-Packard Española, S.A.
Calle San Vicente S/N
Edificio Albia II-7B
48001 **BILBAO**
Tel: 4/423 83 06
A,C,E,M

Hewlett-Packard Española, S.A.
Crta. N-VI, Km. 16, 400
Las Rozas
E-MADRID
Tel: (1) 637.00.11
Telex: 23515 HPE
C,M

Hewlett-Packard Española, S.A.
Avda. S. Francisco Javier, S/N
Planta 10. Edificio Sevilla 2
E-SEVILLA 5, SPAIN
Tel: 54/64 44 54
Telex: 72933
A,C,M,P

Hewlett-Packard Española, S.A.
Isabel La Catolica, 8
E-46004 VALENCIA
Tel: 34-6-361 1354
Telex: 63435
C,P

Hewlett-Packard Española, S.A.
Av. de Zugazarte, 8
Las Arenas-Guecho
E-48930 VIZCAYA
VIZCAYA
Tel: 34-423-83 06
Telex: 33032

SWEDEN

Hewlett-Packard Sverige AB
Östra Tullgatan 3
S-20011 **MALMÖ**
Box 6132
Tel: 46-40-702-70
Telex: (854) 17886 (via Spånga office)
C,P

Hewlett-Packard Sverige AB
Elementvagen 16
S-7022 7 **ÖREBRO**
Tel: 49-019-10-4820
Telex: (854) 17886 (via Spånga office)
C

Hewlett-Packard Sverige AB
Skalholtsgatan 9, Kista
P.O. Box 19
S-16393 **SPÅNGA**
Tel: (08) 750-2000
Telex: (854) 17886
Telefax: (08) 7527781
A,C,CM,E,M,P

Hewlett-Packard Sverige AB
Box 266
Topasgatan 1A
S-42123 **VÄSTRA-FRÖLUNDA** (Gothenburg)
Tel: 46-031-89-1000
Telex: (854) 17886 (via Spånga office)
A,C,CM,E,M,P

SUDAN

Mediterranean Engineering & Trading Co. Ltd.
P.O. Box 1025
KHARTOUM
Tel: 41184
Telex: 24052
C,P

SWITZERLAND

Hewlett-Packard (Schweiz) AG
Clarastrasse 12
CH-4058 **BASEL**
Tel: 41-61-33-5920
A,C,E,P

Hewlett-Packard (Schweiz) AG
7, rue du Bois-du-Lan
Case postale 365-1366
CH-1217 **MEYRIN** 1
Tel: (0041) 22-83-11-11
Telex:27333 HPAG CH
A,C,CM,E,M,P

SWITZERLAND (Cont'd)

Hewlett-Packard (Schweiz) AG
Allmend 2
CH-8967 **WIDEN**
Tel: 41-57-31-2111
Telex: 53933 hpag ch
Cable: HPAG CH
A,C,CM,E,M,P

Hewlett-Packard (Schweiz) AG
Schwamendingenstrasse 10
CH-8050 **ZURICH**
Tel: 41-1-315-8181
Telex: 823 537 HPAG CH
C,P

SYRIA

General Electronic Inc.
Nuri Basha Ahnaf Ebn Kays Street
P.O. Box 5781
DAMASCUS
Tel: 33-24-87
Telex: 44-19-88
Cable: ELECTROBOR DAMASCUS
E

Middle East Electronics
P.O.Box 2308
Abu Rumaneh
DAMASCUS
Tel: 33 45 92
Telex: 411 771 Meesy
M

TAIWAN

Hewlett-Packard Taiwan Ltd.
THM Office
2, Huan Nan Road
CHUNG LI, Taoyuan
Tel: (034) 929-666
C

Hewlett-Packard Taiwan Ltd.
Kaohsiung Office
11/F, 456, Chung Hsiao 1st Road
KAOHSIUNG
Tel: (07) 2412318
C,E

Hewlett-Packard Taiwan Ltd.
8th Floor, Hewlett-Packard Building
337 Fu Hsing North Road
TAIPEI
Tel: (02) 712-0404
Telex: 24439 HEWPACK
Cable:HEWPACK Taipei
A,C,CM,E,M,P

Ing Lih Trading Co.
3rd Floor, No. 7, Sect. 2
Jen Ai Road
TAIPEI 100
Tel: (02) 394-8191
Telex: 22894 SANKWANG
A

THAILAND

Unimesa Co. Ltd.
30 Patpong Ave., Suriwong
BANGKOK 5,
Tel: 235-5727, 234-0991/3
Telex: 84439 Simonco TH
Cable: UNIMESA Bangkok
A,C,E,M

Bangkok Business Equipment Ltd.
5/3-6 Dejo Road
BANGKOK
Tel: 234-8670, 234-8671
Telex: 87699-BEQUIPT TH
Cable: BUSIQUIPT Bangkok
P

TOGO

Societe Africaine De Promotion
Immeuble Sageb
Rue d'Atakpame
P.O. Box 4150
LOME
Tel: 21-62-88
Telex: 5357
P

TRINIDAD & TOBAGO

Caribbean Telecoms Ltd.
Corner McAllister Street &
Eastern Main Road, Laventille
P.O. Box 732
PORT-OF-SPAIN
Tel: 624-4213
Telex: 22561 CARTEL WG
Cable: CARTEL, PORT OF SPAIN
CM,E;M,P

Computer and Controls Ltd.
P.O. Box 51
1 Taylor Street
PORT-OF-SPAIN
Tel: (809) 622-7719/622-7985
Telex: 38722798 COMCON WG
LOOGO AGENCY 1264
A,P

Feral Assoc.
8 Fitzgerald Lane
PORT-OF-SPAIN
Tel: 62-36864, 62-39255
Telex: 22432 FERALCO
Cable: FERALCO
M

TUNISIA

Tunisie Electronique S.A.R.L.
31 Avenue de la Liberte
TUNIS
Tel: 280-144
C,E,P

Tunisie Electronique S.A.R.L.
94, Av. Jugurtha, Mutuelleville
1002 **TUNIS-BELVEDERE**
Tel: 280144
Telex: 13238
C,E,P

Corema S.A.
1 ter. Av. de Carthage
TUNIS
Tel: 253-821
Telex: 12319 CABAM TN
M

TURKEY

E.M.A
Mediha Eldem Sokak No. 41/6
Yenisehir
ANKARA
Tel: 319175
Telex: 42321 KTX TR
Cable: EMATRADE ANKARA
M

Teknim Company Ltd.
Iran Caddesi No. 7
Karaklidere
ANKARA
Tel: 275800
Telex: 42155 TKNM TR
C,E

Kurt & Kurt A.S.
Mithatpasa Caddesi No. 75
Kat 4 Kizilay
ANKARA
Tel: 318875/6/7/8
Telex: 42490 MESR TR
A

Saniva Bilgisayar Sistemleri A.S.
Buyukdere Caddesi 103/6
Gayrettepe
ISTANBUL
Tel: 1673180
Telex: 26345 SANI TR
C,P

Best Inc.
Esentepe, Gazeteciler Sitesi
Keskin Kalem
Sokak 6/3, Gayrettepe
ISTANBUL
Tel: 172 1328, 173 3344
Telex: 42490
A

UNITED ARAB EMIRATES

Emitac Ltd.
P.O. Box 1641
SHARJAH
Tel: 591181
Telex: 68136 EMITAC EM
Cable: EMITAC SHARJAH
E,C,M,P,A

Emitac Ltd.
P.O. Box 2711
ABU DHABI
Tel: 820419-20
Cable: EMITACH ABUDHABI

Emitac Ltd.
P.O. Box 8391
DUBAI,
Tel: 377591

Emitac Ltd.
P.O. Box 473
RAS AL KHAIMAH
Tel: 28133, 21270

UNITED KINGDOM
ENGLAND

Hewlett-Packard Ltd.
Miller House
The Ring, **BRACKNELL**
Berks RG12 1XN
Tel: 44/344/424-898
Telex: 848733
E

Hewlett-Packard Ltd.
Elstree House, Elstree Way
BOREHAMWOOD, Herts WD6 1SG
Tel: 01 207 5000
Telex: 8952716
C,E

Hewlett-Packard Ltd.
Oakfield House, Oakfield Grove
Clifton **BRISTOL**, Avon BS8 2BN
Tel: 44-272-736 806
Telex: 444302
C,E,P

Hewlett-Packard Ltd.
9 Bridewell Place
LONDON EC4V 6BS
Tel: 44-01-583-6565
Telex: 298163
C,P

Hewlett-Packard Ltd.
Pontefract Road
NORMANTON, West Yorkshire WF6 1RN
Tel: 44/924/895 566
Telex: 557355
C,P

Hewlett-Packard Ltd.
The Quadrangle
106-118 Station Road
REDHILL, Surrey RH1 1PS
Tel: 44-737-686-55
Telex: 947234
C,E,P

Hewlett-Packard Ltd.
Avon House
435 Stratford Road
Shirley, **SOLIHULL**, West Midlands
B90 4BL
Tel: 44-21-745-8800
Telex: 339105
C,E,P

Hewlett-Packard Ltd.
Heathside Park Road
Cheadle Heath, Stockport
SK3 ORB, United Kingdom
Tel: 44-061-428-0828
Telex: 668068
A,C,E,M,P

Hewlett-Packard Ltd.
Harmon House
No. 1 George Street
UXBRIDGE, Middlesex UX8 1YH
Tel: 895 720 20
Telex: 893134/5
C,CM,E,M,P

Hewlett-Packard Ltd.
King Street Lane
Winnersh, **WOKINGHAM**
Berkshire RG11 5AR
Tel: 44/734/784774
Telex: 8471789
A,C,E,M,P

NORTHERN IRELAND

Hewlett-Packard (Ireland) Ltd.
Carrickfergus Industrial Centre
75 Belfast Road, Carrickfergus
CO. ANTRIM BT38 8PM
Tel: 09603 67333
C,E

Cardiac Services Company
95A Finaghy Road South
BELFAST, BT10 OBY
Tel: 0232-625566
Telex: 747626
M

SCOTLAND

Hewlett-Packard Ltd.
1/3 Springburn Place
College Milton North
EAST KILBRIDE, G74 5NU
Tel: 041-332-6232
Telex: 779615
C,E

Hewlett-Packard Ltd.
SOUTH QUEENSFERRY
West Lothian, EH30 9TG
Tel: 031 331 1188
Telex: 72682 HPSQFYG
C,CM,E,M,P

UNITED STATES

Hewlett-Packard Co.
Customer Information Center
Tel: (800) 752-0900
Hours: 6:00 AM to 5:00 PM
Pacific Time

Alabama

Hewlett-Packard Co.
2100 Riverchase Center
Building 100 - Suite 118
BIRMINGHAM, AL 35244
Tel: (205) 988-0547
A,C,M,P*

Hewlett-Packard Co.
420 Wynn Drive
HUNTSVILLE, AL 35805
Tel: (205) 830-2000
C,CM,E,M*

Alaska

Hewlett-Packard Co.
4000 Old Seward Highway
Suite 101
ANCHORAGE, AK 99503
Tel: (907) 563-8855
C,E

Arizona

Hewlett-Packard Co.
8080 Pointe Parkway West
PHOENIX, AZ 85044
Tel: (602) 273-8000
A,C,CM,E,M,P

Hewlett-Packard Co.
3400 East Britannia Dr.
Bldg. C, Suite 124
TUCSON, AZ 85706
Tel: (602) 573-7400
C,E,M**

California

Hewlett-Packard Co.
99 South Hill Dr.
BRISBANE, CA 94005
Tel: (415) 330-2500
C

Hewlett-Packard Co.
1907 North Gateway Blvd.
FRESNO, CA 93727
Tel: (209) 252-9652
C,M

Hewlett-Packard Co.
1421 S. Manhattan Av.
FULLERTON, CA 92631
Tel: (714) 999-6700
C,CM,E,M

Hewlett-Packard Co.
7408 Hollister Ave. #A
GOLETA, CA 93117
Tel: (805) 685-6100
C,E

Hewlett-Packard Co.
2525 Grand Avenue
LONG BEACH, CA 90815
Tel: (213) 498-1111
C

Hewlett-Packard Co.
5651 West Manchester Ave.
LOS ANGELES, CA 90045
Tel: (213) 337-8000

Hewlett-Packard Co.
3155 Porter Drive
PALO ALTO, CA 94304
Tel: (415) 857-8000
C,E

Hewlett-Packard Co.
5725 W. Las Positas Blvd.
PLEASANTON, CA 94566
Tel: (415) 460-0282
C

Hewlett-Packard Co.
4244 So. Market Court, Suite A
SACRAMENTO, CA 95834
Tel: (916) 929-7222
A*,C,E,M

Hewlett-Packard Co.
9606 Aero Drive
SAN DIEGO, CA 92123
Tel: (619) 279-3200
C,CM,E,M

Hewlett-Packard Co.
3003 Scott Boulevard
SANTA CLARA, CA 95054
Tel: (408) 988-7000
Telex: 910-338-0586
A,C,CM,E

Hewlett-Packard Co.
2150 W. Hillcrest Dr.
THOUSAND OAKS, CA 91320
(805) 373-7000
C,CM,E

Colorado

Hewlett-Packard Co.
2945 Center Green Court South
Suite A
BOULDER, CO 80301
Tel: (303) 499-6655
A,C,E

Hewlett-Packard Co.
24 Inverness Place, East
ENGLEWOOD, CO 80112
Tel: (303) 649-5000
A,C,CM,E,M

Connecticut

Hewlett-Packard Co.
500 Sylvan Av.
BRIDGEPORT, CT 06606
Tel: (203) 371-6454
C,E

Hewlett-Packard Co.
47 Barnes Industrial Road South
WALLINGFORD, CT 06492
Tel: (203) 265-7801
A,C,CM,E,M

Florida

Hewlett-Packard Co.
2901 N.W. 62nd Street
FORT LAUDERDALE, FL 33309
Tel: (305) 973-2600
C,E,M,P*

Hewlett-Packard Co.
6800 South Point Parkway
Suite 301
JACKSONVILLE, FL 32216
Tel: (904) 636-9955
C*,M**

Hewlett-Packard Co.
255 East Drive, Suite B
MELBOURNE, FL 32901
Tel: (305) 729-0704
CM,E

Hewlett-Packard Co.
6177 Lake Ellenor Drive
ORLANDO, FL 32809
Tel: (305) 859-2900
A,C,CM,E,P*

Hewlett-Packard Co.
4700 Bayou Blvd.
Building 5
PENSACOLA, FL 32503
Tel: (904) 476-8422
A,C,M

Hewlett-Packard Co.
5550 W. Idlewild, #150
TAMPA, FL 33614
Tel: (813) 884-3282
C,E,M,P

Georgia

Hewlett-Packard Co.
2015 South Park Place
ATLANTA, GA 30339
Tel: (404) 955-1500
Telex: 810-766-4890
A,C,CM,E,M,P*

Hewlett-Packard Co.
3607 Parkway Lane
Suite 300
NORCROSS, GA 30092
Tel: (404) 448-1894
C,E,P

Hawaii

Hewlett-Packard Co.
Pacific Tower
1001 Bishop St.
Suite 2400
HONOLULU, HI 96813
Tel: (808) 526-1555
A,C,E,M

Idaho

Hewlett-Packard Co.
11309 Chinden Blvd.
BOISE, ID 83714
Tel: (208) 323-2700
C

Illinois

Hewlett-Packard Co.
2205 E. Empire St.
P.O. Box 1607
BLOOMINGTON, IL 61702-1607
Tel: (309) 662-9411
A,C,E,M**

Hewlett-Packard Co.
525 W. Monroe, #1308
CHICAGO, IL 60606
Tel: (312) 930-0010
C

Hewlett-Packard Co.
1200 East Diehl Road
NAPERVILLE, IL 60566
Tel: (312) 357-8800
C

Hewlett-Packard Co.
5201 Tollview Drive
ROLLING MEADOWS, IL 60008
Tel: (312) 255-9800
Telex: 910-687-1066
A,C,CM,E,M

Indiana

Hewlett-Packard Co.
11911 N. Meridian St.
CARMEL, IN 46032
Tel: (317) 844-4100
A,C,CM,E,M

Hewlett-Packard Co.
111 E. Ludwig Road
Suite 108
FT. WAYNE, IN 46825
Tel: (219) 482-4283
C,E

Iowa

Hewlett-Packard Co.
4070 22nd Av. SW
CEDAR RAPIDS, IA 52404
Tel: (319) 390-4250
C,E,M

Hewlett-Packard Co.
4201 Corporate Dr.
WEST DES MOINES, IA 50265
Tel: (515) 224-1435
A**,C,M**

Kansas

Hewlett-Packard Co.
North Rock Business Park
3450 N. Rock Rd.
Suite 300
WICHITA, KS 67226
Tel: (316) 684-8491
C,E

Kentucky

Hewlett-Packard Co.
305 N. Hurstbourne Lane,
Suite 100
LOUISVILLE, KY 40223
Tel: (502) 426-0100
A,C,M

Louisiana

Hewlett-Packard Co.
160 James Drive East
ST. ROSE, LA 70087
P.O. Box 1449
KENNER, LA 70063
Tel: (504) 467-4100
A,C,E,M,P

Maryland

Hewlett-Packard Co.
3701 Koppers Street
BALTIMORE, MD 21227
Tel: (301) 644-5800
Telex: 710-862-1943
A,C,CM,E,M

Hewlett-Packard Co.
2 Choke Cherry Road
ROCKVILLE, MD 20850
Tel: (301) 948-6370
A,C,CM,E,M

Massachusetts

Hewlett-Packard Co.
1775 Minuteman Road
ANDOVER, MA 01810
Tel: (617) 682-1500
A,C,CM,E,M,P*

Hewlett-Packard Co.
29 Burlington Mall Rd
BURLINGTON, MA 01803-4514
Tel: (617) 270-7000
C,E

Michigan

Hewlett-Packard Co.
4326 Cascade Road S.E.
GRAND RAPIDS, MI 49506
Tel: (616) 957-1970
C,M

Hewlett-Packard Co.
39550 Orchard Hill Place Drive
NOVI, MI 48050
Tel: (313) 349-9200
A,C,E,M

Hewlett-Packard Co.
560 Kirts Rd.
Suite 101
TROY, MI 48084
Tel: (313) 362-5180
C

Minnesota

Hewlett-Packard Co.
2025 W. Larpenteur Ave.
ST. PAUL, MN 55113
Tel: (612) 644-1100
A,C,CM,E,M

Missouri

Hewlett-Packard Co.
1001 E. 101st Terrace Suite 120
KANSAS CITY, MO 64131-3368
Tel: (816) 941-0411
A,C,CM,E,M

Hewlett-Packard Co.
13001 Hollenberg Drive
BRIDGETON, MO 63044
Tel: (314) 344-5100
A,C,E,M

Nebraska

Hewlett-Packard
11626 Nicholas St.
OMAHA, NE 68154
Tel: (402) 493-0300
C,E,M

New Jersey

Hewlett-Packard Co.
120 W. Century Road
PARAMUS, NJ 07652
Tel: (201) 265-5000
A,C,CM,E,M

Hewlett-Packard Co.
20 New England Av. West
PISCATAWAY, NJ 08854
Tel: (201) 562-6100
A,C,CM,E

New Mexico

Hewlett-Packard Co.
7801 Jefferson N.E.
ALBUQUERQUE, NM 87109
Tel: (505) 823-6100
C,E,M

Hewlett-Packard Co.
1362-C Trinity Dr.
LOS ALAMOS, NM 87544
Tel: (505) 662-6700
C,E

New York

Hewlett-Packard Co.
5 Computer Drive South
ALBANY, NY 12205
Tel: (518) 458-1550
A,C,E,M

Hewlett-Packard Co.
9600 Main Street
CLARENCE, NY 14031
Tel: (716) 759-8621
C,E,M

Hewlett-Packard Co.
200 Cross Keys Office Park
FAIRPORT, NY 14450
Tel: (716) 223-9950
A,C,CM,E,M

Hewlett-Packard Co.
7641 Henry Clay Blvd.
LIVERPOOL, NY 13088
Tel: (315) 451-1820
A,C,CM,E,M

Hewlett-Packard Co.
No. 1 Pennsylvania Plaza
55th Floor
34th Street & 7th Avenue
MANHATTAN NY 10119
Tel: (212) 971-0800
C,M*

Hewlett-Packard Co.
15 Myers Corner Rd.
Hollowbrook Park, Suite 2D
WAPPINGERS FALLS, NY 12590
Tel: (914) 298-9125
CM,E

Hewlett-Packard Co.
2975 Westchester Ave
PURCHASE, NY 10577
Tel: (914) 935-6300
C,CM,E

Hewlett-Packard Co.
3 Crossways Park West
WOODBURY, NY 11797
Tel: (516) 682-7800
A,C,CM,E,M

North Carolina

Hewlett-Packard Co.
305 Gregson Dr.
CARY, NC 27511
Tel: (919) 467-6600
C,CM,E,M,P*

Hewlett-Packard Co.
9401 Arrow Point Blvd
Suite 100
CHARLOTTE, NC 28217
Tel: (704) 527-8780
C*

Hewlett-Packard Co.
5605 Roanne Way
GREENSBORO, NC 27420
Tel: (919) 852-1800
A,C,CM,E,M,P*

Ohio

Hewlett-Packard Co.
2717 S. Arlington Road
AKRON, OH 44312
Tel: (216) 644-2270
C,E

Hewlett-Packard Co.
4501 Erskine Road
CINCINNATI, OH 45242
Tel: (513) 891-9870
C,M

Hewlett-Packard Co.
15885 Sprague Road
CLEVELAND, OH 44136
Tel: (216) 243-7300
A,C,CM,E,M

Hewlett-Packard Co.
9080 Springboro Pike
MIAMISBURG, OH 45342
Tel: (513) 433-2223
A,C,CM,E*,M

Hewlett-Packard Co.
One Maritime Plaza, 5th Floor
720 Water Street
TOLEDO, OH 43604
Tel: (419) 242-2200
C

Hewlett-Packard Co.
675 Brooksedge Blvd.
WESTERVILLE, OH 43081
Tel: (614) 891-3344
C,CM,E*

Oklahoma

Hewlett-Packard Co.
3525 N.W. 56th St.
Suite C-100
OKLAHOMA CITY, OK 73112
Tel: (405) 946-9499
C,E*,M

SALES & SUPPORT OFFICES
Arranged alphabetically by country

UNITED STATES (Cont'd)

Hewlett-Packard Co.
6655 South Lewis,
Suite 105
TULSA, OK 74136
Tel: (918) 481-6700
A**,C,E,M*,P*

Oregon

Hewlett-Packard Co.
9255 S. W. Pioneer Court
WILSONVILLE, OR 97070
Tel: (503) 682-8000
A,C,E*,M

Pennsylvania

Hewlett-Packard Co.
Heatherwood Industrial Park
50 Dorchester Rd.
Route 22
HARRISBURG, PA 17112-2799
Tel: (717) 657-5900
C

Hewlett-Packard Co.
111 Zeta Drive
PITTSBURGH, PA 15238
Tel: (412) 782-0400
A,C,E,M

Hewlett-Packard Co.
2750 Monroe Boulevard
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