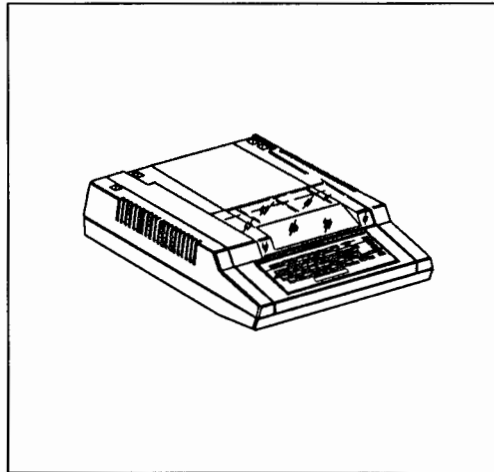

HP 3396 Series II Integrator Using Application Programs



Manual Part No.
03396-90305

Edition 1, June 1990
Printed in U.S.A.

Printing History

The information contained in this document may be revised without notice.

Hewlett-Packard makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Hewlett-Packard shall not be liable for errors contained herein or for incidental, or consequential damages in connection with the furnishing, performance, or use of this material.

No part of this document may be photocopied or reproduced, or translated to another program language without the prior written consent of Hewlett-Packard Company.

First Edition - June 1990

Printed In U.S.A.

© Copyright 1990 by Hewlett-Packard Company
All Rights Reserved

HP Computer Museum

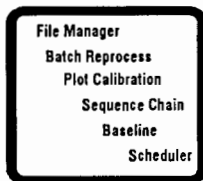
www.hpmuseum.net

For research and education purposes only.

Contents

Chapter 1:

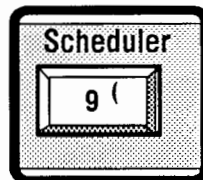
The HP 3396 SERIES II Application Programs



This chapter introduces the application programs and how to run them.

Chapter 2:

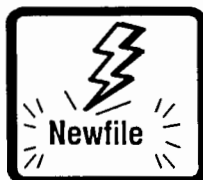
Scheduling a Postrun Program



Chapter 2 shows you how to schedule postrun programs with the Autoscheduler program.

Chapter 3:

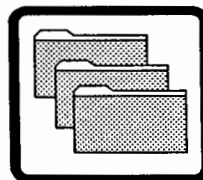
Renaming Files Automatically



In Chapter 3, you will learn how to set up and run the Autaname program. It automatically renames the result files in several different formats.

Chapter 4:

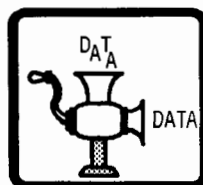
Managing Files



Chapter 4, Managing Files, contains the syntax and examples for commands that let you copy, delete, list, and rename files. Other commands include listing a directory and formatting a disk.

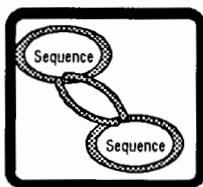
Chapter 5:

Batch Reprocessing Data Files



With this program you can reprocess a batch of existing data files using new method or sequence parameters.

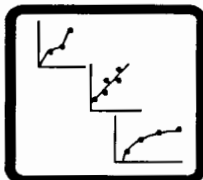
Chapter 6:



Chaining Sequences

Chapter 6 shows that you can also automate runs by chaining together sequences. You can assign a different method to each sequence in the chain.

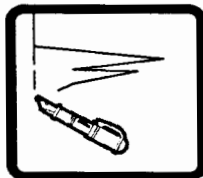
Chapter 7:



Plotting a Calibration Curve

You can plot the response curve of a calibrated peak from a method or its calibration file. This chapter shows you how.

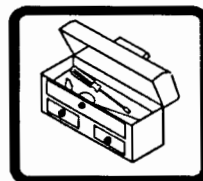
Chapter 8:



Plotting a Baseline

This chapter shows you how to run the Baseline program. You can run it interactively or schedule it as a postrun program. When this program runs, the chromatogram is replotted and its baseline is drawn.

Appendix :



Error Messages and Recovery Procedures

The Appendix lists error messages for the application programs, and suggests possible causes and corrective user actions. It also contains error recovery procedures for autosequenced runs or sequences that have failed.

Introducing the Application Programs

File Manager

Batch Reprocess

Plot Calibration

Sequence Chain

Baseline

Scheduler

In this chapter....

- What Are Application Programs? 1-2
- Key Assignments for the Application Programs 1-3
- An Overview of the Application Programs 1-5

What Are Application Programs?

Your integrator contains a set of programs, called application programs, that extend your integrator's capabilities. Because they are permanently installed in an EPROM, you don't have to load an application program to run the integrator. In fact, you can run most of the programs simply by pressing the program's assigned function key.

Your HP 3396 Series II Integrator contains some combination of the following application programs:

Program	Application
Auto Start	Start autoscheduled runs or sequences
Autoscheduler	Schedule postrun programs
Autoname	Rename files automatically
File Manager	Copy, List, etc.
Batch Reprocess	Reprocess data files
Bar Coded Methods	Automate runs with bar coded vials
Sequence Chaining	Automate analyses
Plot Calibration Curve	Check validity of multilevel calibrations
Plot Baseline	Check the baseline allocation

Exactly which application programs are included with your integrator depends on the integrator options. For example HP 5890 dual channel operation and HP 1050 LC control options are supplied with different application programs.

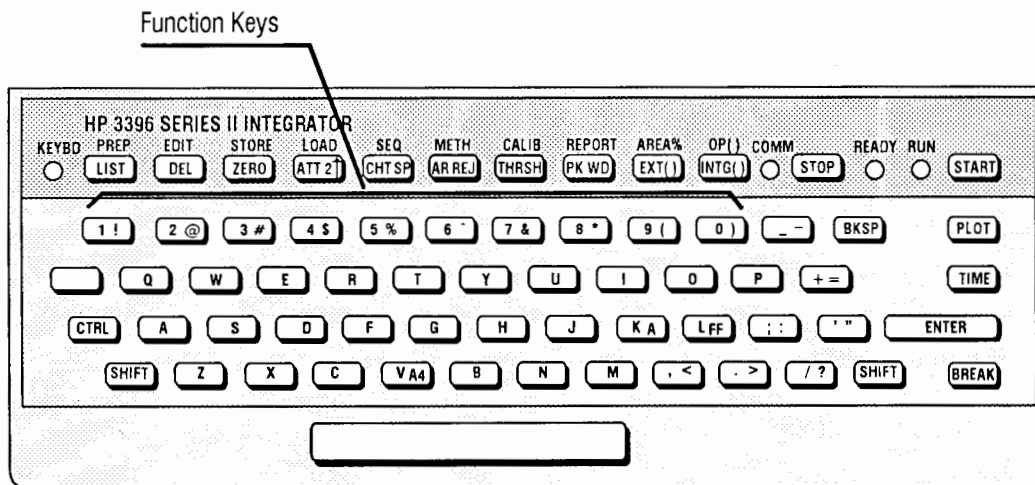
See the appropriate operating manuals for more information about these programs.

HP 5890 dual channel operation	HP p/n G1208-90100
--------------------------------	--------------------

HP 1050 LC control	HP p/n G1209-90100
--------------------	--------------------

Key Assignments for the Application Programs

The function keys are labeled 1 through 9, and 0. When you switch on the integrator, application programs are assigned to the function keys.



The function key assignments are determined by which application programs are installed.

- General Application Programs

Standard HP 3396 Series II Integrator

- HP 5890A dual channel

Available when either Option 201 or accessory HP G1208A is installed.

- HP 1050 LC control

Available when either Option 202 or accessory HP G1209A is installed.

The key assignments for each of these configurations appear on the following page.

General Application Programs

When your integrator has no options, the following general application programs are assigned to the function keys:

File Mgr.	Batch Rproc.	Plot Galib.			Seq Chain		Baseline	Scheduler	AutoStart
1	2	3	4	5	6	7	8	9	0
Series II General Application Programs								HP P/N 03396-90745	

HP 5890A Dual Channel (Option 201/Accessory HP G1208A)

When your integrator has the HP 5890 dual channel option, the following application programs are assigned to the function keys:

File Mgr.	Batch Rproc.	Plot Galib.		Barcode	Seq Chain		Baseline	Scheduler	AutoStart
1	2	3	4	5	6	7	8	9	0
Series II Application Programs / HP 5890 Dual Channel								HP P/N 03396-90735	

HP 1050 LC Control (Option 202/Accessory HP G1209A)

When your integrator has the LC control option, the following application programs are assigned to the function keys:

	Batch Rproc.	Plot Galib.		Start LC			Baseline	Scheduler	
1	2	3	4	5	6	7	8	9	0
Series II Application Programs / HP 1050 LC Control								HP P/N 03396-90755	

An Overview of the Application Programs

What follows is a short description of each application program.

The Autoscheduler

The Autoscheduler is used to specify an individual program or program chains to execute as postrun programs. It also provides the user interface for the autonaming and dual channel programs.

Auto Start

Use the **Auto Start** key to start an autoscheduled run or sequence.

Pressing the **Auto Start** key starts a program called `AUTO_TOP`. It performs a number of prerun tests to check `INET` status, program space, etc, to ensure that the postrun programs will execute.

Autoname (Automatic File Naming)

The Autoname program has no function key assignment. It can be scheduled to run as a postrun program using the Autoscheduler or as a BASIC Autocall program. It automatically renames the signal data file(s), processed peak file(s), and the report file(s).

File Manager

The File Manager program expands the file management capabilities of the HP 3396 Integrator. Commands include Copy, Delete, List, etc.

Batch Reprocess (Reprocessing Existing Data Files)

Through an interactive dialog, this program lets you specify a set of data files and calibration files to be reanalyzed. You may specify a method file, calibration file, or a sequence sample table to supply the sample information during reprocessing.

Bar Coded Methods

This program uses the bar code reader to automate runs using bar code labeled sample vials. This application program is only present on integrators with HP 5890 dual channel.

Sequence Chaining

Running this program starts a dialog, in which you can specify a chain of sequences and their corresponding methods, and select optional postrun programs. When you start the sequence chain, the first run of the sequence executes, followed by its postrun program (if any), followed by the next run and its postrun programs (if any), and so on until the sequence is finished.

Plot Calibration Curve

This program plots the selected peak's calibration curve based on the actual response factors and the prints the curve's correlation coefficient.

Plot Baseline

This program replots a chromatogram and draws in its baseline, using the signal file and the processed peak file from the original run. The signal and processed peak files supply the chromatographic and baseline information. The method determines the plot's appearance. You can plot baselines interactively from the keyboard or schedule baseline as a postrun program.

Running an Application Program

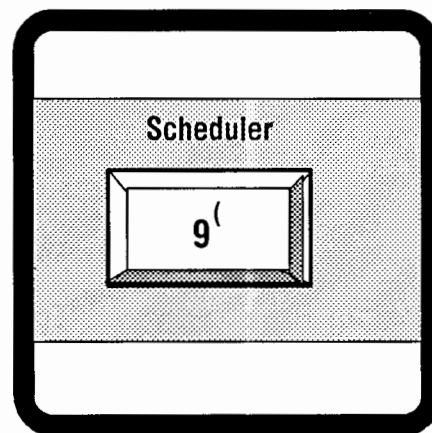
You can run most of the application programs by pressing the appropriate function key. Others must be autoscheduled as postrun programs.

HP 5890 Dual Channel and HP 1050 LC Control

HP 5890 dual channel and HP 1050 LC control are application programs available as options or accessories. See the appropriate operating manuals for more information about these programs.

HP 5890 dual channel operation	HP p/n G1208-90100
Controlling the HP 1050 LC	HP p/n G1209-90100

Scheduling Postrun Programs



In this chapter...

- Introducing the Autoscheduler 2-2
- Starting the Autoscheduler Dialog 2-3
- Creating an Autoscheduler File 2-4
- Starting the Automated Run or Sequence 2-8
- Editing an Autoscheduler File 2-11
- Creating and Storing Multiple Autoscheduler Files 2-16

Introducing the Autoscheduler

The primary function of the Autoscheduler is to schedule postrun programs that execute during the integrator's postrun phase. It also provides the user interface for the Autoname program and provides method and sequence assignments for Autoscheduler-controlled runs and sequences.

The Autoscheduler consists of three interrelated parts: the Autoscheduler dialog, the Autoscheduler file, and the Autoscheduler program.

Autoscheduler Dialog

You begin by interacting with the Autoscheduler dialog. Press function key [9], labeled **Scheduler**, and the dialog begins. The dialog prompts you to enter the names of the postrun programs you want to schedule. Your responses will be stored in the Autoscheduler file.

Autoscheduler File

When you have entered all the postrun programs, store the Autoscheduler file using the default name `M: AUTOCALL.UA1` and exit the dialog. You can store Autoscheduler files using other nondefault names; however the Autoscheduler program only operates with `M: AUTOCALL.UA1`.

Autoscheduler Program

When you start the autoscheduled run (or sequence), the Autoscheduler program executes the programs that you named in the default Autoscheduler file `M: AUTOCALL.UA1` *during the postrun portion of the run*.

If You Have Dual Channel

If your integrator has the dual channel option/accessory, it has a different, more elaborate version of the Autoscheduler. Besides scheduling postrun programs, it also manages the method, calibration, and sequence files for two channels and prints the (optional) barcode for each channel at the end of the report.

See the HP 5890 dual channel operation manual (HP p/n G1208-90100) for information about how to set up and run the second channel using the Autoscheduler.

Starting the Autoscheduler Dialog

When the integrator is first switched on, the application programs are assigned to their respective function keys. The assignment for the Autoscheduler is function key [9]. Pressing this key will start the Autoscheduler dialog.

1. Press function key [9] to start the Autoscheduler dialog.

```
WELCOME TO THE HP 3396 POSTRUN AUTOSCHEDULER (REV B.00.01)

AT ANY ':' PROMPT: 'Q'[ENTER] QUILTS
                  'S'[ENTER] STARTS OVER
IN EDIT MODE      : 'D'[ENTER] TERMINATES EDITING

*****
NOTE: Default response to any [Y/N*] : prompt is negative.
      In EDIT MODE pressing only [ENTER] maintains the existing value
      of an option. In CREATE MODE pressing only [ENTER] sets the
      option to the default value, or to a space if no default exists.
*****
```

The header information explains how to enter and exit the Autoscheduler dialog in both the create and edit modes.

Creating an Autoscheduler File

In an Autoscheduler file you can:

- Supply a data file name prefix for the Autaname program.
- Specify the method and sequence assignments for Autoscheduler-controlled runs and sequences.
- Schedule up to 20 postrun programs.

The following steps will illustrate how to create an Autoscheduler file by scheduling the Autaname program as a postrun program.

Edit an existing autocall scheduler file or create a new one [E/C*]:

1. Press [ENTER] to create a new Autoscheduler file.

Your response to the first prompt determines whether you will create a new Autoscheduler file or edit one that already exists.

The default selection is **C**, indicated by the asterisk. It is entered automatically when you press **[ENTER]**.

RENAMING DATA FILES

Data file name prefix for renaming: **TESTA**

2. Enter a prefix for Autaname result files.

This prompt is where you enter the file name prefix used by the Autaname program to rename result files. The prefix can have up to four characters plus an asterisk. Use of the asterisk is described in section 3, *Renaming Files Automatically*.

A valid prefix starts with a letter followed by any combination of letters, numbers, and the underscore character.

SPECIFYING METHOD AND SEQUENCE FILES

Method file for autoscheduled run or sequence: M:METH2.MET

3. **Enter the method file to analyze the Autoscheduler-controlled run or sequence, or press [ENTER] to specify no method assignment.**

The method specified here overrides a method specified in the sequence.

If you do not supply the .MET file extension, the program does it for you.

Note: If you press [ENTER] at the method prompt, no method is assigned and a warning message is printed.

WARNING - NO EXPLICIT METHOD SPECIFIED. THIS MAY RESULT
IN UNUSABLE SYSTEM BEHAVIOR AT EXECUTION TIME.

The analysis will be performed with the currently active method when you press **Auto Start**.

Sequence file for autoscheduled run or sequence: M:SEQ2.SEQ

4. **Enter the name of the sequence to automate runs, or press [ENTER] to specify no sequence assignment.**

A method specified in the Autoscheduler dialog overrides a method specified in the sequence file.

Note: If you press [ENTER] at the sequence prompt, no sequence is assigned and a warning message is printed.

WARNING - NO EXPLICIT SEQUENCE SPECIFIED. THIS MAY RESULT
IN UNUSABLE SYSTEM BEHAVIOR AT EXECUTION TIME.

The analysis will be performed with the currently active sequence when you press **Auto Start**.



SCHEDULING AUTOCALL PROGRAMS

Schedule postrun AUTOCALL programs [Y/N*]: Y

5. Enter Y to schedule postrun programs.

AUTOCALL filespec : E:AUTONAME.BAS
AUTOCALL filespec : [ENTER]

6. Enter the name of the program you want to run as a postrun program. When there are no more program entries, press [ENTER] to continue on to the next prompt. If you do not specify a disk, it is defaulted to E the EPROM.

If you do not supply the .MET file extension, the program does it for you.

The Autoname program is one of the application programs supplied with all HP 3396 Series II Integrators. Automatic file renaming prevents result files from being overwritten and lets you assign meaningful names to result files for future reference. See chapter 3 for more information about the Autoname program.

You can schedule up to 20 postrun programs with the Autoscheduler.

Store the current Autoscheduler file ('N' re-edits) [Y/N*] Y

7. Enter Y to store the entries you've made.

Enter Autoscheduler file name [M:AUTOCALL.UA1*]: [ENTER]

8. Press [ENTER] to store the current Autoscheduler file with its default name.

Valid file extensions are .UA1, .UA2, and .UA3. Some examples of valid Autoscheduler file names are B:AUTOCALL.UA2 and M:AUTOCALL.UA3.

- If you do not supply the .UA1 file extension, the program does it for you.
- If you do not specify a disk drive, M will automatically be assigned.
- If you do not specify a file name, M:AUTOCALL.UA1 is automatically assigned as the Autoscheduler file.

When you create an Autoscheduler file, name it according to its function. For example, name a file H2OSAMP.UA1 that analyzes water samples.

To prepare the file for an autoscheduled run or sequence, rename the file to M:AUTOCALL.UA1, and, when the runs are finished, rename the file to its original name. This renaming operation is necessary because the Autoscheduler only works with files named M:AUTOCALL.UA1.

M:AUTOCALL.UA1 - Exists, OK to overwrite [Y/N*]: Y

9. **The program prompts you with this message ONLY if an Autoscheduler file with the name you entered in step 8 already exists.**

- Enter Y to overwrite the existing file with the new information.
- Enter N to keep the existing file. The dialog reprompts you for the name to store file.

Create another Autoscheduler file [Y/N*]: [ENTER]

10. **Enter N or press [ENTER] to exit the dialog.**

If you enter Y, the create dialog will restart.

Now you are ready to start the run. See "Starting the Automated Run or Sequence" on the next page.

Writing and Scheduling User Written Programs

The last statement in a user written BASIC program *must* chain back to the Autoscheduler program (E:AUTO_SKD.BAS).

Example:

```
10      PRINT "This is an example program"
20      PRINT ""
30      FOR D=1 to 22
40          PLOT 0,1312
50      NEXT D
60      END PLOT
70      PRINT ""
80      CHAIN "E:AUTO_SKD.BAS"
```

Starting the Automated Run or Sequence

After you have prepared the Autoscheduler file, you can start the run or the sequence.

You *must* use Function Key [0] to start an autoscheduled run or sequence. If you press the **[START]** button on the integrator, GC, etc, the run will start but the postrun programs will *not* execute.

After each run, the postrun program(s) specified in the M: AUTOCALL.UA1 Autoscheduler file will execute. In this example, the postrun program is the Autaname program.

1. Press function key [0] to initiate the START dialog.

When you press key [0], labeled **Auto Start**, a program called AUTO_TOP performs a number of prerun tests that check INET status, program space, etc, to ensure that the postrun programs will execute.

```
VERIFYING FILES, BASIC WORKSPACE
SETTING SEQ/MET, BASIC WORKSPACE
AUTOSCHEDULER WORKFILE COMPATIBLE WITH SYSTEM
```

When everything checks okay, you are prompted to start the run or sequence.

```
Start a Run or Sequence or Quit [R*/S/Q]: [ENTER]
```

2. Press [ENTER] to start the run, or enter S to start a sequence.

If you need to abort the run at this point, enter **Q** to quit. Then re-edit the method, sequence, or fix whatever needs fixing. When you are ready to start, press the **Auto Start** key.

The resulting run is shown on the next page.

Example—Scheduling and Running the Autaname Program

The dialog and user responses below summarize the steps described in *Creating an Autoscheduler File*.

Edit an existing autocall scheduler file or create a new one [E/C*]: **C**

RENAMING DATA FILES

Data file name prefix for renaming: **TEST**

SPECIFYING METHOD AND SEQUENCE FILES

Method file for autoscheduled run or sequence: **M:METH2.MET**

Sequence file for autoscheduled run or sequence: **M:SEQ2.SEQ**

SCHEDULING AUTOCALL PROGRAMS

Schedule postrun AUTOCALL programs [Y/N*]: **Y**

AUTOCALL filespec : **E:AUTONAME.BAS**

AUTOCALL filespec : **[ENTER]**

Store the current Autoscheduler file ('N' re-edits) [Y/N*] **Y**

Enter autoscheduler file name [M:AUTOCALL.UA1*]: **[ENTER]**

M:AUTOCALL.UA1 - Exists, ok to overwrite [Y/N*]: **Y**

Create another Autoscheduler file [Y/N*]: **[ENTER]**

Start the autoscheduled run by pressing the Auto Start key.

* VERIFYING FILES, BASIC WORKSPACE

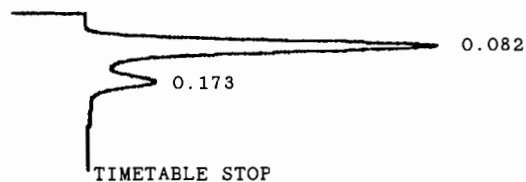
SETTING SEQ/MET, BASIC WORKSPACE

AUTOSCHEDULER WORKFILE COMPATIBLE WITH SYSTEM

Start a sequence or a run or Quit [R*/S/Q]: [ENTER]

* RUN # 1 JUN 28, 1990 13:46:51

START



TIMETABLE STOP

Closing signal file M:SIGNAL .BNC

Storing processed peaks to M:Q1EB7A13.PRO

RUN# 1 JUN 28, 1990 13:46:51

SIGNAL FILE: M:SIGNAL.BNC

PEAK FILE : M:Q1EB7A13.PRO

AREA%

RT	AREA	TYPE	WIDTH	AREA%
.082	369702	BV	.039	81.85689
.173	79010	VB	.042	18.14311

TOTAL AREA=448712

MUL FACTOR=1.0000E+00

Signal file M:SIGNAL.BNC renamed M:TESTA001.BNC

Processed peak file M:Q1EC06E9.PRO renamed M:TESTA001.PRO

===== END OF RUN =====

Editing an Autoscheduler File

In the edit mode, the dialog prints the prompt line, including the last user entry, followed by a colon edit prompt (:) on the line below.

An example of a prompt in the Autoscheduler edit mode is shown below:

```
Method file for realtime channel: M:METH2.MET
:
```

You can respond to the edit prompt in three ways:

- Press **[ENTER]** to preserve the original response.
- Type a new response and press **[ENTER]** to overwrite the original response.
- Press **[SPACE] [ENTER]** to delete the original response.

Note: The Autoscheduler file changes only when you store it. If you have partially edited an Autoscheduler file and make a mistake, you can quit or restart the editing session by typing **Q** or **S** respectively. You can enter a **D** at any time to specify that you are “done” editing the Autoscheduler file.

The following steps illustrate how to edit an existing Autoscheduler file to change the scheduled postrun programs.

```
Edit an existing autocall scheduler file or create a new one [E/C*]: E
```

1. **Enter E to edit an existing Autoscheduler file.**

```
AUTOCALL Scheduler file to edit [M:AUTOCALL.UA1*]: [ENTER]
```

2. **Press [ENTER] to edit the default Autoscheduler file, M:AUTOCALL.UA1, or enter the name of the file you want to edit.**

```
RENAMING DATA FILES
-----
```

```
Data file name prefix for renaming: TEST
: BH13
```

3. **If desired, type a new data file name prefix for renaming result files.**

SPECIFYING METHOD AND SEQUENCE FILES

Method file for autoscheduled run or sequence: M:METH2.MET
: [ENTER]

4. **Press [ENTER] to leave the method specification unchanged, or enter a new method file name.**

Sequence for autoscheduled run or sequence: M:SEQ2.SEQ
: [ENTER]

5. **Press [ENTER] to leave the sequence specification unchanged, or enter a new sequence file name.**

SCHEDULING AUTOCALL PROGRAMS

Schedule postrun AUTOCALL programs [Y/N*]: Y
:[ENTER]

6. **Enter Y to schedule postrun programs.**

AUTOCALL filespec : E:AUTONAME.BAS
: [ENTER]

7. **Press [ENTER] to leave the postrun program specification unchanged.**

AUTOCALL filespec : E:BASELINE.BAS
: E:AUTO_2CH.BAS

8. **Enter a new postrun program specification.**

If you do not specify a disk it is defaulted to E, the EPROM.

AUTOCALL filespec : E:USERPROG.BAS
: [SPACE] [ENTER]

9. **Press [SPACE] [ENTER] to delete the postrun program specification.**

When you delete a stored postrun program, all of the programs that follow it are deleted also. If you delete a postrun program from within a list, you will have to retype all of the postrun programs that were deleted along with the desired program deletion.

Store the current Autoscheduler file ('N' re-edits) [Y/N*]: Y

10. Enter Y to store the edited Autoscheduler file.

If you make a mistake when editing:

Type **Q** to quit the edit mode.

Type **S** to restart the edit mode.

Then you can then go back to editing, and the original Autoscheduler file will remain unchanged.

Enter autoscheduler file name [M:AUTOCALL.UA1*]: [ENTER]

11. Press [ENTER] to store the current Autoscheduler file with its default name, or enter a new name for the edited file.

Valid file extensions are .UA1, .UA2, and .UA3. Some examples of valid Autoscheduler file names are: B:AUTOCALL.UA2 and M:AUTOCALL.UA3.

- If you do not supply the .UA1 file extension, the program does it for you.
- If you do not specify a disk drive, M: will automatically be assigned.

When you create an Autoscheduler file, name it according to its function. For example, name a file that analyzes water samples M:H2OSAMP.UA1.

To prepare the file for an autoscheduled run or sequence, rename the file to M:AUTOCALL.UA1, and, when the runs are finished, rename the file to its original name. This renaming operation is necessary because the Autoscheduler only works with files named M:AUTOCALL.UA1.

M:AUTOCALL.UA1 - Exists, ok to overwrite [Y/N*]: Y

12. The program prompts you with this message if an Autoscheduler file with that name already exists.

- Enter Y to overwrite the existing file with the new information.
- Enter N to keep the existing file. The dialog will prompt you for the name to store file.

Scheduling Postrun Programs 2-13

```
***** TESTSPEC . E:USERPROG.BAS
: [SPACE] [ENTER]
```

Store the current Autoscheduler file ('N' re-edits) [Y/N*]: Y

Enter autoscheduler file name [M:AUTOCALL.UA1*]: [ENTER]

M:AUTOCALL.UA1 - Exists, OK to overwrite [Y/N*]: Y

Create another Autoscheduler file [Y/N*]: [ENTER]

- File name prefix TEST is replaced by BH13.
- The specified method and sequence files remain unchanged.
- Postrun programs AUTONAME and BASELINE remain unchanged while USERPROG is deleted.

Creating and Storing Multiple Autoscheduler Files

You can create several different Autoscheduler files by storing each one with a unique name. Having several Autoscheduler files on hand is useful when:

- You frequently run different sets of samples that require different postrun programs. Rather than creating a new file each time, prepare several Autoscheduler files and store them, one for each type of analysis.
- You are chaining sequences. The sequence chaining program lets you specify a unique Autoscheduler file for any sequence in the chain. To schedule postrun programs in a sequence chain, you *must* prepare the Autoscheduler files first, and then start the sequence chain program.

The following example illustrates how to create and store an Autoscheduler file for future use.

You can use this procedure to create as many Autoscheduler files as you need. Remember to assign a unique name to each file, one that clearly indicates its function.

Edit an existing autocall scheduler file or create a new one [E/C*]: C

1. **Enter E to edit the default Autoscheduler file, or [ENTER] to create a new file.**

RENAMING DATA FILES

Data file name prefix for renaming: BH13

2. **Enter the Autaname prefix.**

SPECIFYING METHOD AND SEQUENCE FILES

Method file for autoscheduled run or sequence: M:METH2.MET

Sequence for autoscheduled run or sequence: M:SEQ2.SEQ

3. **Enter the method and sequence files for the Autoscheduler-controlled run or sequence.**

SCHEDULING AUTOCALL PROGRAMS

Schedule postrun AUTOCALL programs [Y/N*]: Y

AUTOCALL filespec: E:BASELINE.BAS

AUTOCALL filespec: E:AUTONAME.BAS

AUTOCALL filespec: [ENTER]

- 4. Enter the postrun program names. You can schedule up to 20 postrun programs.**

Store the current Autoscheduler file ('N' re-edits) [Y/N*] ? Y

Enter Autoscheduler file name [M:AUTOCALL.UA1*]: M:WATRCALB.UA1

- 5. When the dialog prompts you to store the Autoscheduler file, enter a name that somehow indicates the type of analysis.**

For example:

Use M:WATRCALB.UA1 to name an Autoscheduler file used to analyze contaminated water.

Do not use the default name M:AUTOCALL.UA1.

Create another AUTOCALL scheduler file [Y/N*]: N

- 6. Press [ENTER] to select N, and exit the dialog.**

Use this procedure to create as many Autoscheduler files you need. Remember to assign a unique name that clearly indicates the analysis to each file.



Recalling a Stored Autoscheduler File

Assume that you have created and stored a number of Autoscheduler files under various names. Now, you want to recall one of them to run with a particular set of samples. You created this file several weeks ago and named it M:H2OSAMP.UA1 (for water-sample analysis).

To recall your Autoscheduler file for a run or sequence, rename it to M:AUTOCALL.UA1. The renaming operation is necessary because the Autoscheduler only works with files named M:AUTOCALL.UA1.

When the runs are finished, return the file to its original name, in this case M:H2OSAMP.UA1.

Stopping an Autoscheduled Run or Sequence

Press [STOP].

Restarting an Autoscheduled Run or Sequence

There are two ways that the run or sequence can be stopped:

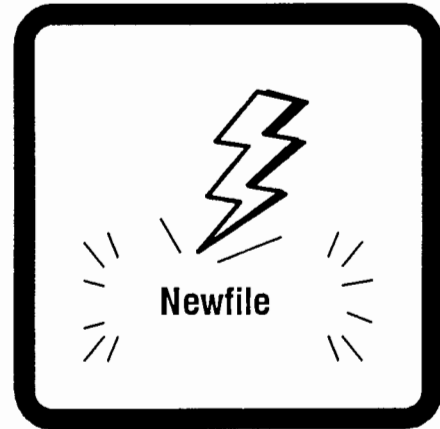
- Pressing [STOP]
- Fatal error detected by an application program.

When an autoscheduled run or sequence is stopped with the [STOP] key, simply press key [0], the **Auto Start** key, to restart the run or sequence.

When an autoscheduled run or sequence is stopped prematurely due to a fatal error, an error message is printed.

1. Follow the instructions given by the message.
2. If the message contains no instructions, look up the possible cause and user action for the error message(s) or press Key [0] to start error recovery.
3. Press Key [0] again to start another run or sequence.

Renaming Files Automatically



In this chapter....

- The Autaname Program 3-2
- Starting the Autoscheduler Dialog 3-3
- Renaming Files 3-4
- Scheduling the Autaname Program 3-10
- Starting the Run or Sequence 3-11

The Autaname Program

Autaname is an application program that automatically renames the signal data, processed peak, and report files after each run. There are two major reasons for renaming these files.

- To provide more descriptive file names for archiving.

The default names for the signal data, processed peak, and report files are `SIGNAL.RAW` (or `SIGNAL.BNC`), `Qnnnnnnnn.PRO`, and `Qnnnnnnnn.RPT`, respectively, where `nnnnnnnn` is a hexadecimal number based on the integrator calendar, time of day, and injection time. Sometimes this file name format is not descriptive enough.

- To prevent overwriting the signal data file.

The processed peak and report files are assigned unique names after each run.

Note: Without Autaname, the signal data file, named `M: SIGNAL.RAW` or `M: SIGNAL.BNC`, is overwritten after each run unless it is stored on disk.

File Renaming Formats

The Autaname program can rename result files in three different formats:

- A user-specified prefix appended with the run number:
`TEST002.BNC`, `TEST002.PRO`, `TEST002.RPT`

Where: prefix = `TEST`, and run number = `002`

- A user-specified prefix appended with the run's vial and injection numbers for the run: `TEST2002.BNC`, `TEST2002.PRO`, `TEST2002.RPT`

Where: vial number = `20`, and injection number = `02`

- The sample names from the active sample table: `SLUDGE_1.BNC`, `SLUDGE_1.PRO`, `SLUDGE_1.RPT`

Where: sample name for the run is `SLUDGE_1`.

Starting the Autoscheduler Dialog

The Autoscheduler program contains the dialog for scheduling the Autaname program as a postrun program.

When switched on, the Autoscheduler is assigned to function key [9]. Unless you've changed the key assignment, pressing this key will start the Autoscheduler dialog.

1. Press function key [9] to start the Autoscheduler dialog.

WELCOME TO THE HP 3396 POSTRUN AUTOSCHEDULER (REV A.00.04)

AT ANY ':' PROMPT: 'Q'[ENTER] QUILTS
'S'[ENTER] STARTS OVER
IN EDIT MODE : 'D'[ENTER] TERMINATES EDITING

NOTE: Default response to any [Y/N*] : prompt is negative.
In EDIT MODE pressing only [ENTER] maintains the existing value
of an option. In CREATE MODE pressing only [ENTER] sets the
option to the default value, or to a space if no default exists.

The header information explains how to enter and exit the Autoscheduler dialog in both the create and edit dialog.

Edit an existing Autoscheduler file or create a new one [E/C*]:

2. Press [ENTER] to create a new Autoscheduler file.

Your response to the first prompt determines whether you will create a new Autoscheduler file or edit one that already exists.

The default selection is **C**, indicated by the asterisk. It is entered automatically when you press [ENTER].

3. For the remaining steps, see the renaming mode you want to use :

- Renaming Files with Sample Names (page 3-4)
- Renaming Files with a Prefix and Run Number (page 3-6)
- Renaming Files with a Prefix, Vial Number, and Injection Number (page 3-8)

Renaming Files Automatically 3-3

For example, when the sample name for the run is SLUDGE_1, the signal data, processed peak, and report files will be named SLUDGE_1.BNC, SLUDGE_1.PRO, SLUDGE_1.RPT, respectively.

6. The next steps are "Scheduling the Autaname Program" and "Starting the Run or Sequence." Go to page 3-10.

Renaming Files with a Prefix and Run Number



You can set up the Autaname program to rename the signal data file, processed peak file, and report file of each run with a user-specified prefix and appended run number.

To rename the run file this way, supply a file name prefix and schedule Autaname as a postrun program.

RENAMING DATA FILES

Data file name prefix for renaming: **TEST**

3. Enter **TEST** as the prefix for the renamed files.

The prefix can be up to four characters long.

A three-digit counter corresponding to the run number is appended to this prefix to form the file names. As the counter advances with each run, unique file names are created.

SPECIFYING METHOD AND SEQUENCE FILES

Method file for autoscheduled run or sequence: **M:METH2.MET**

4. Enter the method file to analyze the Autoscheduler-controlled run or sequence, or press [ENTER] to specify no method assignment.

If automate runs with a sequence, a method specified here in the Autoscheduler dialog overrides a method specified in the sequence.

Note: If you press [ENTER] at the method prompt, no method is assigned and a warning message is printed.

WARNING - NO EXPLICIT METHOD SPECIFIED. THIS MAY RESULT
IN UNUSABLE SYSTEM BEHAVIOR AT EXECUTION TIME.

The analysis will be performed with *whatever is the currently active method*.

Sequence file for autoscheduled run or sequence: M:SEQ2.SEQ

5. **Enter the name of the sequence to automate runs, or press [ENTER] to specify no sequence assignment.**

A method specified in the Autoscheduler dialog overrides a method specified in the sequence file.

Note: If you press [ENTER] at the sequence prompt, no sequence is assigned and a warning message is printed.

WARNING - NO EXPLICIT SEQUENCE SPECIFIED. THIS MAY RESULT
IN UNUSABLE SYSTEM BEHAVIOR AT EXECUTION TIME.

The analysis will be performed with *whatever is the currently active sequence*.

How the Files Are Renamed

During a run, the data file name prefix and the last run number are used to produce the signal data file, processed peak file, and report file names for the run.

For example, when the prefix is TEST003 and run number is 003, the signal data, processed peak, and report files will be named TEST003.BNC, TEST003.PRO, TEST003.RPT, respectively.

6. **The next steps are “Scheduling the Autaname Program” and “Starting the Run or Sequence.” Go to page 3-10.**

Renaming Files with a Prefix, Vial Number, and Injection Number

When injecting sample with an HP 7673 Automatic Sampler, you can rename the signal data file, processed peak file, and report files of each run with a user-specified prefix with an appended vial number and injection number.

To rename the result files this way, you supply a modified file name prefix and schedule Autaname as a postrun program.

RENAMING DATA FILES

Data file name prefix for renaming:TEST*

3. Enter TEST* as the prefix for the renamed files.

The prefix can be up to four characters long with a trailing asterisk.

The asterisk in the file name prefix is replaced by the vial number and injection number to form the file names. As these counters advance, unique file names are created.

SPECIFYING METHOD AND SEQUENCE FILES

Method file for autoscheduled run or sequence: M:METH2.MET

4. Enter the method file to analyze the Autoscheduler-controlled run or sequence, or press [ENTER] to specify no method assignment.

If automate runs with a sequence, a method specified here in the Autoscheduler dialog overrides a method specified in the sequence.

Note: If you press [ENTER] at the method prompt, no method is assigned and a warning message is printed.

WARNING - NO EXPLICIT METHOD SPECIFIED. THIS MAY RESULT
IN UNUSABLE SYSTEM BEHAVIOR AT EXECUTION TIME.

The analysis will be performed with *whatever is the currently active method*.

Sequence file for autoscheduled run or sequence: M:SEQ2.SEQ

5. **Enter the name of the sequence to automate runs, or press [ENTER] to specify no sequence assignment.**

A method specified in the Autoscheduler dialog overrides a method specified in the sequence file.

Note: If you press [ENTER] at the sequence prompt, no sequence is assigned and a warning message is printed.

WARNING - NO EXPLICIT SEQUENCE SPECIFIED. THIS MAY RESULT
IN UNUSABLE SYSTEM BEHAVIOR AT EXECUTION TIME.

The analysis will be performed with *whatever is the currently active sequence..*

The Renamed Files

During a run, the prefix, vial number, and injection number are used to produce the signal data file, processed peak file, and report file names for the run.

For example, when the vial number is 20 and the injection number is 01, the signal data, processed peak, and report files will be named TEST2001.BNC, TEST2001.PRO, TEST2001.RPT, respectively.

6. **The next steps are “Scheduling the Autaname Program” and “Starting the Run or Sequence.” Go to page 3-10.**

Scheduling the Autaname Program

```
SCHEDULING AUTOCALL PROGRAMS
-----
AUTOCALL filespec: E:AUTONAME.BAS
AUTOCALL filespec: [ENTER]
```

1. **Enter Autaname as a postrun program then press [ENTER] to continue on to the next prompt. If you do not specify a disk, it will be defaulted to E disk, the EPROM.**

Automatic file renaming prevents result files from being overwritten and lets you assign meaningful names to result files for future reference.

You can schedule up to 20 postrun programs with the Autoscheduler.

Note: If you are also scheduling the Baseline program, Autaname must be scheduled as the first AUTOCALL filespec.

```
Store the current Autoscheduler file ('N' re-edits) [Y/N*] ? Y
```

2. **Enter Y to store the entries you've made.**

```
Enter Autoscheduler file name [M:AUTOCALL.UA1*]: [ENTER]
```

3. **Press [ENTER] to keep the current Autoscheduler file name.**

```
M:AUTOCALL.UA1 - Exists, ok to overwrite [Y/N*]: Y
```

4. **The program prompts you with this message if an Autoscheduler file with that name already exists.**

- Enter Y to overwrite the existing file with the new information.
- Enter N to keep the existing file. The dialog will prompt you for the name to store file.

```
Create another Autoscheduler file [Y/N*]: [ENTER]
```

5. **Press [ENTER] to exit the dialog.**

Now you are ready to start the run or sequence.

Starting the Run or Sequence

After you have scheduled the Autaname program, you can start the run or the sequence.

You *must* use function key [0] to start an autoscheduled run or sequence. If you press the [START] button on the integrator, GC, etc, the run will start but the postrun programs will *not* execute.

After each run, the postrun program(s) specified in the M: AUTOCALL.UA1 Autoscheduler file will execute. In this example, the postrun program is the Autaname program.

1. Press function key [0] to initiate the START dialog.

When you press key [0], labeled Auto Start, a program called AUTO_TOP performs a number of prerun tests that check INET status, program space, etc, to ensure that the postrun programs will execute.

```
*  VERIFYING FILES, BASIC WORKSPACE
SETTING SEQ/MET, BASIC WORKSPACE
AUTOSCHEDULER WORKFILE COMPATIBLE WITH SYSTEM
```

When everything checks okay, you are prompted to start the run or sequence.

```
Start a sequence or a run or quit [R*/S/Q]: [ENTER]
```

2. Press [ENTER] to start the run, or enter S to start a sequence.

If you need to abort the run at this point, enter Q to quit. When you are ready to start, press the Auto Start key.

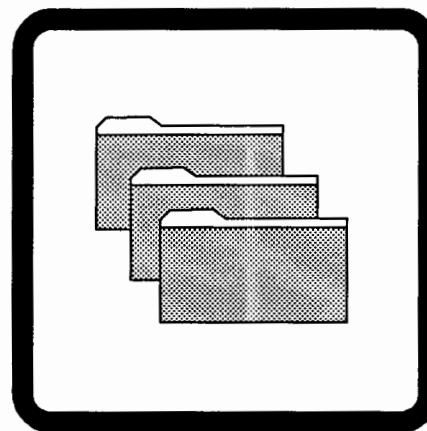
The dialog preparation and analytical run shown on the following pages illustrate renaming result files with a prefix and run number.

Renaming Files Automatically 3-11

```
Signal file M:SIGNAL.BNC renamed M:TESTA001.BNC
Processed peak file M:Q1EC06E9.PRO renamed M:TESTA001.PRO
```

```
=====
                        END OF RUN
=====
```


Managing Files



In this chapter....

- The File Manager Program 4-2
- Starting the File Manager Program 4-3
- Entering Commands 4-4
- COPY 4-6
- DELETE 4-8
- DIRECTORY 4-10
- FORMAT 4-12
- LIST 4-13
- RENAME 4-16

Entering Commands

The File Manager dialog has three modes of parameter entry:

- Syntax Mode
- Prompt Mode
- Auto Mode

Syntax Mode

In the syntax mode, you enter the entire command string, including all parameters and options, before pressing [ENTER].

```
FM> COPY M:TEST7.BNC A:T7_3_11.BNC/O
```

The examples in this section will be in syntax mode.

Prompt Mode

In the prompt mode, you enter only the command. When you press [ENTER], the File Manager program prompts you for each parameter and option for that command.

```
FM> CO
SOURCE [A:*] : ? M:
FILENAME(S) [*] : ? TEST7
EXTENSION [*] : ? BNC
DESTINATION [A:*] : ? A:
NEW FILENAME(S) [*] : ? T7_3_11
... reading source file(s)
(Press space bar to stop)

COPY M:TEST7 .BNC TO A:T7_3_11.BNC OK!

FM>
```

Auto Mode

In the auto mode, all input will be transferred from a batch file. To accomplish this, you must create a BASIC program that has the following name and syntax:

Name: M:AUTOEXEC.BAA

Commands: Must have “!” as the first character.

Print Statements: Must have “!” as the first character.

Remarks: Any lines without “!” are ignored.

Note: The batch file can contain all the commands that are valid in the syntax mode.

Example Program

```
10      ! TEST PROGRAM
20      !
30      !>DIR M:           displays M: directory
40      !                 prints a blank line
50      !OFF              turns off the auto mode
60      !                 program resumes after ON command
70      !>CO M:*. * A:F*   copy
80      !>CHAIN M:TEST.BAS optionally chain to another BASIC
                           program.
```

Changing the Default Directory

To change the default directory, type the disk designator of the desired directory.

FM> M:

FM> A:

CO{PY} {d:} {filename1.ext} {,} {e:} {filename2} {/O}

COPY copies a file from the source drive (*d:*) to a destination drive (*e:*).

d: The drive that contains the source file(s).

e: The drive to receive the destination file(s).

filename1 The source file to be copied.

, or space A separator: “,” and “ ” are both valid.

filename2 The new filename for the destination file (optional).

.ext The file type extension.

/O An option to overwrite files having the same name. The file type extension must be specified or the */O* option will not work.

When the drive is not specified, the default drive is used.

The asterisk (*) is the wildcard character. For group-selected and directory-wide COPY operations, you can substitute the asterisk for *filename1*, *filename2*, and *ext*.

Example 1

To copy all files from drive A to drive B:

FM> COPY A:*. * B: *

Example 2

To copy all processed peak files (.PRO) from the M disk to drive A:

FM> COPY M:*.PRO A: *

Example 3

To copy the signal data file (SIGNAL.BNC) from the M disk to A and rename it (RW_03_13_BNC):

FM> COPY M:SIGNAL.BNC A:RW_03_13.BNC

Example 4

To copy all of the files on the M disk that begin with TEST to drive A:

```
FM> COPY M:TEST*.PRO A:*
```

Example 5

To copy the signal file (SIGNAL.BNC) from the default disk, in this case M, to drive A and rename it (TESTRUN.BNC).

```
FM> COPY SIGNAL.BNC A:TESTRUN.BNC
WARNING: DUPLICATE FILE NAME
OVERWRITE          [Y/N*/Y!]: ? Y [ENTER]
COPY   M:SIGNAL    .BNC      TO    A:TESTRUN.BNC      OK!
FM>
```

Note: Selecting Y! will overwrite all the files specified with a wildcard without prompting for each individual file.

DE{LETE} {d:} {filename.ext} { /O}
ERASE {d:} {filename.ext} { /O}
PURGE {d:} {filename.ext} { /O}

This command deletes the specifies file(s) from the specified disk.

d: The drive that contains the file(s). When the drive is not specified, the default drive is used.

filename The filename(s) to be deleted.

.ext The file type extension.

/O An option to delete files without verification. The file type extension must be specified or the /O option will not work.

The asterisk (*) is the wildcard character. For group-selected and directory-wide DEL operations, you can substitute the asterisk for *filename* and *ext*. If the filename contains an asterisk, multiple files are deleted.

Example 1

To delete a single file:

```
FM> DEL M:DEFAULT.MET

... reading source file(s)
DELETE FILE  M:DEFAULT  .MET      OK!

FM>
```

Example 2

To delete, *with* verification, all the processed files on the M disk beginning with the letter Q, type the following:

```
FM> DEL M:Q*.PRO

... reading source file(s)
DELETE FILE  M:Q1E23B7A.PRO  ARE YOU SURE  [Y/*N]: Y
DELETE FILE  M:Q1E238B1.PRO  ARE YOU SURE  [Y/*N]: Y

FM>
```

Example 3

To delete, *without* verification, all the processed files on the M disk beginning with the letter Q, type the following:

```
FM> DEL M:Q*.PRO/O

... reading source file(s)
(Press space bar to stop)
DELETE FILE    M:Q1E23B7A.PRO    OK!
DELETE FILE    M:Q1E238B1.PRO    OK!

FM>
```

Example 4

To delete all files on the A drive, type the following:

```
FM> DEL A:*. *

... reading source file(s)
DELETE FILE    A:TEST      .BAS    ARE YOU SURE    [Y/*N]: Y
DELETE FILE    M:OLDFILES.BAS    ARE YOU SURE    [Y/*N]: Y
DELETE FILE    M:NEWFILES.BAS    ARE YOU SURE    [Y/*N]: Y

FM>
```

DI{RECTORY} {d:} {filename.ext} {/W}

This command prints the directory of files for the specified drive.

The information provided by DIRECTORY consists of the complete name of the file, the length of the file in bytes, and the date and time of day it was created. Following this are the quantities of free disk space.

d: The drive that contains the file(s). When the drive is not specified, the default drive is used.

filename The filename(s) to be displayed.

.ext The file type extension.

/W An option to list only the file names

The asterisk (*) is the wildcard character. For group-selected and directory-wide DIR operations, you can substitute the asterisk for *filename* and *ext*.

Example 1

To obtain a directory list of all files on a specific drive:

FM> DIR M:

(Press space bar to stop)
... getting directory

VOLUME NAME: MDISK DRIVE: M
DATE: JUN 2, 1990 11:20:53

FILE NAME	LENGTH	CREATED/VERSION
SIGNAL .BNC	512	12/11/89 10:10:42
Q1EA8C22.PRO	512	12/11/89 10:21:02
Q1EA6F64.PRO	512	12/11/89 10:33:21

	USED	FREE	MAX
FILES	3	27	30
BYTES	1536	81664	83968

Example 2

To print information about a single file:

```
FM> DIR M:SIGNAL.BNC
```

```
(Press space bar to stop)
```

```
... getting directory
```

```
VOLUME NAME: MDISK          DRIVE:  M
DATE: JUN  2, 1990          11:24:53
```

FILE NAME	LENGTH	CREATED/VERSION
SIGNAL .BNC	512	12/11/89 10:10:42

```
1 FILE(S)          81664 BYTES FREE
```

```
FM>
```

Example 3

To print information about a group of files:

```
FM> DIR M:*.*/W
```

```
(Press space bar to stop)
```

```
... getting directory
```

```
VOLUME NAME: MDISK          DRIVE:  M
DATE: JAN  2, 1990          11:28:23
```

```
FILE NAMES:
SIGNAL .BNC  Q1EA8C22.PRO  Q1EA6F64.PRO  Q1EA8FC11.PRO
Q1EA9A41.PRO  Q1EA9C66.PRO
```

	USED	FREE	MAX
FILES	6	27	30
BYTES	1536	81664	83968

```
FM>
```

Note: In example 3, the /W option was used to list only the file names.

FORMAT {*d:*}, {*vol name*}, {*max files*}

INIT {*d:*}, {*vol name*}, {*max files*}

This command initializes a disk for use.

d: The drive containing the disk to be formatted. When the drive is not specified, the default drive is used.

vol name An optional volume name (six characters maximum).

The volume name must begin with a letter and cannot exceed six characters. The volume name can contain letters, numbers, and the underscore character.

max files The maximum number of files to be stored on the disk.

The normal range for the maximum number of files is from 64 to 256.

When the volume name and maximum files are not specified, they are defaulted to:

vol name = 'DISK'

max files = '256'

Example

To format the A disk and assign the name RESULT to the disk volume:

FM> FORMAT A:,RESULT

```
YOU ARE GOING TO FORMAT DISK      : 'D:'  
VOLUME NAME                       : 'RESULT'  
MAXIMUM OF FILES                  : '256'
```

CAUTION: ALL DATA WILL BE DESTROYED

ARE YOU SURE [Y/*N]: Y

PLEASE WAIT FORMATTING IN PROGRESS

FM>

LI{ST} {d:} {filename.ext} {/A} {/H}

This command lists the contents of the specified file name.

d: The drive that contains the file(s). When the drive is not specified, the default drive is used.

filename The filename(s) to be listed.

.ext The file type extension.

/A An option to force listing to LIF ASCII format.

/H An option to force listing to HEX format.

The LIST command prints the contents of these file types:

.BAA BASIC ASCII file (LIF ASCII).

.RPT Report file from an analytical run (LIF ASCII).

.RPA Report file from an **ANALYZE** command (LIF ASCII).

.PRA Processed peak file from an **ANALYZE** command (LIF ASCII).

.RAW Unbunched signal data file.

.BNC Bunched data file from an analytical run.

.BNA Bunched data file from an **ANALYZE** command.

.UA1 The Autoscheduler file extension.

.UA2 (LIF ASCII)

.UA3 (LIF ASCII)

Note: LIF (Logical Interchange Format) ASCII files have a .BAA, .RPT, .RPA, .PRA, .UA1, .UA2, or .UA3 file extension.

Example 1

To list area slices of a .RAW, .BNC, or .BNA data file:

FM> LIST A:Q12A3488.BNA

INITIAL TIME (min) : ? 0.1

END TIME (min) : ? 0.4

Searching for the first point

(Press space bar to stop)

Number	Time min	Width sec/20	Height uv
30	.1000000	4.00	166.00
31	.1033333	4.00	163.00
32	.1066667	4.00	160.00

Listing terminated by user request

FM>

Note: The limits for INITIAL TIME and END TIME are:

0.0005 <= T <= 6900. To list the data points in decending order, enter the larger of the two times first.

Example 2

To list the contents of an LIF ASCII file:

FM> LIST A:TEST.BAA

LIF TYPE = 1

CAUTION: PREMATURE HALT MAY DAMAGE DATA FILE

(Press space bar to stop)

10 ! TEST BASIC PROGRAM

20 PRINT 'TEST BASIC PROGRAM'

30 GOTO 20

OF ASCII CHARACTER(S) : 69

LINE(S) : 3

FM>

Example 3

To list a file in Hex format:

```
FM> LIST A:TEST.BNC/H
```

(Press space bar to stop)

```
0300 03 81 03 81 01 CF 01 27 01 2A 03 1F 01 14 02 40  ....^*....@
0310 01 67 09 41 02 48 03 E3 03 FA 01 39 08 53 01 FB  .g.A.H....9.S..
0320 02 A9 03 38 02 B8 08 FE 02 6A 08 A1 00 B0 03 9A  ...8....j.....
Listing terminated by user request
```

FM>

Example 4



To list an LIF ASCII file in Hex format:

```
FM> LIST M:AUTOCALL.UA1/H
```

CAUTION: PREMATURE HALT MAY DAMAGE DATAFILE

(Press space bar to stop)

```
0000 00 0C 20 41 55 54 4F 5F 53 49 4E 47 4C 45 4C OD  .. AUTO_SINGLE..
0010 20 4A 41 4E 20 20 31 2C 20 31 39 30 31 00 00 09  JAN  1, 1901...
0020 20 30 30 3A 34 36 3A 32 36 00 00 0F 20 4D 3A 41  00:46:26... M:A
Listing terminated by user request
```

FM>

Note: Never use the [BREAK] key to stop the listing of an LIF ASCII file. This could cause the file to be damaged. Use the space bar to stop the listing.

RE{NAME} {d:} {filename1.ext1} {,} {filename2.ext2} { /O }

The RENAME command changes the name of *filename1* to *filename2*. The filenames must have the same type extension.

d: The drive that contains the file(s). When the drive is not specified, the default drive is used.

filename1 The filename(s) to be renamed.

, or space The separator: “,” and “ ” are both valid.

filename2 The new filename(s).

.ext1 File type extension for filename1.

.ext2 File type extension for filename2.

.ext1 and *.ext2* must be the same.

/O Option to overwrite files having the same name.

The asterisk (*) is the wildcard character. For group-selected and directory-wide REN operations, you can substitute the asterisk for *filename1* and *filename2*. If *filename1* and *filename2* are both wildcarded, *.ext* cannot also be wildcarded.

The renamed file remains on the designated drive (*d:*).

Example 1

To rename a file on the A drive:

```
FM> RENAME A:RESULTS.RAW DATAJL21.RAW
```

After the renaming operation, the file name A:RESULTS.RAW no longer exists.

Example 2

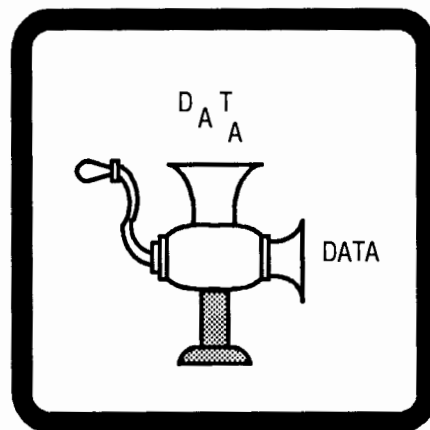
```
FM> REN
DEVICE                               [D:] : ? A:
FILENAME(S)                         [*] : ?
EXTENSION                           [*] : ?
NEW FIRST CHARACTER(S)             [*] : ? RSC_
...  reading source file(s)
(Press space bar to stop)

RENAME  A:EXECPRG1.BAA  TO  A:RSC_PRG1.BAA  OK!
RENAME  A:EXECPRG2.BAA  TO  A:RSC_PRG2.BAA  OK!
RENAME  A:EXECPRG3.BAA  TO  A:RSC_PRG3.BAA  OK!

Operation terminated by user request.

FM>
```


Reprocessing Data Files



In this chapter....

- The Batch Reprocessing Program 5-2
- Reprocessing Data with Calibration Option Parameters .. 5-4
- Reprocessing with Data from the Sequence Sample Table 5-11
- Specifying a Calibration File for Reprocessing 5-16

The Batch Reprocessing Program

The Batch Reprocessing program reprocesses a group or sequence of data files that you specify. It reanalyzes them using the currently active method and information from either:

- The sample information table of a sequence
- The calibration options.

To reprocess calibrated data files, you must provide sample information, Sample Amount, ISTD Amount, etc, for each sample so the calculations can determine the sample's unknown amounts.

Reprocessing Data Files Using a Sample Information Table

A sample information table can also supply the sample information when reanalyzing data files. The calibration will be updated with information from the sample table.

Reprocess data files with a sample information table when you are:

- Reprocessing data files resulting from a sequence.
- Reanalyzing a set of data files using different sample and calibration parameters for each file.
- Reanalyzing the results of one sequence with the sample information (Sample Amount, ISTD Amount, etc) from another sample table.
- Correcting mistakes present in the sample table of the original sequence and reanalyzing the sequence to obtain the correct results.

Reprocessing Data Files Using Calibration Option Parameters

You can reprocess data files using the sample information stored with the calibration, the calibration options. In this case, you are prompted to identify the calibration samples and the level of recalibration.

Reprocess data files with the calibration options when you are:

- Reprocessing a few data files.
- Using the same sample and calibration information for each file.
- Developing and optimizing a method.

Reprocessing Data with Calibration Option Parameters

To reprocess data files with the calibration options:

- Edit the calibration option parameters, if necessary.
- Start the Batch Reprocessing program.
- Select calibration options for sample information.

Editing the Calibration Options

Edit the calibration options, if necessary, to supply the desired sample information to be used during reprocessing. The calibration options are stored with the calibration in a method file. See section 5 of the HP 3396 Series II Operating Manual for more information about the calibration options.

```
* LOAD METH M:METHNAME.MTH @
```

- 1. Load the method file you intend to use for reprocessing data files.**

```
* EDIT CALIB @
```

```
1 = CALIB PROCEDURE  
2 = RETENTION TIME WINDOWS  
3 = TABLE ENTRIES  
4 = PEAK GROUPS  
5 = CALIB OPTIONS
```

- 2. Press [EDIT] [CALIB] [ENTER] to access the calibration options selection.**

```
SECTION TO BE EDITED: 5 [ENTER]
```

- 3. Enter 5 to edit the calibration options.**

Editing the Calibration Options (cont.)

```
CALIBRATION OPTIONS
RF of uncalibrated peaks [0.0000E+00 ]: [ENTER]
Replace calibration fit [Y/N*]: [ENTER]
Disable post-run RT update [Y/N*]: [ENTER]
ISTD peak #: 4
ISTD AMT [1.0000E+00 ]: 0.05
SAMPLE AMT [0.0000E+00 ]: 2.0
MUL FACTOR [1.0000E+00 ]: [ENTER]
```

4. Respond to the dialog by entering the Sample Amount, ISTD Amount, and Multiplier factor values to be used when reprocessing data files.

```
* STORE METH M:METHNAME.MTH @
```

5. Store the method file with the edited calibration information.

Starting the Batch Reprocessing Program

In this procedure, you will update the calibration information of the active method.

4. **Press function key [2], labeled Reproc. Data, to start the Batch Reprocessing program.**

WELCOME TO THE HP 3396 BATCH REPROCESSING PROGRAM (Rev.B.00.03)

At Any Prompt: 'Q' [ENTER] Quits
 'S' [ENTER] Starts Over

Method file for reprocessing [Current active*]: [ENTER]

5. **Enter the name of the method being used to reprocess the data files or press [ENTER] to accept the current active method.**

This method contains the integration and calibration parameters that control how the data files are reprocessed. It will be loaded into the active workspace.

The method also contains the calibration information. When reprocessing is complete, you can store the updated calibration information from recalibrations by saving the current method after the files are reprocessed.

Calibration file for reprocessing [Current active*]: [ENTER]

6. **Press [ENTER] to select the calibration information of the active method.**

When you choose the calibration information of the active method:

- The updated calibration information is written to the currently active workspace.
- To save this information for future recall, you must save the current method or calibration.

At this prompt, you could supply the name of a calibration file to use instead of the method's calibration information. See "Specifying a Calibration File for Reprocessing" on page 5-15.

Select Calibration Options for Sample Information

Use Sequence Sample Table for reprocessing [Y*/N]: N

- 7. Enter N to select the calibration options to supply the sample information for reprocessing.**

When you choose *not* to use the sample table, the sample information in the calibration options of the specified calibration file will be used to reprocess the data files. It overwrites the calibration options information of the current calibration information. The sample information includes the Sample Amount, ISTD Amount, and Multiplier factor.

By editing the calibration information, and changing the Sample Amount, ISTD Amount, and Multiplier values, you reprocess the data files with the new sample information. See “Editing the Calibration Options” on page 5-4.

Enter the first signal data file name: A:FPD9D011.BNC

- 8. Enter the first data file in the sequence you want to reprocess.**

Enter the last signal data file name: A:FPD9D014.BNC

- 9. Enter the last data file in the sequence you want to reprocess.**

The alphanumeric value of the last signal data filespec must exceed the first. In the example above, the last signal data filespec, A:FPD9D014.BNC has a greater alphanumeric value than the first signal data filespec A:FPD9D011.BNC.

At the RECALIB LEVEL # prompt for each file; push [ENTER] for no recalibration, enter the level number to recalibrate, or enter `D` if you don't want to reanalyze the file.

VOLUME NAME: FPDDAT DRIVE:A

FILE #	FILE NAME	RECALIB LEVEL #
1	FPD9D011.BNC	1
2	FPD9D012.BNC	
3	FPD9D013.BNC	3
4	FPD9D014.BNC	D

End of selected files

- 10. For each calibration standard, enter the recalibration level to be updated with new calibration information during reprocessing. Press [ENTER] to identify an entry as an ordinary sample.**

A recalibration updates the calibration information in the currently active method.

Are you ready to reprocess the selected data files [Y*N]: Y

- 11. Enter Y if all of your entries are correct and you are ready to reprocess.**

Enter N if you want to edit the list or make a correction to one or more of your entries before reprocessing.

At this point, the program reanalyzes the signal data files using the sample and recalibration information from the sample table of the sequence you specified.

Example

WELCOME TO THE HP 3396 BATCH REPROCESSING PROGRAM (Rev.B.00.03)

At Any Prompt: `Q` [ENTER] Quits
 `S` [ENTER] Starts Over

Method file for reprocessing [Current active*]: [ENTER]

Calibration file for reprocessing [Current active*]: [ENTER]

Use the Sequence Sample Table for reprocessing [Y*/N]: N

Enter the first signal data file name: A:FPD9D011.BNC

Enter the last signal data file name: A:FPD9D014.BNC

At the RECALIB LEVEL # prompt for each file; push [ENTER] for no recalibration, enter the level number to recalibrate, or enter `D` if you don't want to reanalyze the file.

OVOLUME NAME: FPDDAT DRIVE:A

FILE #	FILE NAME	RECALIB LEVEL #
1	FPD9D011.BNC	1
2	FPD9D012.BNC	
3	FPD9D013.BNC	3
4	FPD9D014.BNC	D

End of selected files

Are you ready to reanalyze the selected files [Y*/N]: Y

At this point, the program reanalyzes the signal data files A:FPD9D011.BNC through A:FPD9D014.BNC in numerical order. The reports will be generated using the sample and recalibration information from the currently active method including the Sample Amount, ISTD Amount, and Multiplier. This is *not* the same as the analyze function, which uses the sample information stored with the data file.

Editing a File Entry

Are you ready to reprocess the selected data files [Y*/N]: N

To edit the file sequence, enter the file number to be edited. At the RECALIB LEVEL # prompt, push [ENTER] for no calibration, enter the correct level, or enter a `D` if you do not want to analyze the file. At `File #`, an [ENTER] without a number ends editing.

FILE #	FILE NAME	RECALIB LEVEL #
3	FPD9D013.BNC	2

Reprocessing with Data from a Sequence Sample Table

Specify a sequence sample table that will supply the desired sample information during reprocessing. You can create a new sequence with the required information or edit and save an existing sequence.

To reprocess data files with sample table information, you must:

- Create and/or edit and save a sequence. Then supply the sequence sample table with the sample information to use for each data file being reprocessed.
- Start the Batch Reprocessing program.
- Enter the name of the sequence file.

Editing the Sequence Sample Table

If you are reprocessing calibrated data files produced by a sequence, use the *sequence sample table* to supply the sample information.

If necessary, edit the sample table of the sequence to which you intend to supply the sample information during reprocessing. See section 9 of the HP 3396 Series II Operating Manual for more information about the sample information table.

```
* LOAD SEQ M:SEQNAME.SEQ @
```

1. Load the sequence file to use for reprocessing data files.

```
* EDIT SEQ @
```

```
1 = ALS INFORMATION  
2 = EQUILIBRATION TIME DELAY  
3 = METHOD FILE SPECIFICATION  
4 = SAMPLE INFORMATION TABLE
```

2. Press [EDIT] [SEQ] [ENTER] to access the list of sequence sections to edit.

SECTION TO BE EDITED: 4 [ENTER]

3. Enter 4 to edit the sample information table.

SAMPLE INFORMATION TABLE
BOTTLE OR RUN SAMPLE INDEXED [R/B*]: [ENTER]

4. Enter the fist and last bottle (or run number) for the data files being reanalyzed.

The reprocessing program will attempt to match the bottle number (or run number when run indexing) of each data file being reprocessed to an index entry in the sample information table. If no match occurs, the sample information from the last successful index match is used.

BOTTLE # : 1 [ENTER]
ISTD AMT: 0.05 [ENTER]
SAMPLE AMT: 2.0 [ENTER]
MUL FACTOR: 1 [ENTER]
RECALIBRATION [Y/N*]: [ENTER]
NAME: STREAM1 [ENTER]
REPORT MEMO: [ENTER]

5. Respond to the dialog by entering the ISTD Amount, Sample Amount, and Multiplier factor values to be used when reprocessing data files. You can also identify the recalibration level.

BOTTLE # : 2 [ENTER]
ISTD AMT: 0.05 [ENTER]
SAMPLE AMT: 2.0 [ENTER]
MUL FACTOR: 1 [ENTER]
RECALIBRATION [Y/N*]: Y [ENTER]
NAME: CAL [ENTER]
REPORT MEMO: [ENTER]

6. Enter the ISTD Amount, Sample Amount, etc, for each data file.

BOTTLE # : [ENTER]

7. Press [ENTER] for the BOTTLE # prompt to stop editing.

* STORE METH M:METHNAME.MTH @

8. Store the sequence file with the edited calibration information.

Starting the Batch Reprocessing Program

In this procedure, you will elect to update the calibration information of the active method.

7. Press function key [2], labeled Reproc. Data, to start the Batch Reprocessing program.

WELCOME TO THE HP 3396 BATCH REPROCESSING PROGRAM (Rev.B.00.01)

At Any Prompt: `Q` [ENTER] Quits
 `S` [ENTER] Starts Over

Method file for reprocessing [Current active*]: [ENTER]

8. Enter the name of the method to use when reprocessing the data files.

This method contains the integration parameters that will control how the data files are reprocessed. It will be loaded into the active workspace.

The method also contains the calibration information. When reprocessing is complete, you can store the updated calibration information from recalibrations by saving the current method after the files are reprocessed.

Calibration file for reprocessing [Current active*]: [ENTER]

9. Press [ENTER] to select the calibration information of the active method.

When you choose the calibration information of the active method:

- The updated calibration information is written to the currently active workspace.
- To save this information for future recall, you must save the current method.

At this prompt, you could supply the name of a calibration file to use instead of the method's calibration information. See "Specifying a Calibration File for Reprocessing" on page 5-15.

Use the Sequence Sample Table for reprocessing [Y*/N]: Y

- 10. Enter Y to select the sample table of a sequence you will specify as the source of sample information.**

Sequence file with Sample Table [ENTER = current active]: A:FPD3

- 11. Enter the name of the sequence that contains the sample table you've chosen (and perhaps edited) .**

If you do not supply the .SEQ file extension, the program does it for you.

This sample table must contain the Sample Amount, ISTD Amount, etc, for each data file in the sequence being reanalyzed.

Enter the first signal data file name: A:FPD9D011.BNC

- 12. Enter the first data file in the sequence you want to reprocess.**

You must include the disk drive identifier and the file extension for the first signal data filespec.

Enter the last signal data file name: FPD9D014

- 13. Enter the last data file in the sequence you want to reprocess.**

If you do not supply the file extension, the program does it for you.

The the disk drive identifier and the file extension for the second signal data filespec are optional.

The alphanumeric value of the last signal data filespec must exceed the first. In the example above, the first signal data filespec, A: FPD9D014 .BNC has a greater alphanumeric value than the last signal data filespec
A: FPD9D011 .BNC .

At this point, the program reanalyzes the signal data files using the sample and recalibration information from the sample table of the sequence you specified.

Example

WELCOME TO THE HP 3396 BATCH REPROCESSING PROGRAM (Rev.B.00.01)

At Any Prompt: 'Q' [ENTER] Quits
 'S' [ENTER] Starts Over

Method file for reprocessing [Current active*]: [ENTER]

Calibration file for reprocessing [Current active*]: [ENTER]

Use the Sequence Sample Table for reprocessing [Y*/N]: Y

Sequence file with Sample Table [Current active*]: A:FPD3

Enter the first signal data file name: A:FPD9D011.BNC

Enter the last signal data file name: A:FPD9D014.BNC

At this point, the program reanalyzes the signal data files A: FPD9D011.BNC through A: FPD9D014.BNC in numerical order using the sample and recalibration information from the sample table of the specified sequence.



Specifying a Calibration File for Reprocessing

Referring to step 6 on pg. 5-5 and step 9 on pg. 5-12, you can specify a calibration file to use for reprocessing data files or updated after reprocessing.

Calibration file for reprocessing [Current active*]: [ENTER]

3. Enter the name of an optional calibration file to use instead of the calibration information of the active method.

When you specify a calibration file for reprocessing:

- The calibration file overwrites *all* of the method's calibration information, including the sample information specified in the calibration options. The new values of Sample Amount, ISTD Amount, and Multiplier factor are used to reprocess the data files.
- The calibration information of the currently active method is updated but not stored in the method file. *To incorporate the updated calibration in the method file, you must store the method.*

* [STORE] [METH] "method file spec" [ENTER]

Enter a calibration file when you want to reprocess data files with a single method (one set of integration parameters) using different calibration files.

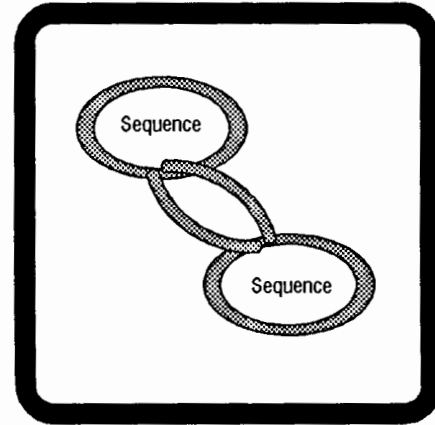
Storing the Updated Calibration Information

If you specified a calibration file for reprocessing:

- The specified calibration file will not be updated with new data when the recalibration files are reprocessed. Only the currently active calibration is updated.
- To save the calibration information for future recall, save the calibration file or save the method file used for reprocessing.

Storing this calibration file does not overwrite the calibration information in the method file, so the method file (and its calibration information) remains unchanged.

Chaining Sequences



In this chapter....

- The Sequence Chaining Program 6-2
- Running the Sequence Chaining Program 6-3
- Looking Over the Results 6-7

The Sequence Chaining Program

The Sequence Chaining program allows you to string several sequences together to form a “chain” of sequences. Each sequence in the chain may have different method and sequence table parameters to analyze different types of samples.

When you start the Sequence Chaining program:

1. The first sequence executes using its assigned method to analyze the samples. After each run, the postrun program (optional) executes.
2. The next sequence in the chain executes using its assigned method to analyze the samples. After each run, the postrun program (optional) executes.
3. And so on until the last sequence in the chain completes.

Before You Start

The Sequence Chaining program has the following requirements:

- The sequence and method files must already exist.
- The Autoscheduler files must already exist if you plan to schedule postrun programs. See section 2, “Scheduling Postrun Programs,” for more information about the Autoscheduler.

How Calibration Information is Stored

When a sequence is finished or when the sequence loads a new method, the calibration table (in the active workspace) is copied into and stored with the method. Subsequent runs using this method will reflect the updated calibration information.

Dual Channel Sequence Chaining

Sequence chaining with dual channel instruments is discussed in *HP 5890 Dual Channel Operation* (HP p/n G1208-90100).

Running the Sequence Chaining Program

At power on, the default key assignment for the Sequence Chaining program is function key [6]. Unless you've changed the key assignment, pressing this key will start the Sequence Chaining dialog.

Pressing [ENTER] at any dialog prompt will input the default value (i.e., the currently active sequence, method, Autoscheduler file, or the default selection marked with an asterisk).

1. **Press function key [6], labeled Seq. Chain, to start the Sequence Chaining program.**

```
WELCOME TO THE HP 3396 SEQUENCE CHAINING PROGRAM (Rev.B.00.02)
```

```
At Any Prompt:      'Q' [ENTER] Quits
                    'S' [ENTER] Starts Over
```

```
Copying M:AUTOCALL.UA1 to M:AUTOCALL.UA3 .....
```

```
Sequence list already defined on Jun 1, 1990
```

```
Do you want to redefine [Y*/N]: [ENTER]
```

2. **If a sequence chain already exists, this prompt will be printed. Press [ENTER], or enter Y to create a new sequence chain.**

If you enter **N**, the existing sequence chain will start.

Entering the Sequences to be Chained

The Sequence Chaining dialog prompts you to specify each sequence in the chain and its associated method. Enter the sequence and method files in the order you want them to be executed.

```
Enter Sequence file [X:XXXXXXXX.SEQ*]: M:SEQ1.SEQ
```

- 3. Enter the name of an existing sequence file to be the first in the sequence chaining list.**

Enter the complete sequence file specifier including the disk drive and the file extension. If you do not supply the disk specifier, it defaults to M:.

Initially, the default sequence file name is [X:XXXXXXXX.SEQ*]. Once you enter a sequence file name, it becomes the default and appears as the default sequence file for subsequent sequence file prompts. For example, the entry made in this step, M:SEQ1.SEQ, becomes the default sequence file for the next sequence prompt. See step 6 below.

Note: If you enter a run indexed sequence, the following message is printed:

```
Enter Sequence file [X:XXXXXXXX.SEQ*]: M:SEQ1.SEQ
SEQUENCE SPECIFIES RUN # INDEXING: FIRST RUN = nnn LAST RUN = nnn
CAUTION : INTEGRATOR RUNNUM WIL BE SET TO nn AT START TIME
```

```
Enter Method file [X:XXXXXXXX.MET*]: M:METH1.MET
```

- 4. Enter the name of an existing method file to be assigned to the sequence in step 4.**

Specify a method file with the complete method file specifier including the disk drive and the file extension. If you do not supply the disk drive specifier, the program defaults it to M:.

Initially, the default method file name is [X:XXXXXXXX.MET*]. Once you enter a method file name, it becomes the default and appears as the default method file for subsequent sequence file prompts. For example, the entry made in this step, M:METH1.MET, becomes the default method file for the next method prompt. See step 6 below.

To use the method specified in the sequence, press [SPACE BAR]
[ENTER].

Enter Autoscheduler file [X:XXXXXXXX.UA1*]: M:AUTOCALB.UA1

5. To schedule a postrun program to execute after each run of the sequence, enter the name of an existing Autoscheduler File.

You can assign an optional Autoscheduler file to any sequence in the chain for scheduling and executing postrun programs. Enter the complete file specifier including the disk drive and the file extension. If you do not supply the disk specifier, it defaults to M:.

Initially, the default file name is [X:XXXXXXXX.UA1*] . Once you enter an Autoscheduler file name, it becomes the default and appears as the default Autoscheduler file for subsequent prompts. For example, the entry made in this step, M:AUTOCALB.UA1, becomes the default Autoscheduler file for the next Autoscheduler prompt. See step 6 below.

To specify no Autoscheduler file for this sequence, press [SPACE BAR] [ENTER].

Note: When the sequence chain runs, the Autoscheduler file for the sequence currently running is renamed to M:AUTOCALL.UA1 so the Autoscheduler can use it. When the sequence is finished, the original Autoscheduler file name designated in the chain is returned. See “Creating and Storing Multiple Autoscheduler Files” in section 2 of this manual for more information.

Enter the Sequence file name [M:SEQ1.SEQ*]: M:SEQ2.SEQ

Enter the Method file name [M:METH1.MET*]: M:METH2.MET

Enter the Autoscheduler file name [M:AUTOCALB.UA1*]: M:AUTOANBL.UA1

6. Enter the next sequence, method, and Autoscheduler File (optional) for the next sequence in the chain.

Continue entering sequence, method, and Autoscheduler names until you've entered the last sequence in the chain.

Running the Samples

Enter the Sequence file name [X:XXXXXXXX.SEQ]: [SPACEBAR] [ENTER]

7. **To start the sequence chain and run the samples, press the [SPACEBAR] followed by [ENTER] to quit the dialog and start the sequence chain.**

When the sequence chain runs:

1. The first sequence in the chain is loaded.
2. Next, the method associated with the first sequence is loaded.
3. The first sequence executes, using the assigned method to run each vial specified in the sample information table.

After each run, the optional postrun program executes (if specified).

4. The second sequence executes, using its assigned method to run each vial specified in the sample information table.
5. The optional postrun program (if specified) for the second sequence executes after each run.
6. The program stops when all of the samples in the last sequence in the chain have been run.

Stopping a Sequence Chain

To stop the sequence chain in progress, press the **[BREAK]** key.

Restarting a Sequence Chain

To restart the sequence chain, press key 6. After the program header is printed, the restart prompt appears.

Continue from [BREAK] or Start Over [C*/S]:

- Press **C** to continue the sequence chain at the point you pressed the **[BREAK]** key.
- Press **S** to restart the Sequence Chain program from scratch and build a new chaining workfile.

Looking Over the Results

The results of a two sequence chain are shown on the next few pages.
When this sequence chain was prepared, sequence # 1 was not assigned an Autoscheduler file. Sequence # 2 was assigned an Autoscheduler file that runs the Autonaming postrun program.

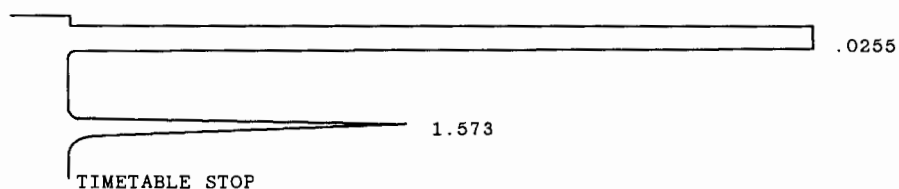
Sequence Number 1, Run Number 1

Loading Sequence.....A:SEQ1.SEQ
Loading Method.....A:METH1.MET

Waiting for System Readiness

RUN # 1 JAN 1, 1990 02:44:10

START



Closing Signal File A:Q1EB8752.BNC

Storing processed peaks to A:Q1EB8752.PRO

RUN # 1 JAN 1, 1990 02:44:10

SAMPLE NAME: 121589T1 SAMPLE# 1

SIGNAL FILE: A:Q1EB8752.BNC

PEAK FILE : A:Q1EB8752.PRO

ESTD%-AREA

RT	AREA	TYPE	CAL#	AMOUNT
.255	262736	BB	1	900.122
.755	26239	BH	2R	99.877

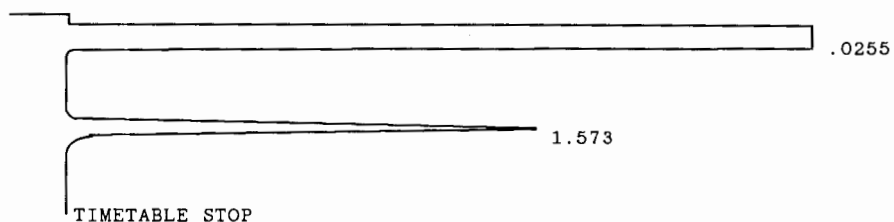
TOTAL AREA=288975

MUL FACTOR=1.0000E+00

Sequence Number 1, Run Number 2

RUN # 2 JAN 1, 1990 02:48:21

START



Closing Signal File A:Q1EB8803.BNC

Storing processed peaks to M:Q1EB8803.PRO

RUN # 2 JAN 1, 1990 02:48:21

SAMPLE NAME: 121589T2 SAMPLE# 2

SIGNAL FILE: M:Q1EB8803.BNC

PEAK FILE : M:Q1EB8803.PRO

ESTD%-AREA

RT	AREA	TYPE	CAL#	AMOUNT
.255	262736	BB	1	899.988
.755	51142	BH	2R	193.752

TOTAL AREA=313878

MUL FACTOR=1.0000E+00

The Sequence Chaining program will run all of the samples in sequence number 1 and then chain to sequence number 2.

Sequence # 2 was assigned an Autoscheduler file that runs the Autonaming program.

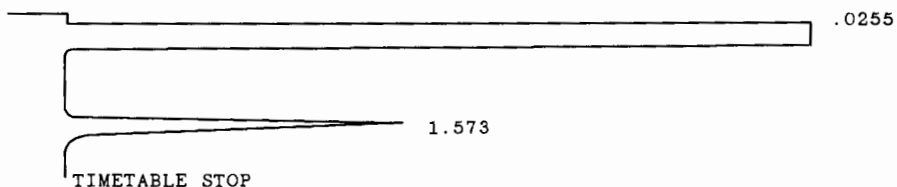
Sequence Number 2, Run Number 1

VERIFYING SINGLE/DUAL CHANNEL, BASIC WORKSPACE
INSTALLING/VERIFYING INET PARAMETERS
SEQUENCE FILE -> REALTIME = A:SEQ2.SEQ
METHOD FILE -> REALTIME = A:METH2.MET
SETTING BASIC SPACE
AUTOSCHEDULER WORKFILE COMPATIBLE WITH SYSTEM

Waiting for System Readiness

RUN # 3 JAN 1, 1990 02:54:13

START



Closing Signal File A:Q1EB8832.BNC

Storing processed peaks to A:Q1EB8832.PRO

RUN # 3 JAN 1, 1990 02:54:13

SAMPLE NAME: 122689T1 SAMPLE# 1

SIGNAL FILE: A:Q1EB8832.BNC

PEAK FILE : A:Q1EB8832.PRO

ESTD%-AREA

RT	AREA	TYPE	CAL#	AMOUNT
.255	262736	BB	1	900.122
.755	26243	BH	2R	99.997

TOTAL AREA=288979

MUL FACTOR=1.0000E+00

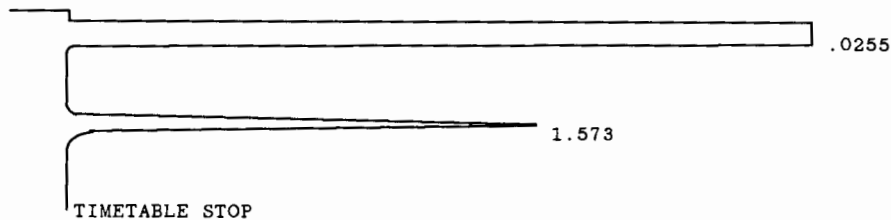
Signal file A:Q1EB8832.BNC renamed A:TESTA001.BNC

Processed peak file A:Q1EB8832.PRO renamed A:TESTA001.PRO

Sequence Number 2, Run Number 2

RUN # 4 JAN 1, 1990 03:08:23

START



Closing Signal File A:Q1EB8855.BNC

Storing processed peaks to M:Q1EB8855.PRO

RUN # 4 JAN 1, 1990 03:08:23

SAMPLE NAME: 122689T2 SAMPLE# 2

SIGNAL FILE: M:Q1EB8855.BNC

PEAK FILE : M:Q1EB8855.PRO

ESTD%-AREA

RT	AREA	TYPE	CAL#	AMOUNT
.255	262745	BB	1	899.997
.755	51232	BH	2R	193.811

TOTAL AREA=313977

MUL FACTOR=1.0000E+00

Copying M:AUTOCALL.UA3 to M:AUTOCALL.UA1

END OF PROGRAM

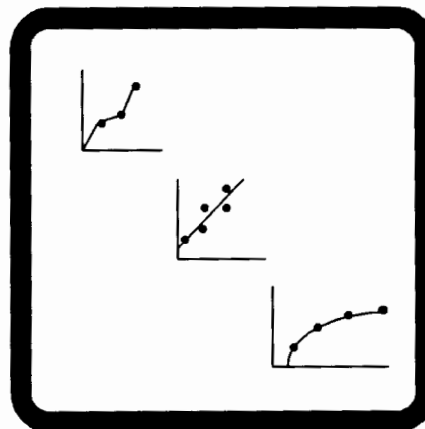
Signal file A:Q1EB8855.BNC renamed A:TESTA001.BNC

Processed peak file A:Q1EB8855.PRO renamed A:TESTA001.PRO

===== END OF RUN =====

The program stops when all of the samples have been run in sequence number 2.

Plotting a Calibration Curve



In this chapter....

- The Calibration Curve Plotting Program 7-2
- Using the Default Plotting Parameters 7-4
- Choosing Plot Parameters 7-5
- Plotting ISTD Peaks 7-7

The Calibration Curve Plotting Program

The curve plotting program plots the response curves of calibrated peaks from either a method or calibration file. The calculations used to produce the plots are identical to the integrator's internal curve fitting calculations. Absolute amounts are used in each case.

You can plot calibration data from either:

- A method or calibration file that you specify.
- The current active method.

When plotting a calibration curve, you can:

- Specify the plotting parameters.
- Use the plotting program defaults.

Using the Calibration Curve Plotting Program

When the integrator is first switched on, the default key assignment for plot calibration curve is function key [3].

Unless you've changed the key assignment, pressing this key will start the plot calibration curve dialog.

Starting the Program

1. **Press function key [3], labeled `Plot Calib.`, to start the plot calibration curve program.**

WELCOME TO THE HP 3396 CALIBRATION CURVE PLOTTING PROGRAM Rev. B.00.06

At any prompt: `Q` [ENTER] Quits
 `S` [ENTER] Starts Over

Specifying the Method or a Calibration File to Plot

Load which method or calib. file [Current active*]: [ENTER]

- 2. Enter the name of the calibrated method or calibration file you wish to plot, or press [ENTER] to specify the current active method.**

Press [ENTER] to plot the peaks in the current active method, or type the name of the method or calibration file to plot.

You must include the device designator when you specify a file. Use the following format:

A:TESTMETH.MET

Only calibrated methods can be plotted. If you specify an uncalibrated method, an error message is printed:

This Method Contains NO Calibrated Peaks !

Selecting the Peak(s) to Plot

Plot the calibration curve for which CAL# [All*]: 1

- 3. Enter the calibration number, in the calibration table, of the peak to plot, or enter A to plot all of the peaks in the calibration.**

Press [ENTER] if you want to plot all of the calibrated peaks.

Each plot takes approximately three minutes to complete, so be sure you really want to plot all of the peaks.

- If you choose to plot all calibrated peaks, then the plotting will use default plotting parameters from the current active method.
- If the method is a single-level calibration, then the response factor for each calibrated peak will be printed but no plot will be drawn.

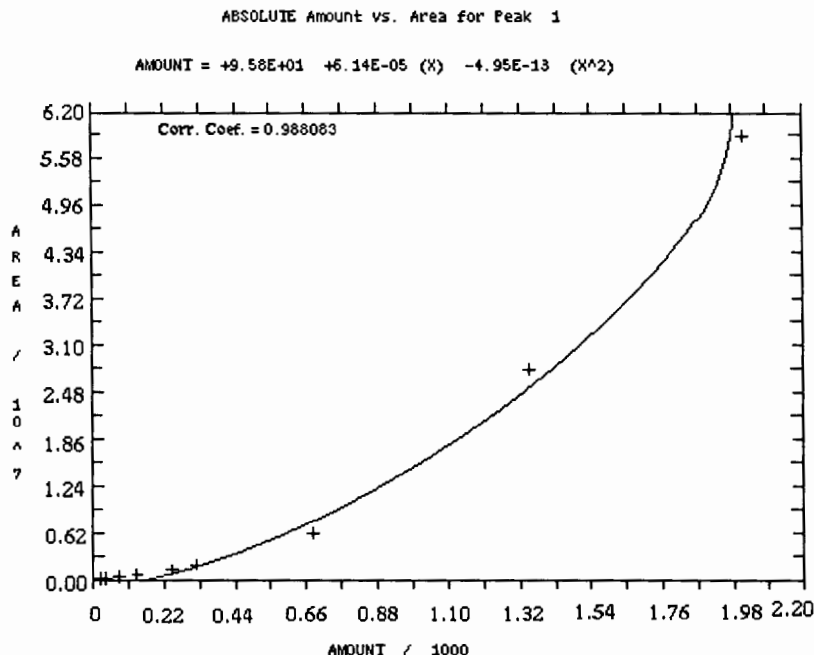
Using the Default Plotting Parameters

The next prompt determines which plotting parameters to use. You can use the program's default plotting parameters or choose your own plotting parameters.

Choose plotting parameters or plot with defaults [C/D*]: [ENTER]

4. Press [ENTER] to use the default plotting parameters.

Select the defaults to plot peaks using the curve type specified in the current active method (point-to-point, linear, or non-linear) and the program's default plotting parameters. The plotting begins immediately.



The horizontal axis is in units of absolute amount and the vertical axis is in units of area counts.

Plot additional peaks [Y*/N]:

5. When the curve plotting is finished, press [ENTER] to plot additional calibration numbers (calibrated peaks), or enter N to exit the program.

Choosing Plot Parameters

You can investigate alternate calibration curve plots by specifying different plot parameters for the same peak.

Choose plotting parameters or plot with defaults [C/D*]: **C**

4. Enter C to choose individual plotting parameters.

At this point, instead of plotting, the program prompts you for the plotting parameters.

- The curve fit parameter (point-point, linear, or non-linear)
- The maximum value for the area axis.

Enter maximum for area axis [AUTOSCALE*]: 60000000

5. Enter a maximum value for the area axis or press [ENTER] to select Autoscale.

- The maximum allowable entry for the area axis is 1E15.
- If you enter a value for the maximum area axis, the actual scaling used for the plot is twice the maximum calibrated area.

If your entry for the maximum area axis exceeds one of these limits, it will be ignored and you will be reprompted for a value within the allowable range.

If you select Autoscale, the maximum scaling used is the largest calibrated area and amount plus five percent.

Select point-point, linear, or non-linear curve fit [P*/L/N]:

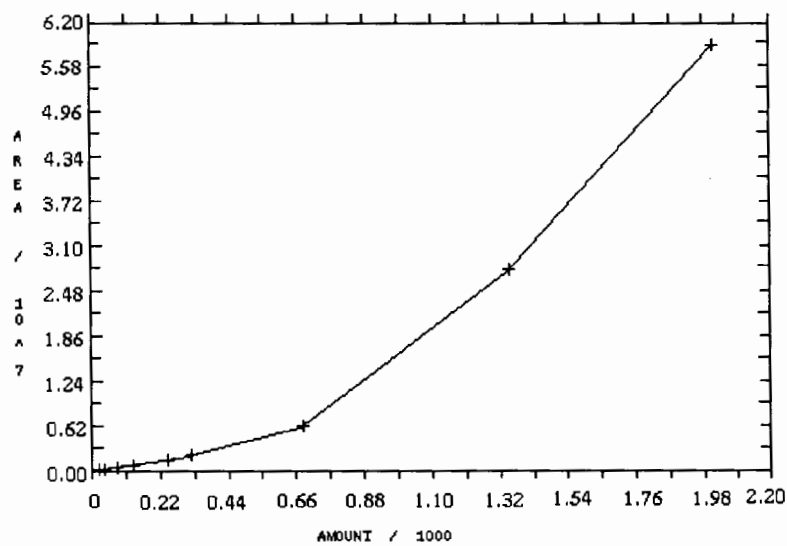
6. Press [ENTER] to select the default, a point-to-point curve fit, or enter an L or an N to select an alternative curve fit.

Type an **L** for a linear plot or **N** or a nonlinear plot.

At this point the plotting begins. The resulting plot appear on the next page.

ABSOLUTE Amount vs. Area for Peak 1

Point-to Point Linear Plot



Plot additional peaks [Y*/N]: N

7. **Press [ENTER] to plot additional peaks, or enter N to stop plotting and exit the program.**

If you choose to plot additional peaks, the programs returns to the following prompt:

Plot the calibration curve for which CAL# [All*]:

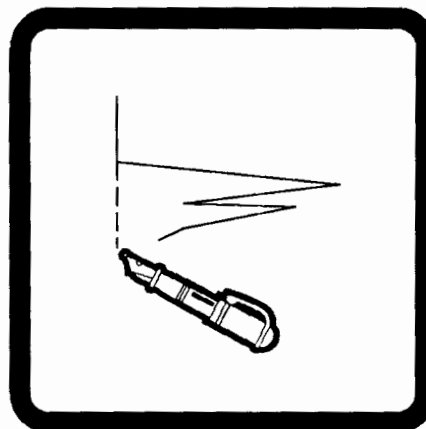
Plotting ISTD Peaks

The integrator uses relative response factors when it calculates the amounts using internal standard.

Since the curve plotting program uses absolute amounts to produce the plots, plots of internal standard peaks will show the response factors for internal standard as independent absolute factors. This lets you to verify the linearity of the internal standard.

The calibration table carries absolute response factors, but the calibration curves themselves are relative to the internal standard.

Plotting a Baseline



In this chapter....



- The Baseline Program 8-2
- Preparing to Run the Baseline Program 8-4
- Running the Baseline Program with the Autoscheduler .. 8-5
- Running the Baseline Program Manually 8-10
- Scheduling Baseline as an Autocall Program 8-22
- Dealing with Negative Peaks 8-23

The Baseline Program

When you make a run, the integrator produces a chromatogram and a report that are used to identify or characterize the sample. The accuracy of the report depends on how the chromatographic baseline is constructed. This means that while developing a method, you must constantly examine the baseline to ensure that the integration is being performed properly.

Practically speaking, however, examining and interpreting each baseline in detail is a tedious, time consuming process.

Often, a better way to check the baseline construction is to let the Baseline program replot the chromatogram and automatically draw in the baseline for you, showing you exactly how the baseline was constructed.

How the Baseline Program Works

The Baseline program is a BASIC program that replots the chromatogram obtained during an analysis and draws in the baseline, showing exactly how the integration was done.

The Baseline program can be automated as a postrun program or run manually by pressing the key labeled **Baseline**.

When the chromatogram is replotted:

- The signal and processed peak files of the original chromatogram supply the chromatographic and baseline information.
- Method parameters determine the replotted chromatogram's appearance.

Note: The Baseline program cannot access signal and processed peak files from a host device (drive specifier H:).

Running the Baseline Program with the Autoscheduler

When you schedule Baseline as a postrun program, it executes immediately after the run. At the end of the run, the program replots the chromatogram and draws the baseline using the *current* method, signal, and processed peak files.

Running the Baseline Program Manually

Press function key [8] to run the the Baseline program manually.

When the program is run manually, the interactive dialog prompts you for the method, signal file, processed peak files, and other parameters. When you have supplied all of the required information, the program replots the chromatogram and draws the baseline using the parameters *that you specified* in the dialog.

Running the Baseline Program from BASIC

To run the baseline program from BASIC, you have to call the application program named `E:USER_INT.BAS`. If you try to run `E:BASELINE.BAS` from BASIC, you will only produce an error message.

Running the Baseline Program as a BASIC Autocall Program

You can run the Baseline program as a BASIC Autocall program by assigning `E:BASELINE.BAS` to function key [0].

Preparing to Run the Baseline Program

To replot a chromatogram with its baseline, the run must store both the signal file (bunched or raw data) and the processed peak file of the original chromatogram. If necessary, select option 2, enter the appropriate run data storage parameters for the method being used, and save the method.

Example

The example below shows how to set up the data storage parameters for the original chromatogram. In this instance, both the bunched signal file and the processed peak file will be stored on the M disk.

```
[OP()] [2] [ENTER]
RUN DATA STORAGE
Store signal data [Y/N*]: Y [ENTER]
Device [M*]: [ENTER]
Bunched or raw data [B/R*]: B [ENTER]
Store processed peaks [Y/N*]: Y [ENTER]
Device [M*]: [ENTER]
```

* Current default values are identified by an asterisk.

In most instances, you should store bunched data because:

- Bunched data uses less memory per analysis than raw data.
- The Baseline program must reanalyze a raw signal file to produce a filtered (bunched) file for a filtered plot. That takes more time than simply replotting a bunched signal file.

Running the Baseline Program with the Autoscheduler

To run the Baseline program using the Autoscheduler, follow the steps below.

1. **Load the method for this analysis.**
2. **Press function key [9] to start the Autoscheduler program.**
3. **Press [ENTER] to accept the current dialog selections until the heading 'SCHEDULING AUTOCALL PROGRAMS' is printed.**
4. **To schedule the Baseline program as a postrun program, respond to the dialog prompts as follows:**

```
SCHEDULING AUTOCALL PROGRAMS
-----
Schedule postrun AUTOCALL programs [Y/N*]: Y
AUTOCALL filespec : E:BASELINE.BAS
AUTOCALL filespec : [ENTER]
Store the current Autoscheduler file ('N' re-edits) [Y/N*] Y
Enter autoscheduler file name [M:AUTOCALL.UA1*]: [ENTER]
M:AUTOCALL.UA1 - Exists, ok to overwrite [Y/N*]: Y
Create another Autoscheduler file [Y/N*]: [ENTER]
DONE
```

Note: If you are also scheduling the Autaname program, Autaname must be scheduled as the first AUTOCALL filespec.

Dual Channel

If your integrator has dual channel capability, the Autoscheduler dialog and your responses will be similar. The major difference is there will be separate prompts for both the real-time and buffered channels.

Starting the Run or Sequence

After you have prepared the Autoscheduler file, you can start the auto-scheduled run or sequence.

You *must* use function key [0] to start the run or sequence. If you start a run by pressing the **[START]** button on the integrator, GC, etc, the run will start, but the postrun programs will *not* execute.

After each run, the postrun program(s) specified in the M: AUTOCALL.UA1 Autoscheduler file will execute. In this example, the postrun program is the Baseline application program.

1. Press function key [0] to initiate the START dialog.

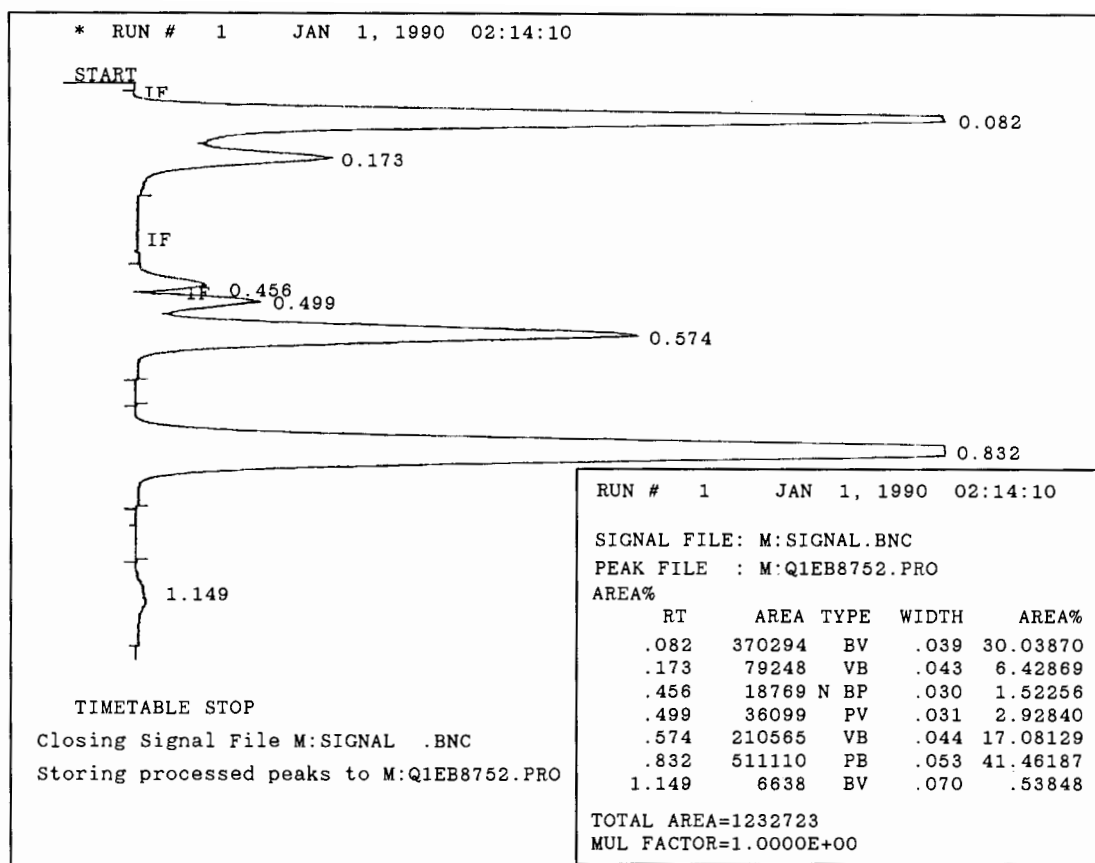
When you press key [0], labeled **Auto Start**, a program called AUTO_TOP performs a number of prerun tests to check INET status, program space, etc, to ensure that the postrun programs will execute. Each test will print a confirming message or an error message at its conclusion. If an error message is printed, see the Appendix for error recovery information.

```
*  VERIFYING FILES, BASIC WORKSPACE
SETTING SEQ/MET, BASIC WORKSPACE
AUTOSCHEDULER WORKFILE COMPATIBLE WITH SYSTEM
```

When everything checks okay, you are prompted to *start the run or sequence*.

```
Start a sequence or a run or quit [R*/S/Q): [ENTER]
```

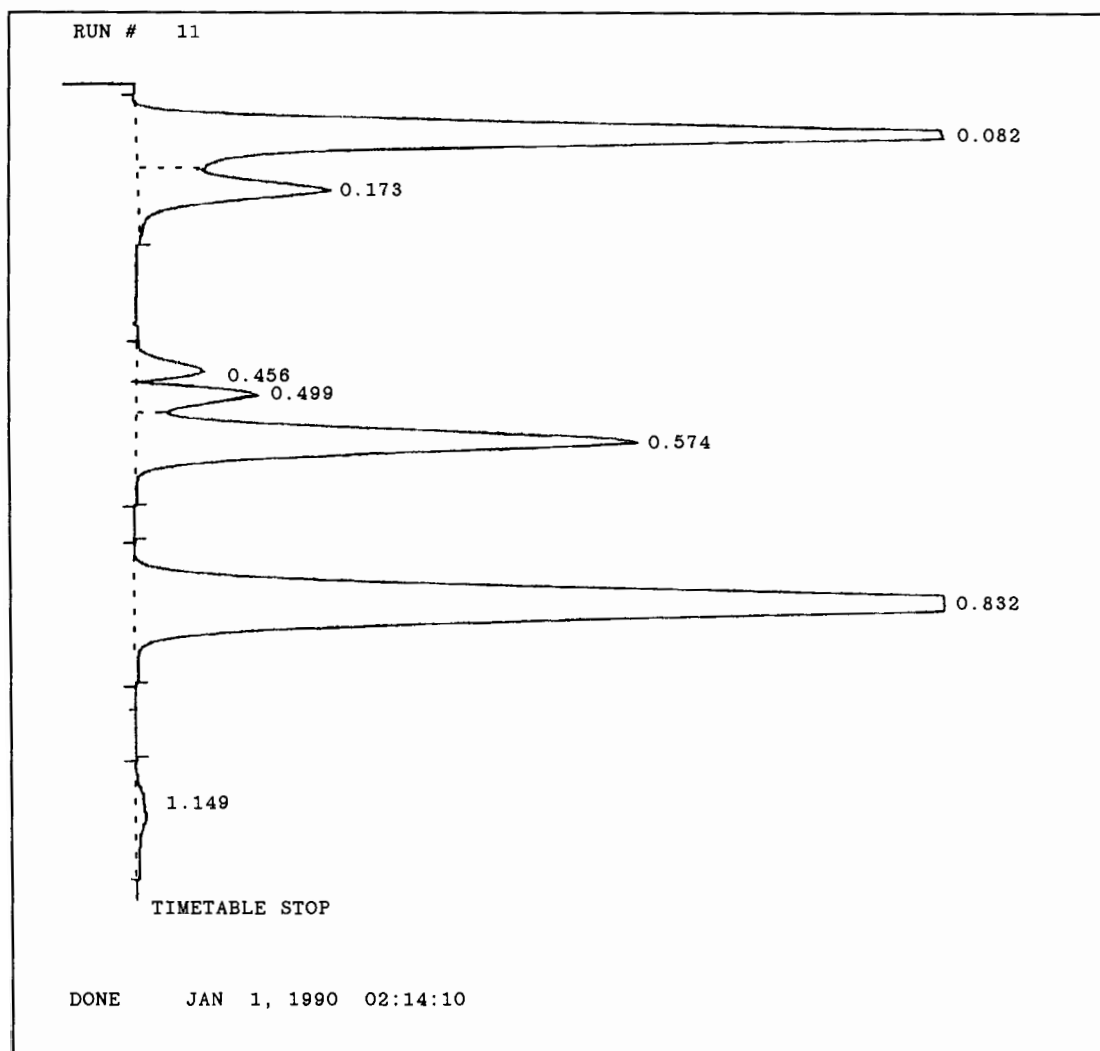
2. Press [ENTER] to start the run.



The Original Chromatogram.

This is the chromatogram resulting from the original run. The Baseline program replots this chromatogram and draws in the baseline based on the integration parameters. The replotted chromatogram and the baseline appear on the following page.

This is the chromatogram replotted by the Baseline program.



The Replotted Chromatogram with the Baseline Drawn.

The replotted chromatogram on the previous page has the following characteristics:

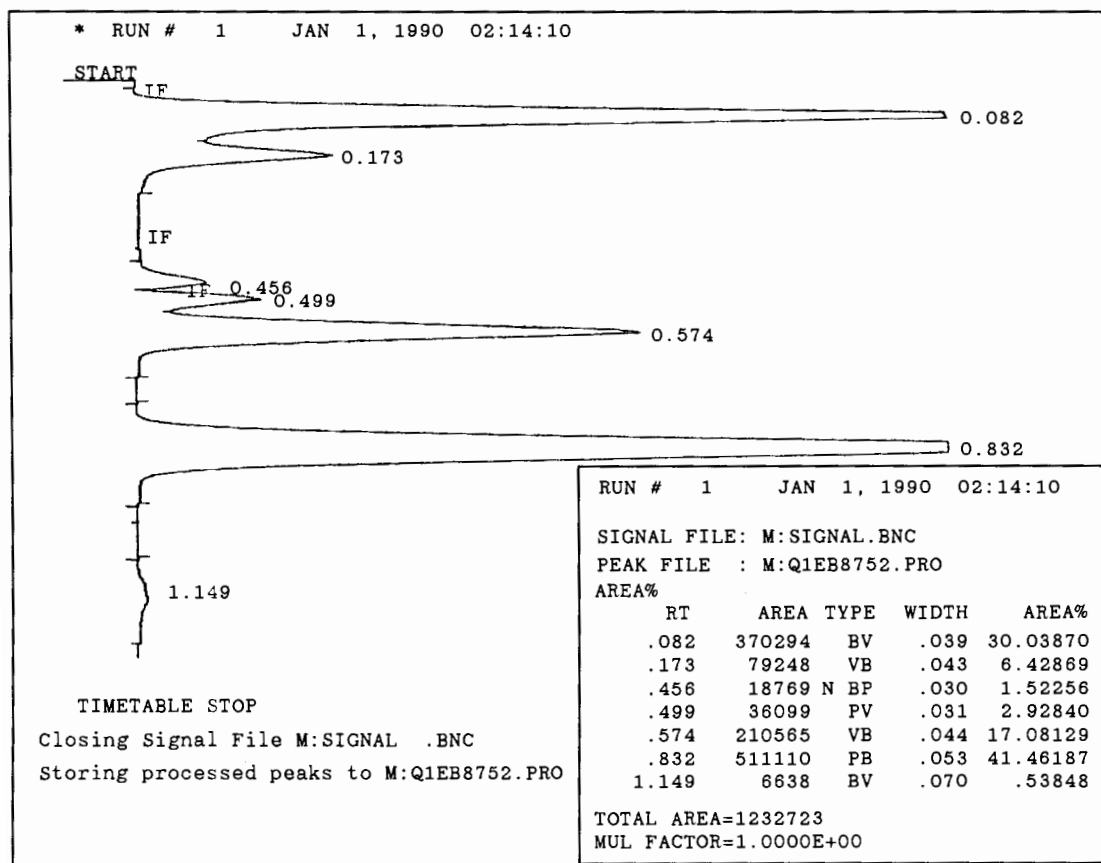
- The retention times will be annotated unless disabled with integration function 7 (IF 7).
- Chart annotations for ZE, AT, CS, AR, PW, TH, IF, and ^ZE will appear on the replot as determined by the method.
- Only integration functions 7, 8, 11, and 12 of the method will *affect* the replot. Integration event 13 is forced on during the replot to display the result of functions 11 or 12 when they are used.

Running the Baseline Program Manually

You can run the Baseline program manually, using the interactive dialog. Before starting the Baseline program, you have to store some peak and baseline information by running an analysis.

1. Check that the run data storage parameters are properly set with option 2 to store processed peak and signal files.
See page 8-4 about the run storage options.
2. Run your analysis.

The result files will contain the processed peak and signal files for the Baseline program to replot.



The Original Chromatogram.

Starting the Interactive Dialog

3. Press function key [8] to start the postrun replot program.

WELCOME TO THE HP 3396 CHROMATOGRAM REPLOTING PROGRAM (Rev. A.00.13)

At any prompt: 'Q'[ENTER] QUILTS
 'S'[ENTER] STARTS OVER

Plotting with the Current Method and Signal Files

Use the current method and data files for the replot [Y*/N]: Y

4a. Type Y or press [ENTER] to select the current method and data files.

PROCESSING

(See page 9-17 for the replotted chromatogram.)

Specifying the Signal Files to Plot

Use the current method and data files for the replot [Y*/N]: N

4b. Enter N to enter the dialog for independently specifying the method file and/or the signal files.

Signal file for the replot [M:TESTA001.BNC]: M:RUN12.BNC

5. Enter the name of the signal file from a previous analysis.

If run data has been stored, the current signal file name from the last run is shown in the brackets. Pressing [ENTER] without specifying a signal would enter the current signal file.

Processed peak file for the replot [M:TESTA001.PRO]: M:Q7BCB1C1.PRO

- 6. Enter the name of the processed peak file from a previous analysis that you want to replot.**

If run data has been stored, the current processed peak file from the last run is automatically shown in brackets. Press [ENTER] to replot the current processed peak file.

The signal file and processed peak files must both come from the same run.

Start time for the replotted chromatogram [0.0]:

- 7. Press [ENTER] to accept the current value of 0.0 minutes as the start time for the replot.**

Stop time for the replotted chromatogram [3.27]:

- 8. Enter the desired stop time for the replot.**

The value in brackets is the end-of-signal time from the last run.

By selecting appropriate values for start and stop times, you can select only the portion of the replotted chromatogram and baseline you wish to appear.

Use the current method for plotting parameters [Y*/N]:

- 9a. Press [ENTER] to accept the current selection, Y.**

PROCESSING

(See page 9-17 for the replotted chromatogram.)

Specifying a Method for the Plotting Parameters

Use the current method for plotting parameters [Y*/N]: N

- 9b. Enter N to indicate that you do not want to use the current method.**

Specify a method file [Y*/N]: Y

10a. Press [ENTER] to accept the current selection, Y.

Method file [M:CURRENT.MET]: M:OLDMETH.MET

11a. Enter the name of the method to use for replotting the chromatogram and plotting the baseline.

You can specify a method with a different set of plotting parameters (attenuation, chart speed, zero), which will make the replotted chromatogram appear quite different from the original chromatogram. For example, one method can be optimized for the analysis and the other optimized for the replot and baseline.

When the replotting method contains timetable events, only integration functions 7, 8, 11, and 12 will affect the replot. Integration event 13 is forced on during the replot to display the result of functions 11 or 12 when they are used.

PROCESSING

(See page 9-17 for the replotted chromatogram.)



Specifying the Plotting Parameters Explicitly

Specify a method file [Y*/N]: N

10b. Enter N to indicate you want to enter the plotting parameters independently.

When you do not specify a method file:

- The parameters in the current method are ignored during the replot and the program prompts you for plotting parameters.
- The plotting parameters are set for the entire run and cannot be time-programmed.
- The processed peak data is plotted using the Baseline program plotting parameters to produce the chromatogram and baseline.
- No integrator functions are printed in the baseline replot.

Plotting a Baseline 8-13

Attenuation [0]:

- 11b. Press [ENTER] to accept the default or enter an attenuation value for the replot.**

Chart speed [1.0]:

- 12. Press [ENTER] to accept the default or enter a chart speed value for the replot.**

[ZERO] Position [0]:

- 13. Press [ENTER] to accept the default or enter a zero value for the replot.**

Retention time labeling [Y*/N]:

- 14. Press [ENTER] to accept the current selection, Y.**

Start/stop tick marks [Y*/N]:

- 15. Press [ENTER] to accept the current selection, Y.**

Skip paper perforations in plot [Y/N*]:

- 16a. Press [ENTER] to accept the current selection, N.**

If you choose to skip perforations during the replot, the program assumes that you have the top-of-form properly set. When you have supplied all of the program's parameters, the specified chromatogram is replotted and its baseline is drawn.

PROCESSING

(See page 9-17 for the replotted chromatogram.)

Replotting a Raw Signal File as Filtered Data

When the original chromatogram is source (raw) data, you can replot the chromatogram either from source (raw) or filtered data.

Source or filtered plot [S/F*]: [ENTER]

- 16b. Press [ENTER] to accept the current selection, F, for the replot.**

In this example, raw data was stored for the original chromatogram. This gives you the choice of plotting source (raw) or filtered (analyzed) data.

PK WD [0.04]:

- 17b. Press [ENTER] to accept the current peak width value for the replot.**

Since you choose to plot filtered data, you must supply a peak width value for the replotted chromatogram. The peak width entered here is used by the Baseline program to reanalyze the raw signal file and produce a bunched file (.BNA) that can be plotted.

Store bunched signal file on device [M:*]:

- 18. Press [ENTER] to accept the current default storage device M.**

The bunched signal file (BNA) created during the reanalysis is temporarily stored on the storage device you specify; M, A, B, etc. It is deleted when the baseline is completed.

Skip paper perforations in plot [Y/N*]:

- 19. Press [ENTER] to accept the current selection, N.**

If you choose to skip perforations during the replot, the program assumes that you have the top-of-form properly set. When you have supplied all of the program's parameters, the specified chromatogram is replotted and its baseline is drawn.

PROCESSING

(See page 9-17 for the replotted chromatogram.)

Replotting a Raw Signal File as Source Data

Source or filtered plot [S/F*]: S

16c. Enter S to select source plot type for the replot.

In this example, raw data was stored for the original chromatogram. This gives you the choice of plotting source (raw) or filtered (analyzed) data. If you store a bunched signal file for the original chromatogram, however, you could not obtain a source plot.

Skip paper perforations in plot [Y/N*]:

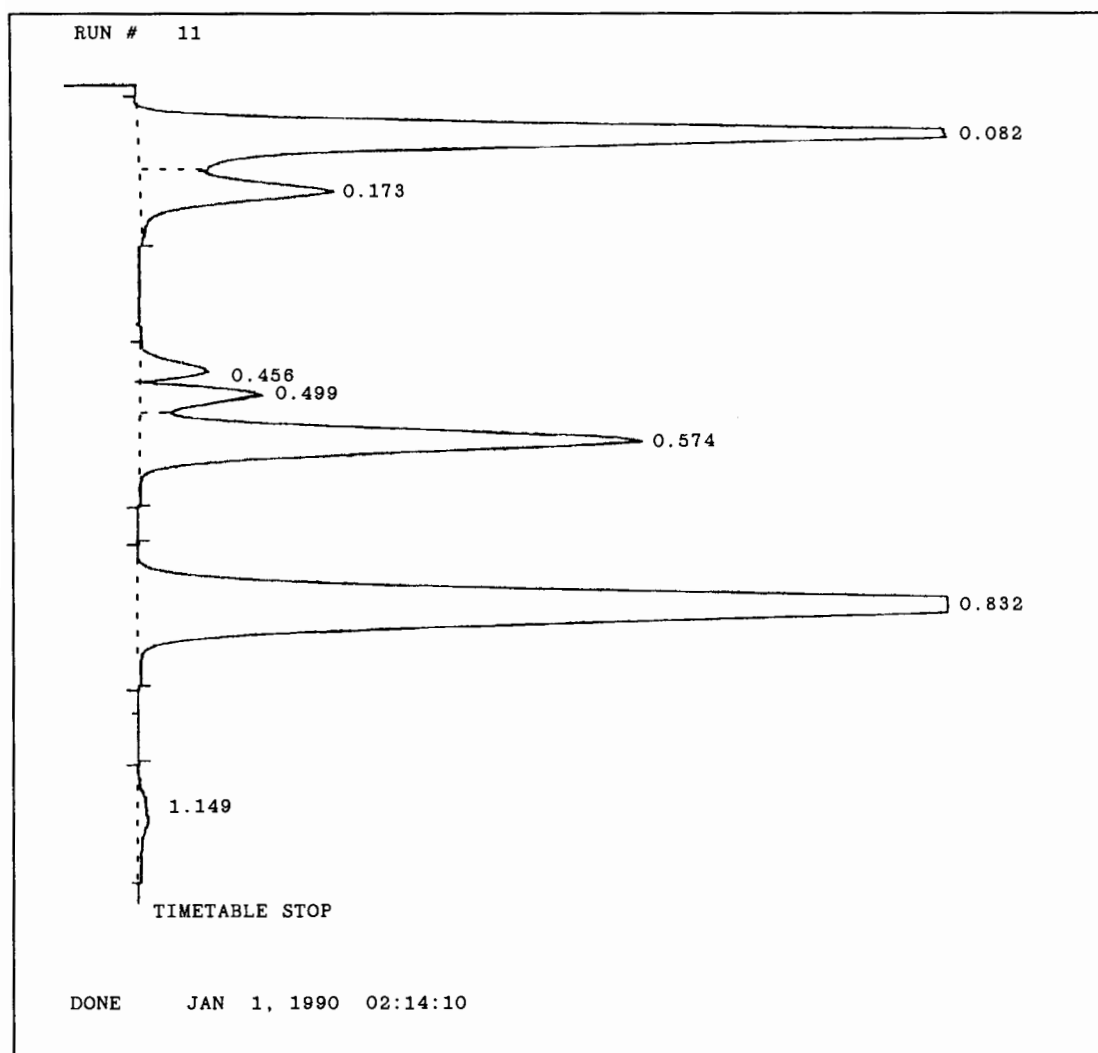
17c. Press [ENTER] to accept the current selection, N.

If you choose to skip perforations during the replot, the program assumes that you have the top-of-form properly set. When you have supplied all of the program's parameters, the specified chromatogram is replotted and its baseline is drawn.

PROCESSING

(See page 9-17 for the replotted chromatogram.)

The Replotted Chromatogram and Baseline



The Replotted Chromatogram with the Baseline Drawn.

When you specify a method for the plotting parameters, the replotted chromatogram has the following characteristics:

- The end of a solvent peak is marked with an S.
- Chart annotations for ZE, AT, CS, AR, PW, TH, IF, and ^ZE will appear on the replot as determined by the method.
- Only integration functions 7, 8, 11, and 12 of the method will affect the replot. Integration event 13 is forced on during the replot to display the result of functions 11 or 12 when they are used.

Examples

Plotting with the Current Method and Signal Files

WELCOME TO THE HP 3396 CHROMATOGRAM REPLOTTING PROGRAM (Rev. A.00.13)

At any prompt: 'Q'[ENTER] QUILTS
 'S'[ENTER] STARTS OVER

Use the current method and data files for the replot [Y*/N]: Y [ENTER]

PROCESSING

Replotting a Raw Signal File as Source Data

WELCOME TO THE HP 3396 CHROMATOGRAM REPLOTTING PROGRAM (Rev. A.00.13)

At any prompt: 'Q'[ENTER] QUILTS
 'S'[ENTER] STARTS OVER

Use the current method and data files for the replot [Y*/N]: N [ENTER]

Signal file for the replot [M:TESTA001.BNC]: M:RUN12.BNC [ENTER]

Processed peak file for the replot [M:TESTA001.PRO]: M:Q7BCB1C1.PRO [ENTER]

Start time for the replotted chromatogram [0.0]: [ENTER]

Stop time for the replotted chromatogram [3.27]: [ENTER]

Use the current method for plotting parameters [Y*/N]: [ENTER]

Specify a method file [Y*/N]: N [ENTER]

Attenuation [0]: 2 [ENTER]

Chart speed [1.0]: 2 [ENTER]

[ZERO] Position [0]: [ENTER]

Retention time labeling [Y*/N]: [ENTER]

Start/stop tick marks [Y*/N]: [ENTER]

Source or filtered plot [S/F*]: S [ENTER]

Skip paper perforations in plot [Y/N*]: [ENTER]

PROCESSING

Specifying the Plotting Parameters Explicitly

WELCOME TO THE HP 3396 CHROMATOGRAM REPLOTING PROGRAM (Rev. A.00.13)

At any prompt: `Q`[ENTER] QUILTS
 `S`[ENTER] STARTS OVER

Use the current method and data files for the replot [Y*/N]: N [ENTER]

Signal file for the replot [M:TESTA001.BNC]: M:RUN12.BNC [ENTER]

Processed peak file for the replot [M:TESTA001.PRO]: M:Q7BCB1C1.PRO [ENTER]

Start time for the replotted chromatogram [0.0]: [ENTER]

Stop time for the replotted chromatogram [3.27]: [ENTER]

Use the current method for plotting parameters [Y*/N]: [ENTER]

Specify a method file [Y*/N]: N [ENTER]

Attenuation [0]: 2 [ENTER]

Chart speed [1.0]: 2 [ENTER]

[ZERO] Position [0]: [ENTER]

Retention time labeling [Y*/N]: [ENTER]

Start/stop tick marks [Y*/N]: [ENTER]

Skip paper perforations in plot [Y/N*]: [ENTER]

PROCESSING

Specifying a Method for the Plotting Parameters

WELCOME TO THE HP 3396 CHROMATOGRAM REPLOTING PROGRAM (Rev. A.00.13)

At any prompt: `Q`[ENTER] QUILTS
 `S`[ENTER] STARTS OVER

Use the current method and data files for the replot [Y*/N]: N [ENTER]

Signal file for the replot [M:TESTA001.BNC]: M:RUN12.BNC [ENTER]

Processed peak file for the replot [M:TESTA001.PRO]: M:Q7BCB1C1.PRO [ENTER]

Start time for the replotted chromatogram [0.0]: [ENTER]

Stop time for the replotted chromatogram [3.27]: [ENTER]

Use the current method for plotting parameters [Y*/N]: N [ENTER]

Specify a method file [Y*/N]: [ENTER]

Method file [M:CURRENT.MET]: M:OLDMETH.MET [ENTER]

PROCESSING

Replotting a Raw Signal File as Filtered Data

```
WELCOME TO THE HP 3396 CHROMATOGRAM REPLOTTING PROGRAM (Rev. A.00.13)

At any prompt:      'Q'[ENTER] QUILTS
                   'S'[ENTER] STARTS OVER

Use the current method and data files for the replot [Y*/N]: N [ENTER]
Signal file for the replot [M:TESTA001.BNC]: M:RUN12.BNC [ENTER]
Processed peak file for the replot [M:TESTA001.PRO]: M:Q7BCB1C1.PRO [ENTER]
Start time for the replotted chromatogram [0.0]: [ENTER]
Stop time for the replotted chromatogram [3.27]: [ENTER]
Use the current method for plotting parameters [Y*/N]: [ENTER]
Specify a method file [Y*/N]: N [ENTER]
Attenuation [0]: 2 [ENTER]
Chart speed [1.0]: 2 [ENTER]
[ZERO] Position [0]: [ENTER]
Retention time labeling [Y*/N]: [ENTER]
Start/stop tick marks [Y*/N]: [ENTER]
Source or filtered plot [S/F*]: [ENTER]
PK WD [0.04] .02 [ENTER]
Store bunched signal file on device [M:*]: [ENTER]
Skip paper perforations in plot [Y/N*]: [ENTER]
PROCESSING
```

Specifying the Signal Files to Plot

```
WELCOME TO THE HP 3396 CHROMATOGRAM REPLOTTING PROGRAM (Rev. A.00.13)

At any prompt:      'Q'[ENTER] QUILTS
                   'S'[ENTER] STARTS OVER

Use the current method and data files for the replot [Y*/N]: N [ENTER]
Signal file for the replot [M:TESTA001.BNC]: M:RUN12.BNC [ENTER]
Processed peak file for the replot [M:TESTA001.PRO]: M:Q7BCB1C1.PRO [ENTER]
Start time for the replotted chromatogram [0.0]: [ENTER]
Stop time for the replotted chromatogram [3.27]: [ENTER]
Use the current method for plotting parameters [Y*/N]: [ENTER]
PROCESSING
```

Scheduling Baseline as an Autocall Program

You can automate the Baseline program by scheduling it as a postrun Autocall program. It will be loaded and run automatically at the end of each analysis.

Only one Autocall program can be assigned to function key [0] at a time.

* ASSIGN 0, E:BASELINE.BAS

1. **Assign E:BASELINE.BAS to function key [0] to schedule Baseline as an Autocall program.**

After each run that follows, the chromatogram will be replotted and the baseline will be drawn using the current method, signal, and processed peak files.

2. **Press the integrator [START] button to start the run or sequence.**

Do not press the key labeled Auto Start to start the run.

* ASSIGN 0, E:AUTO_TOP.BAS

3. **After the run or sequence is finished, return the program assignment of function key [0] to its original program, E:AUTO_TOP.BAS**

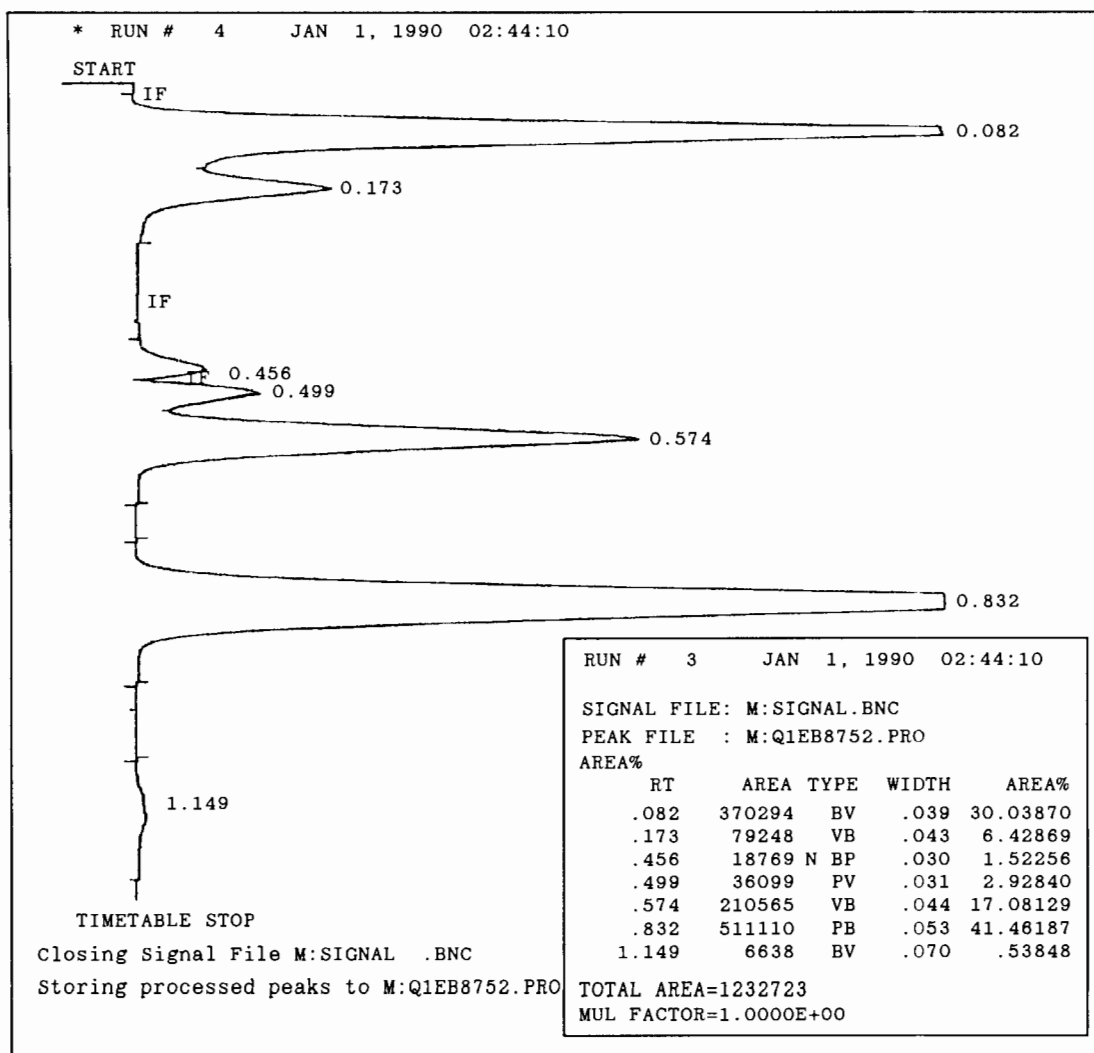
If you fail to do this, when you try to use the Autoscheduler it will not operate correctly.

The program called AUTO_TOP performs a number of prerun tests to check INET status, program space, etc, to ensure that the Autoscheduler can execute the postrun programs.

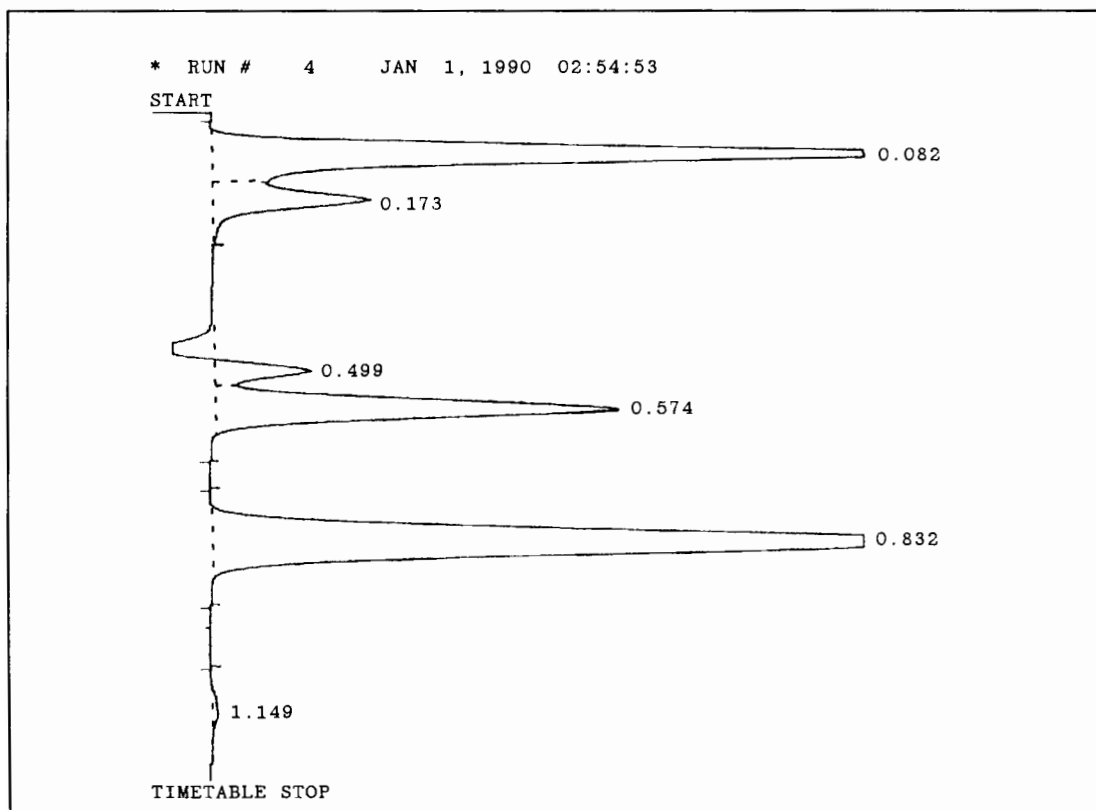
Dealing with Negative Peaks

When you replot a chromatogram that contains negative peaks and use a different method for the replot, some precautions are necessary.

For example, in the chromatogram below, functions 11 and 12 were used to deal with a negative peak. The result is a chromatogram with no apparent negative peaks.



The method used for the replotted chromatogram *must* also contain integration functions 11 and 12. Otherwise, the program will be dealing with conflicting information about the baseline and produce a replot that looks like this:

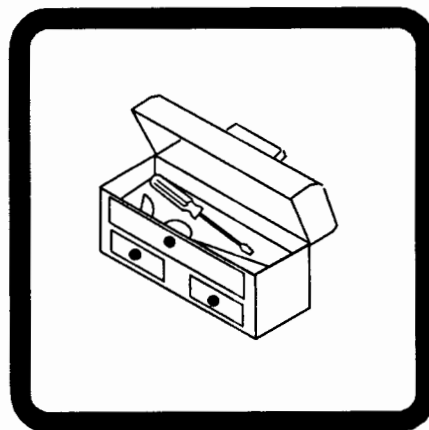


An Incorrectly Replotted Chromatogram.

This baseline is drawn incorrectly. When the baseline is drawn, all peaks must lie above the baseline. A negative peak must be inverted to be properly integrated.

Appendix

Application Program Error Messages



In this chapter....

- Error Message Index A-2
- Error Message Syntax A-5
- AD: ASDIALE Error Messages A-6
- AT: AUTO_TOP Error Messages A-12
- AS: AUTO_SKD Error Messages A-20
- FL: FLIPPER Error Messages A-28
- A2: AUTO_2CH Error Messages A-30
- F01: FILEMNGR Error Messages A-33
- Error Recovery Procedure A-37
- Application Program Files A-38

AD	(ASDIALE - Autoscheduler Dialog)	Page
----	----------------------------------	------

AD : INPUT 'Y' OR 'N'	A-6
AD : INPUT 'F' FOR FRONT, OR 'R' FOR REAR OR, INPUT 'N' FOR NONE	A-6
AD : INPUT 'E' OR 'C'	A-6
AD : INPUT BUFFER PEAK WIDTH IN RANGE [0.01-2.50]	A-6
AD : INVALID FILE EXTENTION, EXPECT - ";FILESPEC\$	A-7
AD : INVALID DISK SPEC	A-7
AD : FILE BASENAME TOO LONG	A-8
AD : INVALID FILENAME	A-8
FILENAMES\$&" - Exists, ok to overwrite [Y/*N]:	A-9
AD : FILE - ";EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE	A-9
AD : RELEASE - ";EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE	A-10
AD : FILE NAME PREFIX IS 4 CHARS MAX, RESPECIFY AT PROMPT	A-11

AT	(AUTO_TOP - Start Up)	Page
----	-----------------------	------

"VERIFYING SINGLE/DUAL CHANNEL, BASIC WORKSPACE"	
"INSTALLING/VERIFYING INET PARAMETERS"	
"SETTING BASIC SPACE, DUAL CHANNEL 7673"	
"AUTOSCHEDULER WORKFILE COMPATIBLE WITH SYSTEM"	A-12
"AT : INPUT 'F' OR 'R'" (or)	
"AT : INPUT 'R' OR 'S' OR 'Q'"	A-12
"AT : AUTOSCHEDULER WORKFILE INCOMPATIBLE WITH SYSTEM"	A-13
"AT : 5890 AND OR DICE CARD IS NOT PRESENT"	A-13
"AT : DIRECTORY M: IS TOO FULL, REMOVE FILES AND RETRY"	A-14
"AT : GET "&SEQSPEC\$&" - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE	A-14
"AT : GET "&METSPEC\$&" - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE	A-15
"AT : START - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE	A-16

"AT : FILE "&FILENAME\$&" - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE A-16

"AT : INET ACCESS - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE A-18

"AT : INET - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE A-19

"AT : UNEXPECTED - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE A-19

"SEQUENCE/RUN PREPERATION TERMINATED"

AS (AUTO_SKD - Autoscheduler Schedule)

"AS : CHAIN "&FILENAME\$&" - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE" A-20

"&FILENAME\$&" NOT SCHEDULED"

"===== END OF RUN =====" A-20

"AS : GET "&SEQSPEC\$&" - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE A-21

"AS : GET "&METSPEC\$&" - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE A-21

"AS : FILE "&FILENAME\$&" - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE A-22

"AS : WARNING - CURRENT INET TABLE DOES NOT MATCH THE VERSION THE
SEQUENCE BEGAN WITH" A-23

"AS : INET - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE A-23

"AS : INET - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE A-24

"AS : INET - INET CONFIGURATION OR INET DEVICE METHODS CHANGED
SINCE THE SEQUENCE OR RUN BEGAN" A-24

"AS : CALIB SAVE "&CALSPEC\$&" - "&EXTTEXT\$(I)&" IN LINE ";EXLINE A-24

"- CORRECT THE PROBLEM OR"
"- PRESS [CTRL][BREAK] TO TERMINATE AUTOMATION"
" RUN AUTOSCHEDULER DIALOG TO RESET M:AUTOCALL.UA1" A-25

"AS : "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE"
"UNABLE TO APPEND BARCODE TO REPORT FILE - "&RPT1SPEC\$ A-26

"AS : "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE
REPORT FILE "&RPT1SPEC\$&" LOST DUE TO RENAME EXCEPTION" A-26

"AS : UNEXPECTED - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE
"PROCESSING OF THIS RUN TERMINATED" A-27

FL (FLIPPER - Error Recovery)

"FL : FILE M:AUTOCALL.UA1 - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE	A-28
"- CORRECT THE PROBLEM OR"	
"- PRESS [CTRL][BREAK] TO TERMINATE AUTOMATION"	
" RUN AUTOSCHEDULER DIALOG TO RESET M:AUTOCALL.UA1"	A-28
"FL : UNEXPECTED - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE	
"PROCESSING OF THIS RUN TERMINATED"	A-29

A2 (AUTO_2CH - Buffered Channel Analysis)

"A2 : 5890 NOT PRESENT"	A-30
"A2 : CHAIN E:AUTO_SKD.BAS - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE	A-30
"A2 : INET - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE	A-31
"A2 : INET - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE	A-31
"A2 : INET - INET CONFIGURATION OR INET DEVICE METHODS CHANGED"	
" SINCE THE SEQUENCE OR RUN BEGAN"	A-31
"- CORRECT THE PROBLEM OR"	
"- PRESS [CTRL][BREAK] TO TERMINATE AUTOMATION"	
" RUN AUTOSCHEDULER DIALOG TO RESET M:AUTOCALL.UA1"	A-32
"A2 : UNEXPECTED - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE	
" PROCESSING OF THIS RUN TERMINATED"	A-32

FM (FILEMNGR - File Manager)

"FM: 101 INCORRECT FIRMWARE - PROGRAM TERMINATED"	A-34
"FM: 102 INSUFFICIENT DISK SPACE ON 'M:' - PROGRAM TERMINATED"	A-34
"FM: 103 CANNOT FIND PROGRAM FM_B0100.BAS - PROGRAM TERMINATED"	A-35
"FM: 104 TO START PROGRAM PRESS KEY '1'"	A-35
"FM: 105 CANNOT FIND PROGRAM FILEMNGR.BAS - PROGRAM TERMINATED	A-36
"FM: 106 LOOP IS DOWN PROGRAM TERMINATING"	A-36

A-4 Appendix

Error Message Syntax

The general error message format is:

```
"XX : [desc] "&EXTEXT$(EXTYPE)&" IN LINE ";EXLINE
```

Where : XX - module id

AD - AutoScheduler dialog	(ASDIALE)
AS - AutoScheduler schedule	(AUTO_SKD)
AT - Auto Start	(AUTYTOP)
A2 - Analyze buffered channel	(AUTO_2CH)
FL - Error Recovery	(FLIPPER)
BD - Baseline Dialog	(USER_INT.BAS)
BL - Baseline Program	(BASELINE.BAS)

[desc] - operation that generated the exception this field is optional.

EXTEXT\$(EXTYPE) is the 3396 exception message.

EXLINE is the BASIC program line where the exception occurred.

An information message is any message that does not begin with a two character prefix like AD, AS, etc.



ASDIALE Error Messages

ASDIALE is the Autoscheduler dialog program.

ERROR MESSAGES

AD : INPUT 'Y' OR 'N'

AD : INPUT 'F' FOR FRONT, OR 'R' FOR REAR OR, INPUT 'N' FOR NONE

AD : INPUT 'E' OR 'C'

AD : INPUT BUFFER PEAK WIDTH IN RANGE [0.01-2.50]

Possible Cause

You input a value that was out of range.

User Action

Re-enter input with correct value or [ENTER] key only (to accept default value (marked with an asterisk) or [SPACE] key only to accept default value.

'Y' OR 'N' corresponds to YES and NO respectively for the YES/NO prompts.

'F', 'R', 'N' corresponds to the 7673 injector to 5890 detector plumbing and is FRONT injector, REAR injector, and NO injector (e.g. single tower) respectively for the 7673 to 5890 plumbing prompts.

'E' OR 'C' corresponds to EDIT and CREATE respectively for the EDIT/CREATE prompt.

[0.01-2.50] is buffer peak width range.

ERROR MESSAGE

AD : INVALID FILE EXTENTION, EXPECT - ;FILESPEC\$

Where FILESPECS = .UA1, .UA2, or .UA3 for an Autoscheduler
workfile.
= .MET for a method file
= .SEQ for a sequence file
= .BAS for a program file

Possible Cause

User specified incorrect file extention for file type AutoScheduler
expected.

User Action

Review AutoScheduler prompt for file type expected and re-enter file spec.

ERROR MESSAGE

AD : INVALID DISK SPEC

Possible Cause

User specified invalid disk specifier. Valid disk specifiers are:
A,B,C,D,E,F,H,J,K,L,M,N,O,P,R,S,T,U,V,W,X,Y,Z.

User Action

Review input and re-enter with correct disk specifier.

ERROR MESSAGE

AD : FILE BASENAME TOO LONG

Possible Cause

User specified more than 8 characters for file name (file spec without disk spec and file extension)

User Action

Review input and re-enter with correct basename

ERROR MESSAGE

AD : INVALID FILENAME

Possible Cause

1. User specified less than 5 characters for file specification. The minimum file spec is 'n.ext' .

n is a one character file name and ext is the character file extension
2. User specified an illegal 3396B file name. A valid file name starts with a letter followed by any combination of letters, numbers, and underscores up to 8 characters long.
3. User specified an illegal file prefix. A valid prefix starts with a letter followed by any combination of letters, numbers, and underscores up to 4 characters long. A prefix with a trailing asterisk specifies renaming with the bottle Id.

User Action

Review input and re-enter with correct file specification.

ERROR MESSAGE

FILENAME\$&" - Exists, ok to overwrite [Y/*N]:

Where: FILENAME\$ is the user specified file spec to store the AutoScheduler dialog responses.

Possible Cause

AutoScheduler workfile filename you specified to store the current session responses exists.

User Action

1. Answer 'Y' to prompt to overwrite the existing workfile with the current session responses.
2. Answer 'N' to keep the existing workfile. At the 'Enter AutoScheduler filename ...' prompt, specify a different filename

ERROR MESSAGE

AD : FILE - ";EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE

Possible Cause

AutoScheduler workfile does not exist (e.g. disk not in drive)

User Action

Insert or specify the proper disk.

Possible Cause

Insufficient storage on the disk where you want to store the AutoScheduler workfile.

User Action

If storing file to a floppy drive disk and there is a disk problem, do the following:

1. Remove the disk that is full.
2. Insert a disk that is not full.
3. Respecify the same filespec at the ASDIALE prompt
4. Respecify a different filespec at the ASDIALE prompt

Possible Cause

AutoScheduler workfile (M:AUTOCALL.UA1 or user specified workfile) has been corrupted.

User Action

Wait for approximately 30 seconds to see if ASDIALE recovers automatically (ASDIALE periodically retries the operation).

NOTE: ASDIALE reprompts for filename (to edit, or to store session to)

ERROR MESSAGE

```
AD : RELEASE - ";EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE
```

Possible Cause

Internal AutoScheduler error or 3396 file system error releasing unused space at the end of the AutoScheduler workfile.

User Action

NONE; if error occurs repeatedly call HP.

ERROR MESSAGE

AD : FILE NAME PREFIX IS 4 CHARS MAX, RESPECIFY AT PROMPT

Possible Cause

1. You entered a file prefix, for Run Number file renaming, that was longer than 4 characters.
2. You entered a file prefix, for Bottle Id file renaming, that was longer than 4 characters and without a trailing asterisk.

User Action

1. Re-enter input with a file prefix of 4 characters maximum for run number file renaming.
2. Re-enter input with a file prefix terminated with an asterisk.

Note: The file name prefix must be a valid 3396B file name.

AUTO_TOP Error Messages

AUTO_TOP is the program that runs when you press **AUTO START** (Key 0).

ERROR MESSAGE

```
"VERIFYING SINGLE/DUAL CHANNEL, BASIC WORKSPACE"  
"INSTALLING/VERIFYING INET PARAMETERS"  
"SETTING BASIC SPACE, DUAL CHANNEL 7673"  
"AUTOSCHEDULER WORKFILE COMPATIBLE WITH SYSTEM"
```

Possible Cause

These AUTO_TOP start up messages inform the user what AUTO_TOP is working on.

User Action

NONE

ERROR MESSAGE

```
"AT : 7673 AutoSampler incorrect version; must be V4.3 or later"
```

Possible Cause

7673 AutoSampler controller firmware is incompatible with the HP 3396 Series II Integrator firmware.

User Action

Contact your Hewlett-Packard service representative.

ERROR MESSAGE

```
"AT : INPUT 'F' OR 'R'" (or)
"AT : INPUT 'R' OR 'S' OR 'Q'"
```

Possible Cause

You input a value that was out of range.

User Action

Re-enter input with correct value or [ENTER] key only (to accept default value (marked with an asterisk) or [SPACE] key only to accept default value.

'F' OR 'R' corresponds to Front/Rear respectively. This prompt is for mapping the live analog signal to a 7673 injector.

'R' OR 'S' OR 'Q' corresponds to RUN/SEQUENCE/QUIT respectively. This is for the START RUN/SEQUENCE OR QUIT prompt

ERROR MESSAGE

```
"AT : AUTOSCHEDULER WORKFILE INCOMPATIBLE WITH SYSTEM"
```

Possible Cause

AUTO_TOP detected at least one discrepancy between the resources the AutoScheduler workfile required and the resources that existed in the system at the time the user invoke AUTO_TOP.

User Action

Review AUTO_TOP error messages and correct.

Note: AUTO_TOP error messages are listed below and are identified with the {AUTO_TOP error message} tag.

ERROR MESSAGE {AUTO_TOP error message}

"AT : 5890 AND OR DICE CARD IS NOT PRESENT"

Possible Cause

INET is not up

User Action

1. Verify the 5890 has a DICE card (dual channel workfile only)
2. Verify INET is up

Possible Cause

5890 method is not compatible with the workfile.

User Action

Correct the method or workfile and restart AUTO_TOP

ERROR MESSAGE {AUTO_TOP error message}

"AT : DIRECTORY M: IS TOO FULL, REMOVE FILES AND RETRY"

Possible Cause

Directory M: has expanded into BASIC workspace

User Action

1. Purge unwanted/unneeded files from M:
2. Copy files from M: to a different disk, then purge files from M:

Note: Although AUTO_TOP sets a 20K BASIC workspace (at least 20K bytes must be free on M:), other APPACK programs require space on M: for temporary state files or dual channel data structures. A user should allow for this by freeing up more than the 20K bytes required by AUTO_TOP

ERROR MESSAGE {AUTO_TOP error message}

```
"AT : GET "&SEQSPEC$&" - "&EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE
```

Where : SEQSPEC\$ is the file spec for the sequence file

Possible Cause

File access error opening the sequence file.

User Action

1. Verify the sequence file exists (if the file is on a floppy, verify the floppy is in the disk drive).
2. Restart AUTO_TOP.

Note: If the sequence file does not exist then edit the workfile and specify the correct sequence file.

ERROR MESSAGE {AUTO_TOP error message}

```
"AT : GET "&METSPEC$&" - "&EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE
```

Where : METSPEC\$ is the file spec for the method file.

Possible Cause

File access error opening the method file.

User Action

1. Verify the method file exists (if the file is on a floppy, verify the floppy is in the disk drive).
2. Restart AUTO_TOP.

Note: If the method file does not exist then edit the workfile and specify the correct method file.

ERROR MESSAGE

"AT : NON-ACTIVE 7673 - SEQUENCE NOT STARTED"

Possible Cause

INET sampler control without 7673 S0 path active.

User Action

1. Make 7673 S0 path active.
2. Perform Manual Error Recovery Procedure for AUTO_TOP

ERROR MESSAGE

"AT : START - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE

Possible Cause

AUTO_TOP program error on START command or 3396 failure in executing start command.

User Action

1. Perform Manual Error Recovery Procedure for AUTO_TOP.
2. If error persists then call HP.

ERROR MESSAGE {AUTO_TOP error message}

"AT : FILE "&FILENAME\$&" - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE

Where : FILENAME\$ is M:AUTOCALL.UA1, the method file or the sequence file from the workfile.

Possible Cause

AutoScheduler workfile has become corrupted.

User Action

1. Verify the AutoScheduler workfile has not become corrupted by using the AutoScheduler to edit the workfile.
2. If the workfile is corrupt then recreate the workfile.

Possible Cause

AutoScheduler workfile (M:AUTOCALL.UA1) does not exist

User Action

1. Verify AutoScheduler workfile M:AUTOCALL.UA1 exists.
2. To use another workfile, rename workfile to M:AUTOCALL.UA1.

Possible Cause

Method/Sequence file from the AutoScheduler workfile does not exist.

User Action

1. Verify the method/sequence files are spelled properly.
2. Verify that the method/sequence files are on the correct drive.
3. Use AutoScheduler dialog to edit the workfile for the correct method/sequence file name.

Possible Cause

Program in chain list does not exist.

User Action

1. Verify the chain files are spelled properly
2. Verify the disk the chain files are stored on is inserted into the correct disk drive.
3. Use AutoScheduler dialog to edit the workfile for the correct chain file name.

ERROR MESSAGE {AUTO_TOP error message}

```
"AT : INET ACCESS - ";EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE
```

Possible Cause

1. INET loop is down due to loop break, INET device power fail, or INET device timeout.
2. INET device (5890,7673) address changed during a loop down.

User Action

1. If error is loop down then verify no loop break, and all INET devices have power; the AutoScheduler periodically issues a RECONFIGURE command to bring the loop back up.
2. During loop down do not alter INET device configuration by changing INET device wiring order.
3. Use 3396 diag "BUS TEST" to check for intermitent HPIL wiring.
4. If INET device address change then re-invoke AUTO_TOP.

ERROR MESSAGE

```
"AT : INET - "&EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE
```

Possible Cause

INET loop is down due to loop break, INET device power fail, or INET device timeout.

User Action

Verify no loop break, and all INET devices have power; the AutoScheduler periodically issues a RECONFIGURE command to bring the loop back up.

ERROR MESSAGE

```
"AT : UNEXPECTED - "&EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE
```

```
"SEQUENCE/RUN PREPERATION TERMINATED"
```



Possible Cause

AUTO_TOP program exception not explicitly trapped for; Most likely an internal AUTO_TOP program error such as value out of range.

User Action

Re-invoke AUTO_TOP; if problem persists then call HP.

AUTO_SKD Error Messages

AUTO_SKD is the Autosceduler program that chains postrun programs.

ERROR MESSAGE

```
"AS : CHAIN ";FILENAME$&" - "&EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE"  
"&FILENAME$&" NOT SCHEDULED"
```

Possible Cause

AUTO_SKD did not find the program file to chain because the program file spec contained a disk drive, but there was no disk in the drive or an incorrect disk was in the drive.

User Action

After the sequence completes, review the filenames in the workfile M:AUTOCALL.UA1 for correct spelling, and disk specification.

Note: AUTO_SKD continues scheduling with the next program in the list.

ERROR MESSAGE

```
"===== END OF RUN ====="
```

Possible Cause

AutoScheduler prints this message at the end of run.

User Action

None.

ERROR MESSAGE

```
"AS : GET "&SEQSPEC$&" - "&EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE
```

Where: SEQSPEC\$ is the file spec for the sequence file.

Possible Cause

1. Disk with the sequence file is not in the disk drive.
2. User removed the disk to insert a disk for report/data storage.

User Action

1. Terminate the sequence/run by pressing [CTRL][BREAK]
2. Perform Manual Error Recovery Procedure for AUTO_SKD.
3. Edit the workfile for the correct sequence file, or write sequence file to same disk where report/data is stored.

ERROR MESSAGE

```
"AS : GET "&METSPEC$&" - "&EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE
```

Where: METSPEC\$ is the file spec for the method file.

Possible Cause

1. Disk with the sequence file is not in the disk drive.
2. User removed the disk to insert a disk for report/data storage.

User Action

1. Put the correct disk in the disk drive. AUTO_SKD periodically retries the operation so, no further user action is necessary to recover.
2. Terminate the sequence/run by pressing [CTRL][BREAK]
3. Perform Manual Error Recovery Procedure for AUTO_SKD
4. Edit the workfile for the correct sequence file, or write sequence file to same disk where the report/data is stored.

ERROR MESSAGE

```
"AS : FILE "&FILENAME$&" - "&EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE
```

Possible Cause

1. 3396 File system error
2. AutoScheduler workfile (M:AUTOCALL.UA1) has been corrupted.

User Action

1. Perform Manual Error Recovery Procedure for AUTO_SKD
If the problem persists then call HP.
2. Terminate the sequence/run by pressing [CTRL][BREAK]
3. Wait for approximately 30 seconds to see if AUTO_SKD recovers automatically (AUTO_SKD periodically retries the operation)

ERROR MESSAGE

"AS : WARNING - CURRENT INET TABLE DOES NOT MATCH THE VERSION THE SEQUENCE BEGAN WITH"

Possible Cause

1. An instrument on the INET loop failed to come up after a RECONFIGURE
2. During a loop down, an INET/HPIL device was moved to a new address, or was deleted, or was powered down after AUTO_TOP started the sequence.

User Action

1. During a loop down do not alter INET device configuration by changing INET device wiring order.
2. Use 3396 diag "BUS TEST" to check for intermittent HPIL wiring.

Note: This is a warning message and AUTO_SKD continues chaining postrun programs specified in the workfile M:AUTOCALL.UA1

ERROR MESSAGE

"AS : INET - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE

Possible Cause

INET loop is down due to loop break, INET device power fail, or INET device timeout.

User Action

Verify no loop break, and all INET devices have power; AUTO_SKD periodically issues a RECONFIGURE command to bring the loop back up.

ERROR MESSAGES

```
"AS : INET - "&EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE
```

```
"AS : INET - INET CONFIGURATION OR INET DEVICE METHODS CHANGED  
SINCE THE SEQUENCE OR RUN BEGAN"
```

Possible Cause

INET device (5890, 7673) address changed during a loop down.

User Action

1. Wait for approximately 30 seconds to see if AUTO_SKD recovers automatically (AUTO_SKD periodically retries the operation)
2. Terminate the sequence/run by pressing [CTRL][BREAK]
3. Perform Manual Error Recovery Procedure for AUTO_SKD
4. If the problem persists then call HP

ERROR MESSAGE

```
"AS : CALIB SAVE "&CALSPEC$&" -"&EXTTEXT$(I)&" IN LINE ";EXLINE
```

Where: CALSPEC\$ is the temporary calibration file spec

Possible Cause

1. Disk that method file is on is full
2. Directory M: is full
3. AUTO_SKD program error or 3396 file system error

User Action

1. Wait for approximately 30 seconds to see if AUTO_SKD recovers automatically (AUTO_SKD periodically retries the operation)
2. Terminate the sequence/run by pressing [CTRL][BREAK]
3. Perform Manual Error Recovery Procedure for AUTO_SKD
4. Remove unwanted files (and copy files not needed for this run/sequence to another disk) from the disk with the method file and use PACK command to recover free disk space.
5. Re-invoke AUTO_TOP to start sequence/run

Note : AUTO_SKD stores the temporary calibration file on the the same disk as the method file. If there is no specific method file then AUTO_SKD stores the calibration file on M: director.

ERROR MESSAGE

```
"- CORRECT THE PROBLEM OR"  
"- PRESS [CTRL][BREAK] TO TERMINATE AUTOMATION"  
" RUN AUTOSCHEDULER DIALOG TO RESET M:AUTOCALL.UA1"
```

Possible Cause

Instructions AUTO_SKD prints to the user on an error that AUTO_SKD cannot recover from.

User Action

This message follows an error message that details the error. See the particular error message for USER ACTION.

ERROR MESSAGE

```
"AS : "&EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE"  
      "UNABLE TO APPEND BARCODE TO REPORT FILE - "&RPT1SPEC$
```

Where: RPT1SPEC\$ is the report file spec.

Possible Cause

Disk for report file storage is full.

User Action

NONE

Note: This affects stored report only. While it has no impact on the AutoScheduler completing the sequence, the 3396 firmware will not start the next run when the report storage disk is full.

ERROR MESSAGE

```
"AS : "&EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE  
      REPORT FILE "&RPT1SPEC$&" LOST DUE TO RENAME EXCEPTION"
```

Where: RPT1SPEC\$ is the report file spec.

Possible Cause

Disk for report file storage is full.

User Action

NONE

Note: This affects stored report only. While it has no impact on the AutoScheduler completing the sequence, the 3396 firmware will not start the next run when the report storage disk is full.

ERROR MESSAGE

```
"AS : UNEXPECTED - "&EXTTEXT$(EXTYPE)&" IN LINE  ";EXLINE  
"PROCESSING OF THIS RUN TERMINATED"
```

Possible Cause

AUTO_SKD program exception not explicitly trapped for; Most likely
AUTO_SKD program error such as value out of range.

User Action

1. Invoke error recovery procedure for AUTO_SKD
2. If problem persists call HP

FLIPPER Error Messages

FLIPPER assists error recovery when an Autoscheduled program traps a fatal error.

ERROR MESSAGE

```
"FL : FILE M:AUTOCALL.UA1 - "&EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE
```

Possible Cause

1. 3396 File system error
2. AutoScheduler workfile (M:AUTOCALL.UA1) is corrupted.

User Action

1. Wait for approximately 30 seconds to see if FLIPPER recovers automatically (FLIPPER periodically retries the operation)
2. Terminate the sequence/run by pressing [CTRL][BREAK]
3. Perform Manual Error Recovery Procedure for FLIPPER
4. If the problem persists then call HP

ERROR MESSAGE

```
"- CORRECT THE PROBLEM OR"  
"- PRESS [CTRL][BREAK] TO TERMINATE AUTOMATION"  
" RUN AUTOSCHEDULER DIALOG TO RESET M:AUTOCALL.UA1"
```

Possible Cause

Instructions that FLIPPER prints to the user on an error that FLIPPER cannot recover.

User Action

This message follows an error message that details the error. See the particular error message for USER ACTION.

ERROR MESSAGE

```
"FL : UNEXPECTED - "&EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE  
"PROCESSING OF THIS RUN TERMINATED"
```

Possible Cause

FLIPPER program exception not explicitly trapped for; Most likely FLIPPER program error such as value out of range.

User Action

1. Invoke error recovery procedure for FLIPPER
2. If problem persists call HP

Note : This terminates processing on the current run, but does not terminate the sequence.

AUTO_2CH Error Messages

AUTO_2CH is the Dual Channel program.

ERROR MESSAGE

"A2 : 5890 NOT PRESENT"

Possible Cause

There is no 5890 in the INET loop.

User Action

NONE

Note : the consequence is the analyze dice buffer operation is ignored.

ERROR MESSAGE

"A2 : CHAIN E:AUTO_SKD.BAS - "&EXTTEXT\$(EXTYPE)&" IN LINE ";EXLINE

Possible Cause

Directory for E: has been corrupted.

User Action

1. Wait for approximately 30 seconds to see if AUTO_2CH recovers automatically (AUTO_2CH periodically retries the operation).
2. Terminate the sequence/run by pressing [CTRL][BREAK].
3. Perform Manual Error Recovery Procedure for FLIPPER.
4. If the problem persists then call HP

ERROR MESSAGE

```
"A2 : INET - "&EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE
```

Possible Cause

INET loop is down due to loop break, INET device power fail, or INET device (5890, 7673) address changed during a loop down.

User Action

1. Verify no loop break, and all INET devices have power; AUTO_2CH periodically issues a RECONFIGURE command to bring the loop back up.
2. Use 3396 diag "BUS TEST" to check for intermittent HPIL wiring.
3. During a loop down do not alter INET device configuration by changing INET device wiring order.

ERROR MESSAGE



```
"A2 : INET - "&EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE
```

```
"A2 : INET - INET CONFIGURATION OR INET DEVICE METHODS CHANGED"  
" SINCE THE SEQUENCE OR RUN BEGAN"
```

Possible Cause

INET device (5890, 7673) address changed during a loop down.

User Action

1. Wait for approximately 30 seconds to see if AUTO_2CH recovers automatically (AUTO_2CH periodically retries the operation).
2. Terminate the sequence/run by pressing [CTRL][BREAK].
3. If you are using the AUTO_2CH with the AutoScheduler, perform Manual Error Recovery Procedure for AUTO_2CH.
4. If the problem persists then call HP.

ERROR MESSAGE

```
"- CORRECT THE PROBLEM OR"  
"- PRESS [CTRL][BREAK] TO TERMINATE AUTOMATION"  
" RUN AUTOSCHEDULER DIALOG TO RESET M:AUTOCALL.UA1"
```

Possible Cause

Instructions AUTO_2CH prints to the user on an error that AUTO_2CH cannot recover from.

User Action

This message follows an error message that details the error. See the particular error message for USER ACTION.

ERROR MESSAGE

```
"A2 : UNEXPECTED - "&EXTTEXT$(EXTYPE)&" IN LINE ";EXLINE  
" PROCESSING OF THIS RUN TERMINATED"
```

Possible Cause

AUTO_2CH program exception not explicitly trapped for; Most likely AUTO_2CH program error such as value out of range.

User Action

1. If you are using the AUTO_2CH with the AutoScheduler invoke error recovery procedure for AUTO_2CH.
2. If you are using AUTO_2CH in AUTOCALL or KeyPress mode re-invoke AUTO_2CH.
3. For both cases, if problem persists then call HP.

FILEMNGR Error Messages

FILEMNGR is the File Manager program that enables you to perform copy, delete, list, etc. operations on your files.

Error Message Types

On an error, the FILEMNGR program returns with one of three possible error message formats:

"FM: 10X"

The File Manager Program stops.

"UNABLE TO EXECUTE:"

The file manager operation is interrupted and the FM> prompt returns.

"WARNING:"

The file manager operation continues uninterrupted.

Where:

FM :	File manager
10X	error message number
.	error message text

ERROR MESSAGE

"FM: 101 INCORRECT FIRMWARE - PROGRAM TERMINATED"

Possible Cause

Integrator firmware incompatible with application program firmware.

User Action

Contact your HP service representative.

ERROR MESSAGE

"FM: 102 INSUFFICIENT DISK SPACE ON 'M:' - PROGRAM TERMINATED"

Possible Cause

Not enough space on 'M:'

User Action

Delete or transfer unneeded files.

ERROR MESSAGE

"FM: 103 CANNOT FIND PROGRAM FM_B0100.BAS - PROGRAM TERMINATED"

Possible Cause

Program was being run on the M: disk and now cannot be accessed. File may have been accidentally deleted, the disk drive may be faulty, or the disk may have been changed.

User Action

Check the disk for the file and check the drive. Contact your HP service representative.

ERROR MESSAGE

"FM: 104 TO START PROGRAM PRESS KEY '1'"

User Action

Press key 1.

ERROR MESSAGE

"FM: 105 CANNOT FIND PROGRAM FILEMNGR.BAS - PROGRAM TERMINATED"

Possible Cause

Program was being run on the M: disk and now cannot be accessed. File may have been accidentally deleted, the disk drive may be faulty, or the disk may have been changed.

User Action

Check the disk for the file and check the drive. Contact your HP service representative.

ERROR MESSAGE

"FM: 106 LOOP IS DOWN PROGRAM TERMINATING"

Possible Cause

Cable problem or device on loop powered down or defective.

User Action

Check cables and devices on the loop.

Error Recovery Procedure

When an autoscheduled run or sequence fails, an error message is printed.

1. Look up the possible cause and user action for the error message(s).
2. Press Key 0 to start error recovery.
3. Press Key 0 again to start another sequence/run.

Application Program Files

<u>General Application Progs.</u>	<u>Dual Channel</u>	<u>LC Control</u>
CFG_KEYS.UD1	CFG_KEY	CFG_KEYS.UD1S.UD1
FILEMNGR.BAS	FILEMNGR.BAS	
FM_Bxxxx.BAS	FM_Bxxxx.BAS	
BATCHREP.BAS	BATCHREP.BAS	BATCHREP.BAS
PLCALC96.BAS	PLCALC96.BAS	PLCALC96.BAS
	BARMETH.BAS	
SEQCHAIN.BAS	SEQCHAIN.BAS	
USER_INT.BAS	USER_INT.BAS	USER_INT.BAS
BASELINE.BAS	BASELINE.BAS	BASELINE.BAS
ASDIALE.BAS	ASDIALE.BAS	
AUTO_SKD.BAS	AUTO_SKD.BAS	
FLIPPER.BAS	FLIPPER.BAS	
	AUTO_2CH.BAS	
AUTO.TOP.BAS	AUTO.TOP.BAS	
AUTONAME.BAS	AUTONAME.BAS	AUTONAME.BAS
DUMPLC.BAS	DUMPAUTO.BAS	DUMPLC.BAS
		SMPTBL5.DAT
		LC_HELP.DAT
		LC_START.BAS

LC_MAIN.BAS

LC_HPIB.BAS

LC_ALISA.BAS

LC_PRINT.BAS

LC_ASDIA.BAS

LC_ASKD.BAS

A

- Abort, 2-8, 2-10, 3-11
- Accessories, 1-6
- Application Programs
 - Baseline, 8-2
 - Key Assignments, 1-3
 - List of, 1-2
 - Overview, 1-5
 - Running, 1-6
 - Using, 1-2
- Area Axis, Maximum, 7-5
- ASSIGN, 8-22
- Asterisk, 3-8, 4-2
- AUTO_TOP, 2-8, 3-11, 8-6, 8-22
- AUTOCALL Program, 8-22
- Auto Start, 1-5, 2-8, 3-11, 8-6
- Autoname, 1-5, 2-2, 3-2, 8-5
 - Example, 3-12
 - Renaming Formats, 3-2
 - Prefix, 3-2
 - Sample Table, 3-2
 - Vial and Injection #, 3-2
 - Scheduling Postrun, 2-4
- Autoscale, 7-5
- Autoscheduler, 1-5, 8-3
 - Dialog, 2-3, 3-3
 - Example
 - Editing, 2-15
 - Scheduling Autoname, 2-9
 - Introducing, 2-2
 - Method and Sequence Assignments, 2-2, 2-4
 - No Method Assignment, 2-5, 3-5, 3-6, 3-7, 3-8
 - Override Method, 2-5, 3-4, 3-6, 3-7, 3-8
 - Restarting, 2-18
 - Running Baseline, 8-5
 - Sequence Chaining, 2-16
 - Stopping, 2-18

- Warning Message, 2-5, 3-5, 3-6, 3-7, 3-8

- Autoscheduler Dialog, 2-2
 - Starting, 2-3, 3-3
- Autoscheduler File, 2-2
 - Creating, 2-4
 - Creating and Storing, 2-16
 - Default, 2-6
 - Editing, 2-11
 - Multiple Files, 2-16
 - Naming, 2-6
 - Recalling, 2-17
 - Renaming, 2-7, 2-17
 - Valid Names, 2-6, 2-13
- Autoscheduler Program, 2-2
 - Running, 2-8

B

- BASIC, 8-3
 - CHAIN Statement, 2-7
- BASIC Programs, 2-7
 - Example, 4-5
 - FM Batch File, 4-5
- Bar Coded Methods, 1-6
- Baseline, 1-6, 3-10, 8-2
 - as an AUTOCALL Program, 8-22
 - Example Preparing, 8-4
 - How it works, 8-2
 - Information, 8-2, 8-10
 - Plotting, 8-1
 - Preparing, 8-4
 - Running, 8-5
 - Running Manually, 8-10
 - Examples, 8-19
 - Replotted Chromatogram and Baseline, 8-17
 - Replotting Raw Data as Filtered, 8-15
 - Replotting Raw Data as Source, 8-16
 - Specifying a Method File, 8-12
 - Specifying Plotting Parameters, 8-13
 - Specifying Signal File, 8-11
 - Starting the Dialog, 8-11

Using Current Method and Signal,
8-11

Batch Reprocess, 1-5, 5-2

Calibration File, 5-16

Editing a File Entry, 5-10

Editing Calibration Options, 5-4, 5-5

Example, 5-9, 5-15

Starting the Program, 5-6, 5-13

with Calibration Option Params, 5-3, 5-4

with Sequence Sample Table, 5-2, 5-11

BREAK Key, 6-6

Bunched Data, 8-4

Bunched vs. Raw Data, 8-4

C

Cal#, 7-3

Calibration Curve, 7-2

Exiting the Program, 7-4

ISTD Peaks, 7-7

Calibration File, 5-16

Reprocessing With, 5-16

Specifying, 7-3

Storing, 5-16

Calibration Information, 5-7, 6-2

Editing, 5-7

Storing, 5-6, 5-13, 6-2

Updated, 6-2

Calibration Number, 7-3

Calibration Options, 5-4

Editing, 5-4, 5-5

Selecting, 5-7

Calibration Updating, 5-2, 5-6

CHAIN Statement, 2-7, 4-5

Chaining Sequences, 1-6, 2-16, 6-2

Chromatogram

Original, 8-7, 8-10

Replotted, 8-8

COPY, 4-6

Colon, 2-11

Copying Files, 4-6

Counter, 3 digit, 3-6

Curve Fit, 7-5

D

Data

Bunched, 8-4

Bunched vs. Raw, 8-4

Data Files, Batch Reprocessing, 5-2

DELETE, 4-8

Default Directory, 4-5

Deleting Files, 4-8

DIRECTORY, 4-10

Directory, Default, 4-5

Dual Channel, 1-2, 1-3, 1-4, 1-6, 2-2

Bar Coded Methods, 1-6

Baseline, 8-5

Sequence Chaining, 6-2

E

Edit Prompt, 2-11

Editing, Autoscheduler File, 2-11

Quit, 2-11, 2-13

Example, Autaname, 3-12

F

File Manager, 1-5, 4-2

Auto Mode, 4-5

Basic Program, 4-5

Batch File, 4-5

COPY, 4-6

DELETE, 4-8

Default Directory, 4-5

DIRECTORY, 4-10

ERASE, 4-8

FORMAT, 4-12
INIT, 4-12
LIST, 4-13
Prompt Mode, 4-4
PURGE, 4-8
RENAME, 4-16
Starting, 4-3
Syntax Mode, 4-4

File Name
Extensions, 2-6, 2-13
Prefix, 2-4

Files
Overwriting, 3-2
Signal and Processed Peak, 8-2, 8-4,
8-10, 8-12

FORMAT, 4-12

Formatting a Disk, 4-12

Function Key Assignments
Dual Channel, 1-4
General Application Programs, 1-4
LC Control, 1-4

Function Keys
Assignments, 1-3
Key [0], 2-8, 3-11, 8-6, 8-22
Key [1], 4-3
Key [3], 7-2
Key [6], 6-3
Key [9], 2-3, 3-3, 8-5
Using, 1-6

G

General Application Programs, 1-3, 1-4

H

H: drive specifier, 8-2
Horizontal Axis, 7-4
Host Device, 8-2
HP 1050 LC Control, 1-2, 1-3, 1-4, 1-6

I

Integration Functions, 8-23

L

LIST, 4-13
Listing a Directory, 4-10
Listing a File, 4-13

M

Managing Files, 4-1
Method, 5-16, 6-4
Current Active, 2-5, 3-5, 3-6, 3-7, 3-9
Default, 6-4
Specifying, 7-3
Storing, 5-16
Method Parameters, 8-2

N

Negative Peaks, 8-23

O

Option 2, 8-4, 8-10
Options, 1-6
Original Chromatogram, 8-7, 8-10
Overwriting Files, 3-2

P

Peak Information, 8-10
Peak Width, 8-15
Peaks, Negative, 8-23
Plot Baseline, 1-6

- Plot Calibration, 7-2
 - Exiting the Program, 7-4
 - from Calib. File, 7-2
 - from Current Method, 7-2
 - from Method File, 7-2
 - ISTD Peaks, 7-7
 - Starting the Program, 7-2
- Plot Calibration Curve, 1-6
- Plotting, a Baseline, 8-1
- Plotting a Calibration Curve, 7-1
- Plotting ISTD Peaks, 7-7
- Plotting Parameters, 7-2
 - Autoscale, 7-5
 - Choosing, 7-5
 - Curve Fit, 7-5
 - Default Values, 7-2, 7-4
 - Maximum Area Axis, 7-5
- Postrun Programs, 1-5, 2-4, 6-5, 8-2, 8-22
 - Autoname, 3-10
 - Baseline, 8-5, 8-6
 - Default Name, 6-5
 - Deleting, 2-12
 - Scheduling, 2-1
- Prefix
 - and asterisk, 3-8
 - appended counter, 3-6, 3-8
 - Data File Name, 2-4
 - File Name, 3-2
 - Limits, 2-4
 - Valid Characters, 2-4
- Prerun Tests, 2-8, 3-11, 8-6, 8-22

R

- RENAME, 4-16
- Renaming a File, 4-16
- Renaming Files, 3-4
 - Automatic, 1-5, 3-2
 - Signal, Processed Peak, Report, 3-2
 - using prefix and Run #, 3-6
 - using prefix, Run #, and Inj #, 3-8

- using Sample Names, 3-4
- Renaming Result Files, 3-2
- Replotted Chromatogram, 8-8
 - Characteristics, 8-9
- Reprocessing Data Files, 5-1
- Restarting a Run or Sequence, 2-18
- Restarting a Sequence Chain, 6-6
- Run Data Storage Parameters, (Option 2), 8-4, 8-10
- Run Number, 3-2
- Running an Application Program, 1-6
- Running Baseline
 - From BASIC, 8-3
 - Manually, 8-3
 - Using Autoscheduler, 8-3

S

- Sample Information, 5-7, 5-11
- Sample Table, 3-2
- Scheduling Postrun Programs, 2-1
 - Autoname, 3-3, 3-10
 - Baseline, 3-10
 - User Programs, 2-7
- Sequence, 6-4
 - Default, 6-4
- Sequence Chaining, 1-6, 2-16, 6-2
 - Calibration Information, 6-2
 - Dual Channel, 6-2
 - Requirements, 6-2
 - Restarting, 6-6
 - Results, 6-7
 - Running, 6-3
 - Running Samples, 6-6
 - Stopping, 6-6
- Sequence Sample Table, 5-11
 - Editing, 5-11
- Skip Perforations, 8-15, 8-16
- Start Time, 8-12
- Starting
 - Autoscheduler Dialog, 2-3, 3-3

Run or Sequence, 2-8, 3-11, 8-6

Stop Time, 8-12

Stopping a Run or Sequence, 2-18

Stopping a Sequence Chain, 6-6

T

Time, Start and Stop, 8-12

Top-of-form, 8-15, 8-16

V

Vertical Axis, 7-4

W

Wildcard, 4-2

Manual Part No. 03396-90305
Printed in U.S.A. (June 1990)



HEWLETT
PACKARD