HP Service Manager

For the Windows®, HP-UX, AIX, Linux and Solaris Operating Systems

Software Version: 7.00

Report Writer Guide

Document Release Date: October 2007
Software Release Date: October 2007

Legal Notices

Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notices

Trademark Notices

Java™and all Java based trademarks and logos are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries.

Microsoft® and Windows® are U.S. registered trademarks of Microsoft Corporation.

Oracle® is a registered US trademark of Oracle Corporation, Redwood City, California.

UNIX® is a registered trademark of The Open Group.

Documentation Updates

This manual's title page contains the following identifying information:

- Software version number, which indicates the software version
- Document release date, which changes each time the document is updated
- Software release date, which indicates the release date of this version of the software

To check for recent updates, or to verify that you are using the most recent edition of a document, go to:

www.hp.com/go/hpsoftwaresupport

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

Support

Please visit the Hewlett-Packard Software support web site at:

http://www.hp.go/hpsoftwaresupport

This web site provides contact information and details about the products, services, and support that HP offers.

HP online software support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valuable support customer, you can benefit by using the support site to:

- Search for knowledge documents of interest
- Submit enhancement requests online
- Download software patches
- Submit and track progress on support cases
- Manage a support contract
- Look up HP support contacts
- Review information about available services
- Enter discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract. To find more information about access levels, go to:

h20230.www2.hp.com/new_access_levels.jsp

To register for an HP Passport ID, go to:

h20229.www2.hp.com.passport-registration.htm

Contents

Introducing Report Writer

Welcome to the HP Service Manager Report Writer Guide. Report Writer is a component of the HP Service Manager toolkit. This guide tells you how to run existing reports and create new reports using Report Writer.

This guide contains information on:

What you need to know

To run Report Writer reports, you need a working knowledge of your HP Service Manager system. To create new Report Writer reports you need a working knowledge of your DBMS, HP Service Manager applications and utilities.

- For information about a particular RDBMS, refer to the documentation for your database.
- For database configuration information, refer to the *HP Service Manager Installation Guide*.
- For information about HP Service Manager administration and configuration, and customizing HP Service Manager, refer to the HP Service Manager Help.

1

Report Writer Basics

Report Writer is a component of the HP Service Manager Tailoring tools. You can use it to query for existing reports, and to create simple or complex reports that you can modify at any time.

Overview

Report Writer enables you to define selection, totaling, and report form criteria to create listings from one or more database files, using one database file as the primary file. The reports may be simple or complex, and can be modified at any time to add complexity or clarify details. Report Writer allows for complete user-definition.

You can base a report on one or more database tables. If you use several tables, you will need to specify a primary file. You can define the data selection and totaling criteria as well as the forms used to display the report.

How do I access a report?

To access an existing a report using Report Writer

1 Open Report Writer.

- Open Tailoring > Report Writer.
- Type rw on the HP Service Manager command line and press Enter.

The Report Writer Entry form (report.prompt.rw) opens.

2 Select one of the following options.

- Click Search or press Enter without specifying any values, to pull up a list of existing report records.
- Type an existing report name or primary file name and click Search or press Enter, to find reports with that match your search criteria.

  If the specified query produces only one record, that report record opens on the Report Maintenance form.

  If the specified query selects more than one record, Report Writer displays a list of report records. Scroll through the list. Place your cursor on any record and double-click to select the record.

3 Click Back to exit Report Writer.

The Report Maintenance form

When you open an existing report, Report Writer displays it in the Report Maintenance form (*report)*. The fields in this form are described in the HP Service Manager field help. To view the help for a field, put your cursor in the field and press Ctrl+H or select Help > Help on Field.

The available options may vary depending on the preferences you have selected, the record you select, and your permissions.

Button	Option	Description
	Update	Saves changes to the current record.
	Back	Returns to the previously displayed form.
	Delete	Deletes the currently displayed query record.
	Run	Opens the Run Report Exerciser, enabling you to run a report in the foreground or background. It saves new reports and modifications made to existing reports. For more information, see Running Reports on page 19.
	Previous	Displays the previous report on the list.
	Next	Displays the next report on the list.
	Edit	Opens the Report Maintenance Editing form, enabling you to edit the report.

Button	Option	Description
	View Spooled Reports	Opens the spoolheader form, enabling you to view spooled reports. For more information, see Viewing reports on page 23.
	Forms Designer	Opens Forms Designer, enabling you to edit the form for the report. For more information, refer to the HP Service Manager Help.
	Create RAD	Opens the RAD Editor, enabling you to create or edit RAD code for the report.
	Maintenance Schedule	Open the form, enabling you to modify the current schedule for this report. For more information, see Viewing and editing report schedules on page 22.
	Close Application	Closes the current application.

How do I copy or rename reports?

To copy or rename reports

1. Access the report.
   For this example, open the *ocml.category.print* report.

2. Click Edit to access the edit functions of Report Writer.

3. Open Options > Copy/Rename.
   The Report Writer Entry form opens with the current name of the report in the Name field.

4. Type new report name over the existing name in the Name field. This must be a unique name.

5. Type the new report's title in the Title field.

6 Continue with one of the following options.

Button	Option	Result
	Copy	Creates a copy of the report using a different name. This action copies all definitions from the current record to the new report. If you make any changes to the fields, Report Writer copies the edited version to the new report. Report Writer does not change the existing definition during the copy process. Although reports can share forms, Report Writer does not copy the forms defined in the original report.
	Rename	Renames the current report. This action changes only the report name and report title. All other definitions for the report remain unchanged.
	Cancel	Cancels the procedure and return to the Report Maintenance form. This cancels all actions. The original report remains unchanged.

How do I delete reports?

To delete reports

1 Access the report.
For this example, open the *ocml.category.print* report.

2 Click Delete to delete the report.
The Report Deletion (*report.prompt.delete*) form opens.

3 Continue with one of the following Delete options.

- Select Abort Del to end the delete process and exit to the report form.
- Select Rpt Record to delete only the report record.
- Select Rpt Fmt to delete the report record and its report forms.
- Select All to delete the report record, report forms, and all associated application panels. This option is only available for manual reports.

Note: When you delete report forms, be sure that the forms defined in this report are not required in any other report that is used.

How do I create a new report?

To create a new report

1 Open Tailoring > Report Writer.
– OR–
Type rw on a HP Service Manager command line and press Enter.
The Report Writer Entry form opens.

2 Type a unique name for the new report in the Report field. Do not use special characters other than "." or blank spaces.

For this example name the report, problem.category.report.

Note: Use the text before the first "." to indicate the primary file for the report. If there are no ".", HP Service Manager does not associate a primary file with the report.

For example, if you name the report problem.category.report, HP Service Manager assumes that *problem* is the name of the primary file. If you type problemcategory without a separating ".", Report Writer does not make that assumption.

3 Type the name of the primary file for the report.

4 Click Create New Report.

HP Service Manager checks to see if the report form already exists.

- If the report form already exists, Report Writer displays it in the Report Maintenance form to enable you to make changes, or copy data to create a new report.
- If the report form does not exist, Report Writer displays the new report in the Report Maintenance form and populates the Name, Primary File, Header, and Details fields based on the data you entered.

5 Fill in the fields and click OK. For more information, see The Report Maintenance form on page 12 and The Report Maintenance Editing form on page 16.

Note: To set the width of a report, complete the Page Width field of the Client Printing structure in the user's operator record. For more information, refer to the HP Service Manager Help.

The maximum width of a report is 132 characters. If the forms defined for a report exceed this limit, Report Writer generates them with the specified width. However, when passing the report to the printer, it truncates them to 132 characters. You can change this setting in the *config* record for the printer used to print the report.

6 Create the header and detail forms for the report, if they do not already exist. For more information, see How do I create or edit report forms? on page 32.

The Report Maintenance Editing form

When you create a new report, Report Writer displays Report Writer displays it in the Report Maintenance form (report.maint). The fields in this form are described in the HP Service Manager field help. To view the help for a field, put your cursor in the field and press Ctrl+H or select Help > Help on Field.

The available options may vary depending on the preferences you have selected, the record you select, and your permissions.

Button	Option	Description
	OK	Saves the report and returns you to the previous screen.
	Cancel	Cancels any changes and returns you to the previous screen.
	Run	Opens the Run Report Exerciser, enabling you to run a report in the foreground or background. It saves new reports and modifications made to existing reports. For more information, see Running Reports on page 19.
	Forms Designer	Opens Forms Designer, enabling you to edit the form of a report. For more information, refer to the HP Service Manager Help.
	Set Query	Opens the Report Query Maintenance screen, enabling you to edit or define the primary query for the selected report. For more information, see Creating Query forms for reports on page 33.

Button	Option	Description
	Totals	Opens the Report Totals screen, to enable you to define totals parameters. For more information, see Using initial forms with reports on page 38.
	Copy/Rename	Enables you to create a new record by copying an existing record and giving it a new name. For more information, see How do I copy or rename reports? on page 13.

2

Running Reports

Running reports in foreground

You can run your report in the foreground, or schedule it for background processing. When you run a report in the foreground the user's session and terminal are dedicated to the task until the report has completed.

How do I run a report in the foreground?

To run a report in the foreground

1. Access the report you want to run. See How do I access a report? on page 11.
2. When you have access to the report form, check the information to ensure that it is correct. Click Edit to make any necessary modifications.
3. Click Run to run the report.
4. From the Run Report Exerciser form, you can modify the summary or detail and Primary File Query definitions.
   a. The Print Report After Spooling field defaults to true (yes). Change this to false (no).
   b. The Background field defaults to true (yes). Change this to false (no).
   - If you leave the default set to true, the report will run at a set time in the background processor.
   - If you change the default setting to false, Report Writer schedules the report to pass to the printer and print immediately after generating it.

c Click View Spooled Reports. The spoolheader form opens, which enables you to view the report output online.

d Click End to exit.

Background Processing

When you schedule a report to run in the background, a simulated user session within the HP Service Manager system generates the report.

The default background processor (report), starts when HP Service Manager starts and processes all reports. Report Writer adds information about the report to the schedule table. The report background processor scans the schedule table every 60 seconds (the default scan interval), for any records whose scheduled time has elapsed and whose class is defined as report. When it finds a record, the background processor performs all functions necessary to generate the report to the spool and spoolheader tables. You can schedule reports to run in the future and specify a repeat interval. For example, you can schedule a report to run once every few hours, once a day, or once a week.

How do I run a report in the background?

To schedule a report for background processing

1 Access a report, following the procedures discussed in How do I access a report? on page 11. For this example, access the Problem Response Analysis by Assignment report.

2 From the Report Maintenance form, ensure that all the information about the report is correct. To modify any information, click Edit and make the necessary changes.

3 When you are finished editing the report, click Run to schedule the report for background processing.

The Run Report Exerciser form opens.

4 Click Summary to print a summary report.
– OR –
Click Detail to print a detailed report.

5 If necessary, modify the Primary File Query field definitions.

6 Select one of the following print options.

Select (check) Print to print the report when it finishes spooling. Report Writer prints the report immediately after generating it.

Leave the field blank (unchecked) to only spool the report. The report remains in the spool table until you delete it schedule it to print.

– OR –

Select (check) Background to print the report in the background when it finishes spooling. You must schedule the report to run at a particular time (defined in the next screen sequence) in a background processor.

Leave the field blank (unchecked) to print the report in the user's session. To learn more about running reports in a user's session, see Running reports in foreground on page 19.

7 Type the number of lines per page in the Lines Per Page field that you would like printed on the report. Otherwise, it will default to the original settings in the report form.

8 Click Run.
The Schedule a Report (*report.prompt.sch1*) form opens.

9 Specify all the necessary values to generate the report.

10 Click Schedule.

HP Service Manager returns you to the Report Maintenance (report) form and displays the following message in the status bar: "Approx. time of exec: (00: 00: 00) for report: (name of report)."

A record in the schedule table now contains all the pertinent run information.

11 Press Enter to erase the message and return to Ready.

12 Open Option > Maintenance Schedule to view the schedule record. For more information, see Viewing and editing report schedules on page 22.

13 Open Options > View Spooled Reports to view the report. For more information, see How do I view a report online? on page 24.

The Run Report Exerciser form

When run a report, Report Writer displays your options in the Run Report Exerciser form (report.prompt.exer). The fields in this form are described in the HP Service Manager field help. To view the help for a field, put your cursor in the field and press Ctrl+H or select Help > Help on Field.

The available options may vary depending on the preferences you have selected, the record you select, and your permissions

Button	Option	Description
	Run	Opens the Run Report Exerciser, enabling you to run a report in the foreground or background. It saves new reports and modifications made to existing reports.
	Back	Returns to the previously displayed form.
	Close Application	Closes the current application.

Viewing and editing report schedules

When you schedule a report for background processing, Report Writer adds it to the schedule table with a scheduled class of report. The schedule definition remains in effect until the background processor processes the report, or until you delete the record from the schedule table.

When the background processor begins processing the report, it changes the Class field from report to blank, and updates the Status field to application running. While both of these conditions exist, the background processor is actively processing the report.

If you specify a repeat interval in the schedule record, Report Writer uses the same schedule record to re-define when the report should be spooled again. Report Exerciser (the application called by the background processor) takes the original expiration time and adds the repeat interval to it, updates the status to re - scheduled, and changes the application name back to its original setting.

How do I edit report schedules?

To view and edit a report schedule

1. Access a report that is currently scheduled to run, following the procedures discussed in How do I access a report? on page 11.
2. Select Options > Maintenance Schedule.
3. Make any necessary changes and click Save.

Viewing reports

When Report Writer generates a report, it adds the report to the spoolheader and spool tables to be printed or available for online viewing. The spoolheader and spool tables link to each other. You cannot modify the contents of the report, but you can adjust the spoolheader table information, if necessary.

After sending a report to the spoolheader and spool tables, Report Writer passes it to the operating system based on parameters you define when scheduling the report to run.

The spoolheader table defines the name of the report, the time the report started and ended spooling, and the operator who scheduled the report to be processed.

The spool table contains the actual report (each page being a separate record within the spool table). You can view the generated reports online.

The fields in the spoolheader and spool forms are described in the HP Service Manager field help.

- To view the help for a field, put your cursor in the field and press Ctrl+H or select Help > Help on Field.

How do I view a report online?

To view a report online

1 Access a report, following the procedures discussed in How do I access a report? on page 11. For this example, access the resolution code listing report.

2 Select Options > View Spooled Reports.

Place your cursor in the field on which you would like to base your search, and click Find.

A record list opens, and a record frame opens to display the item details.

3 Click Refresh to refresh your view of the report.

4 Click Back to finish viewing the report.

3

Using Stacked Queries

Report Writer enables you to define selection, totaling, and report form criteria Using stacked queries for sorting

Report Writer bases report generation on the records retrieved from the primary file by the definition of the primary query or the definition of the stacked queries. Different rules apply to each of these situations and each has advantages and disadvantages over the other.

When should I choose the Primary Query option?

Choose the Primary Query option in the following circumstances:

- A query of *true* is defined and either:
  - No sort fields are defined (Report Writer uses the first key in the key list to retrieve the data records).
    – OR –
  - The sort fields are defined as keys.
  - The primary query and the sort fields reference the same key and the primary query is fully keyed.
- The primary query is fully keyed and no sort fields are defined.

Rules for primary queries

The following rules apply if you run a report with a primary query.

- Report Writer does not create a work table.
- For optimum performance, the primary query must be filly keyed.
- If you define sort fields, Report Writer uses that key (and that key only) to retrieve records from the database.

Note: If the primary query is not fully keyed based on the sort key, turnaround time is degraded.

For example, if a table has the following keys,

- category
- status
- open.time
- assignment
- category

and the sort fields for the report are,

- open.time
- assignment
- category

then the query,
category="network"and status~="closed"
is not fully keyed.

This query is partially keyed. The sort fields force HP Service Manager to use the second key to retrieve the records. Report Writer must expand each record the query retrieves (in this case all records appearing in the key list for the second key) to determine if the data record meets the search requirement.

When should I choose the Stacked Queries option?

Stacked queries are separate and distinct from secondary queries.

Choose the Stacked Queries option in the following circumstances:

- The sorting requirements for a report are not defined as a key in the Primary File's dbdict.
- The primary query does not reference the same key as the sort fields.
- The reporting requirements are such that one fully keyed query cannot be defined.

Rules for stacked queries

The following rules apply if you run a report with stacked queries:

- Repertories creates a work table.
- Any Format Control definitions specified for any forms used in the report are still in effect.
- Any subtotaling requirements defined for the report are still in effect.
- Sort fields do not have to be keys in the primary file’s dbdict, but they must exist as fields.
- If you use structure names in one sort field, you must use them in all sort fields.
- Report Writer performs the following validations on all sort fields and logs any errors msglog file.
  - The structure name (if any) referenced in each sort field must be valid.
  - The sort field must belong to the indicated structure (if one is specified).
  - The sort field must be a scalar number, character, logical, or date/time field.

Important: Do not specify other field types. Other types of fields can cause Report Writer to abort the sort.

- Report Writer runs each stacked query against the primary file and stores all records in the sort work table, temporarily.
- Report Writer runs the primary query against the sort work table, and therefore, under normal circumstances, is defined as true.
- The work table is a logical file defined with the following naming standard: workxxxmmddyyhhmmss
  where work is a constant, xxx is the name of the primary file and mmddyyhhmmss is the date and time that the work table was created.
- The work table is created in physical file 3. Exercise caution when using stacked queries. Stacked quires causes all records from any table to be read and placed in the sort work table.
- The work table, scheduled for deletion 2 hours after its creation, has a class of report and an operator name of sortsubr. Periodically review the dbdict file to ensure that all work tables have in fact been deleted. Be sure to only delete those files that completely follow the naming standards of the sort work tables.
- The sort routine copies all unique keys from the primary file to the sort work table and adds the sort fields as nulls&duplicates keys. All no nulls and no duplicates keys that appear in the keylist before the first unique key are copied to the sort work table. If no unique, no nulls or no duplicates keys exist, the first key in the keylist is copied to the sort work table.
- If the same record is retrieved using different queries and at least one unique key is defined for the sort work table, the duplicate record is not added to the sort work table.
- All error messages issued from the sort routine are logged in the msglog file.
- A message stating how many records were added to the sort work table based on the execution of each stacked query is issued to the msglog file.

Stacked Queries Example

Suppose that the requirements of a report are:

1. List all open Incident tickets for the categories of lines, modems, and operator.
2. The sort requirements are by category, assignment, status, and open.time.

3 The primary file is *probsummary* and the following keys are defined.

```
number
**********
flag
category
subcategory
company
**********
logical.name
**********
```

The specifications for the report would be:

Field	Value
Primary File	probsummary
Primary Query	true
Stacked Queries	category="lines" and status=~"closed" category="modems" and status=~"closed" category="operator" and status=~"closed"

Note: Each of these queries is fully keyed. For optimal performance, define the queries so that HP Service Manager can meet all or most of the query requirements from a key list rather than having to expand records retrieved from a particular key.

The sort fields would be:

```
category
assignment
status
open.time
```

Note: These sort fields are not defined as keys in the primary file, but they will be defined as keys in the temporary file.

If the report ran at 15: 00 hours on 02/07/06, the name of the sort work table would be *workprobsummary0207061500.*

4

Using Report Forms

When you create a report, Report Writer uses several forms to generate it.

This table describes the report forms.

Report Form	Description
Initial	Collects data from the user at runtime.
Header	Displays the report titles or headings. Report Writer prints this form at the top of every page. It usually contains column headings that explain the fields in the detail section of the report.
Detail	Displays the values of database fields. The detail form comprises the input fields, positioned in a columnar arrangement immediately beneath the corresponding headings. The names of the input fields must reflect the exact names used in the respective database tables or variables that are defined through Format Control or Totals Parameters definitions. You can use the same detail form for multiple reports.
Subheader	Displays information immediately preceding detail information extracted from a secondary file. To use subheader reports, you must define a Format Control record for the detail form, to identify the secondary file to use to extract information for the detail form.
Totals	Display summary totals of the data gathered.

How do I create or edit report forms?

To create or edit a report form

1 Open an existing report following the instructions in How do I access a report? on page 11.

For this example, open problem.category. This is the report created in How do I create a new report? on page 15.)

2 Click Edit to open then editing screen and add any necessary information. The Report Maintenance form opens.

3 Edit the fields, based on the following table and the information in The Report Maintenance form on page 12.

Field	Description
Detail	problsummary.category.detail
Sort Sequence	assignment This example report does not use stacked queries, therefore the sort sequence field must be a key in the primary filename (probsummary) dbdict.
Width (80/132)	80

4 When filling in a detail form for a report, you must define the Input fields. You may also define Caption fields.

5 Open Options > Forms Designer.

If the Name field is blank, Forms Designer opens a prompt where you can name your report.

a Type the detail form name at the Name field.

For this example, type probsummary.category.detail.

b Associate the form with the primary file of the report.

For this example, use probsummary.

6 Fill in the detail form, following normal Forms Designer procedures. For more information, refer to the HP Service Manager Help.

7 Click Add.

Note: Edit the field names to reflect their dbdict field names. To ensure that the input field names are correct, you can associate the form with the primary file of the report. As you define each input field, check the field name to verify that the field does exist in the primary file.

8 Click Cancel to close the edit field window.

9 Click OK or Back until you return to the Report Maintenance form.

10 Save the newly-created form.

Note: Update the header form if prompted to do so.

11 To run this report, follow the instruction in Running Reports on page 19.

Creating Query forms for reports

Report Writer provides the option to define a set of queries for a report, which you can then use as the Primary Query when initially scheduling the report to run. HP Service Manager stores these queries by report name and user ID. You can access them for viewing and updating. These stored queries do not overwrite the original Primary Query defined in the report record.

How do I create Query forms?

To create a query form for a report and establish stored queries

1 Open an existing report following the instructions in How do I access a report? on page 11.

For this example, open problem.category.report. This is the report created in How do I create a new report? on page 15. The Report form opens.

2 Click Edit to access the edit functions of Report Writer.

3 Specify a Query Format name.
If you leave the Query Format field blank, Report Writer takes the value in the Primary File field as the form to use when creating queries.

For this example leave the this field blank.

4 Open Options > Set Query to access the query form and begin the process of setting queries for the report. The Report Query Maintenance form opens. For a description of this form, see The Report Query Maintenance form on page 36.

- If report queries already exist for this report, a record list of those queries opens. From this list, you can select a query for maintenance.
- If there no report queries exist for this report, HP Service Manager prompts you to add a query.

5 Select a record from the list and click Edit to make changes.

For this example, select the *problem.category.report* record.

a Type the name of the query in the Name field and the query into the Query field.

For this example, type Alert Status in the Name field.

b Type the query you want to use as the primary query in the Query field.

For this example, type the following in the Query field.

```
status#"alert" or status#"DEADLINE"
```

6 Click Add to add the stored query.

7 To begin the process of entering a report query, click Build.

The associated form opens. For this example, the *probsummary* form opens.

Report Writer displays the form and the search arguments you specify in the Query field of the Report Query Maintenance form. For more information, see Field descriptions for the probsummary form on page 37.

8 Type data that will satisfy your search. The more fields you fill in, the narrower your search will be.

For this example, type the following in the Category field.
=network

9 Click Query Window to open the query form. You can view and edit the SQL translation of this query in this form.
– OR –
Press Enter to translate the query into SQL. HP Service Manager again displays the form with that SQL expression in the Query field.

For this example, click Query Window.

Note: This routine does not automatically insert the flag=true portion of queries, which are normally associated with queries used against Incident Management and Change Management.

You must make the necessary modification to the translated SQL to accommodate these or any other special query needs.

If the query is correct, press Enter.
– OR –
If the query shown in the Report Query Maintenance form is not the desired query, make changes as needed and click Update.

For this example, the desired query, which will select all records from the probsummary file that have a *category* value of *network*, is displayed. Therefore, press Enter.

HP Service Manager displays the translated SQL expression in the Query field.

10 Specify a unique name for the query.

For this example, type the following in the Name field.

network

11 Optionally, you can modify the SQL expression shown in the Query field.

For this example, add the following to the expression in the Query field.

```
and flag=true
```

12 Click Add to add a new query record, or click Update to update an existing record.

13 Click Back to get back to the to the Report Maintenance form.
– OR –
Click Run to run the new report query. For more information, see Running Reports on page 19.

A record list of one or more queries opens.

- Double-click the query name of one of the query records listed.
- The Run Report Exerciser form opens, enabling you to schedule the report to run in either the background or foreground.

  While in the Run Report Exerciser form, the query you defined in the previous steps is now in the Primary File Query field. However, the original Primary Query defined in the report record itself is not affected.

The Report Query Maintenance form

When you add queries to a report, Report Writer displays your options in the Report Query Maintenance form (report.query.maint).

The fields in this form are described in the HP Service Manager field help. To view the help for a field, put your cursor in the field and press Ctrl+H or select Help > Help on Field.

The available options may vary depending on the preferences you have selected, the record you select, and your permissions

Button	Option	Description
	Add	Enables you to modify a selected record and add it to the database, while leaving the original record in place.
	Update	Saves changes to the current record.
	Back	Returns to the previously displayed form.
	Delete	Deletes the currently displayed query record.
	Build	Displays the form defined in the Query Form. If you do not specify a form, HP Service Manager displays the form with the same name as the primary file name of the report (if any.)
	Clear	Clears all displayed fields.
	Update Report Query	Copies the currently displayed query and overlays the Primary Query of the report you are editing.

Field descriptions for the probsummary form

The field descriptions in the *probsummary* form describe how you to set up your data to satisfy your search. The Header Information structure delineates how to print each record within the query.

Field	Description
Header Information structure	
Incident No	Use this field to query for a specified Incident number. Leave this field blank to return records with any incident number.
Status	Use this field to query for a status. Leave this field blank to return records with any status.
Category	Use this field to query for incidents classified by this the category. Leave this field blank to return records with any category.
Assigned To	Use this field to query for incidents assigned to this person. Leave this field blank to return records assigned to any person.
Priority	Use this field to query for incidents with the Priority (1 through 4). Leave this field blank to return records with any priority.
Change No.	Use this field to query for incidents with this the unique change record number. Leave this field blank to return records with any change number.
Page	Use this field to query for a specific page number of the printed report. Leave this field blank to return all pages.

Field	Description
Reassign Count	Use this field to query for incidents tickets that have been reassigned the specified number of times. Leave this field blank to return records that have been reassigned any number of times.
Opened	Use this field to query for incidents opened on this date. Leave this field blank to return records opened on any date.
Alert	Use this field to query for the alert status that was generated, if an alert has been generated for this record. Leave this field blank to return records with any alert status.
Updated	Use this field to query for the date the record was last updated. Leave this field blank to return records updated on any date.
Closed	Use this field to query for the date the record was closed. Leave this field blank to return records closed any date
Logical Name	Use this field to query for the logical file name of the device associated with the record. Leave this field blank to return records with any logical name.
Location	Use this field to query for a particular company location. Leave this field blank to return records with any location.
Contact Name	Use this field to query for a particular contact name. Leave this field blank to return records with any contact name.
Service Contact	Use this field to query for a particular service contact. Leave this field blank to return records with any service contact.

Using initial forms with reports

An initial form enables you to enter data for Report Writer to use to develop the query for the report. If you want to retrieve data from the user at runtime, you must create an Initial form.

For example, if the report requires a date and time range, you can use an initial form to enable the user to enter this range rather than entering a complete SQL query in the Primary Query field.

How do I access a form in Forms Designer?

To access a form in Forms Designer

- From the Report Maintenance form or Report Totals form, open Options > Forms Designer.
- From the main menu or system navigator, open Tailoring > Forms Designer.

How do I use an initial form?

To specify an initial form for a report

1 Access the form in forms designer.

For this example, access the *problem.category report*.

2 Type the form name in the Initial Format field.

3 Create the form, using the usual Forms Designer procedures. For more information, refer to the HP Service Manager Help.

Note: The Input field names for the fields displayed when creating your new form in Forms Designer are $start and $end.

4 To include information from the initial form on the report, change the Primary Query statement to the following.

number> $start and number <$end

5 Click Run to run the report. For more information, see Running Reports on page 19.

Note: You cannot run reports that use the initial form option in the background. Therefore, the Run Report in Background field is defaulted to f (false).

6 Click Run to complete the request.

Using page breaks and report totals

In addition to producing simple report listings, Report Writer also allows for accumulation of various statistics, based on user-specified totals and parameters. You can print these statistics according to user-defined forms at various phases of report generation based on user-defined control or condition breaks. You can use variations of Totals Parameters with or without Format Control definitions. Format Control definitions enable you to create a wide variety of report statistics.

How do I access the Totals section of a report?

This section demonstrates accessing the Totals section of a report and defines the various Totals Parameters, including referencing them and creating the forms used to print accumulated statistics.

To access the Totals section of a report

1 Open Tailoring > Report Writer
– OR –
Type rw on a HP Service Manager command line and press Enter.
The Report Writer Entry form opens.

2 Type problem.category in the Report field.
The Report form opens.

Click Edit to access the edit functions of Report Writer.
The Report Maintenance form opens. See the The Report Maintenance Editing form on page 16.

3 Open Options > Totals to access the Report Totals (report.totals) form. This form is described in The Report Totals form on page 40.

This form utilizes a lot of screen real estate. You can use the scroll bars to move to the left and to the right or up and down.

The Report Totals form

When you create a totals or subtotals report, Report Writer displays it in the Report Totals form (report.totals).

The fields in this form are described in the HP Service Manager field help. To view the help for a field, put your cursor in the field and press Ctrl+H or select Help > Help on Field.

The available options may vary depending on the preferences you have selected, the record you select, and your permissions

Button	Option	Description
	Back	Returns to the previously displayed form.
	Clear	Clears the data displayed on the form.
	Forms Designer	Opens Forms Designer, enabling you to edit the form of a report. For more information, see the HP Service Manager Help.

Sample Report 1: Using Simple subtotals

This sample report demonstrates how to define the Totals parameters to print a subtotals form. It is a continuation of the from created in How do I create a new report? on page 15.

This report generates subtotals from the primary file (*problem*), showing the total number of records for each Assignment Group.

To create a subtotals form

1 Access the totals section of the report you want to create a totals form for. For more information, see How do I access the Totals section of a report? on page 40.

For this example access the totals section of the *problem.category* report.

2 Type the name of the form want to use to print the subtotal in the Form Name field of the Totals structure.

For this example, type probsummary.demo.totals and press Enter.

Report Writer checks for a form called *probsummary.demo.totals* in the format table. If the form already exists, it opens.

If the form does not exist, open Tailoring > Forms Designer and create the form using normal Forms Designer procedures. For more information, refer to the HP Service Manager Help.

3 Create each field, using the input properties described in this table.

Input properties for the subtotals form:

Field	Description
report.count	Contains the total number of detail records processed by the report and is normally printed on a grand totals form, but may be printed on any totals form to show a running total.
report.subcount	Contains the total number of records processed for each calculation of each subtotal. If it is necessary to reference a particular array element on a subtotals form, the correct field name would be report.subcount,x where x is an array element number relative to the position of a calculation within the totals definition. This field is normally used in conjunction with the report.sumflds field for summary totals.
report.sumflds	Contains the value of each field that caused a control break. This field is normally used in conjunction with report.subcount for summary totals.
report.subfld	Contains the value of the field entered in Reset Field/Variable Name at the time a control/condition break is detected.
$rw.dummy	A variable defined by Report Writer that contains NULL characters.
$rw.months	Contains full month names. January is the first element with December being the twelfth element.
$rw.mon	Contains abbreviated (three-character) month names. Jan is the first array element with Dec being the twelfth element.
$rpt.date	A variable defined by Report Writer that contains the date and time when the report was run.
$page	A variable defined by Report Writer that contains the page of the output of the report.

4 Click OK to save your new form before exiting the Forms Designer to save the changes you made to the form.

5 Scroll to the left to enter parameters in other fields on this form.

Note: Any time you scroll left or right while in this form, place the cursor in the home position before scrolling. This ensures that the labels and input fields remain properly aligned within the structured array.

6 To define the field by which you will be subtotaling, type its name in the Reset/Field Variable Name field.

This causes the subtotals form (in this example, *problem.category.totals*) to print every time the value of the Assignment field changes. For example, if the Assignment field value of the current detail record is network control and the next detail record has an Assignment field value of software support, the subtotals are printed before the next detail record.

7 Scroll to the left again to enter parameters in the third section of this form.

8 Type true in the Always field.

This forces the subtotals to print even if only one detail record is printed.

9 Click End to return to the Report Maintenance form.

Note: If you would like to erase all values in the Report Totals form, click Clear Fields.

A confirmation prompt will display, allowing you to either click Clear Fields to continue clearing the fields or Abort to cancel deleting the totals information.

10 To run this report, follow the instruction in Running Reports on page 19.

Sample Report 2: Using subtotals, summary totals, and grand totals

This example report demonstrates how to define the necessary Totals Parameters to print subtotals, summary totals, and grand totals.

- Summary totals display the same statistics printed in each subtotal, but in a summarized form. Changing the Summary/Detail field on the Report Maintenance form causes only the totals portions (subtotals, summary totals, and grand totals) of the report to print. The detail form does not print.
- Grand totals show the total number of detail records selected during report generation.

To define the totals parameters

1 Create the report. For this example, use the following parameters.

Field	Value
Report Name	operator.count
Report Title	Monthly Inventory
Auto/Manual	Auto
Summary/Detail	Detail
Primary File	operator
Header Format Name	operator.count.header
Detail Format Name	operator.count.detail
Primary Query	true
Sequence of Report	model

For instructions on creating a report, see How do I create a new report? on page 15.

2 Service Manager checks for a form the matches the name you specified in the Detail Format Name fields.

- If the form exists, it open.
- If the form does not exist, Forms Designer opens.

3 Create the detail form using following input fields. For more information, refer to the HP Service Manager Help.

model
logical.name
serial.no
location

4 Add captions to identify the fields.

5 When you are finished adding the report, click Edit Rpt to access the Edit functions.

6 Click Totals to access the Report Totals form.

7 Type the name of the form to use to print the subtotal in the Subtotals Format Name field.

For this example, type operator.count.subtotal.

Note: You can create the subtotals form through normal Forms Designer procedures either before entering the Totals Parameters or during the Totals Parameters definition process.

In this example, we create the subtotals form *operator.count.subtotal* from the Report Totals form.

8 Position the cursor on the Totals Format Name field and open Options > Forms Designer.

HP Service Manager checks for a form called *operator.count.subtotal* in the format table.

- If that form already exists, it opens.
- If the form does not exist, a blank screen opens, allowing you to fill in the form using the normal Forms Designer procedures. For more information, refer to the HP Service Manager Help.

9 Edit the fields to update the form. For the example use the following values.

Caption	Input
Subtotals for:	report.subfield
No. of recs:	report.subcount,1
	$rw.dummy

10 Click OK to return to the Report Totals form.

11 To force a page break after each subtotals form prints, type true in the New Page field.

12 To access the second portion of the Report Totals form, press Home to move the cursor from the array, and scroll to the left until you see the label Reset/Field Variable Name.

13 To define the field by which you will be subtotaling, type its name in the Reset/Field Variable Name field. This causes the subtotals form (*operator.count.subtot*) to print every time the value of the Model field changes.

   For this example, type model.

14 Scroll to the left again to enter parameters in the third section of this form

15 To run this report, follow the instruction in Running Reports on page 19.

5

Using Format Control in Reports

Report Writer uses several forms. Each of these forms can have Format Control records for Report Writer to run when executing your report.

This table describes format control on the report forms and how to use it.

Report Form	Description
Initial form	Set up Format Control on the Initial form to initialize data entered on the Initial form. Use initialization expressions to validate data entered on the Initial form. The Format Control record looks like Format Control on any HP Service Manager form.
Header form	Set up Format Control on the header form to initialize the variables, defined in the initialization expressions section of the Format Control record, for other forms to use. Use the header form to initialize a variable only once when executing the report.
Detail form	Set up Format Control on the detail form to initialize or calculate data, select records from secondary files, and run P4 subroutines, using the display option of the Format Control record. Validation expressions have no effect in this version of the Report Writer. HP Service Manager resets all variables set in the detail form each time a user selects a record.

Accessing Format Control

Accessing Format Control through Forms Designer reduces the chances of accessing the incorrect record, because you are accessing the record directly from the form with the same name as the Format Control record.

How do I access Format Control?

To access Format Control

1 When in the Report Maintenance form or Report Totals form, open Options > Forms Designer.
The initial Forms Designer view opens.

2 Type the name of the form you want to see in the Form field of the Forms Designer dialog box.
– OR –
Click Search to find the form.

3 Open Options > Format Control.
The Format Control record appears for the selected form.

Important: Ensure that this Format Control record has the same name as the detail form.

Format Control options

Option	Description
Add	Adds the Format Control record.
Update	Updates the Format Control record.
End	Saves and Exits the Format Control record.
Calculations	Accesses the calculations section of the Format Control record. Example calculation expression: if (flag=false) then ($demo.elapsed=close.time in $file - open.time in $file) else ($demo.elapsed=tod() - open.time in $file)
More	Accesses other sections of the Format Control record.
End	Exits the Format Control record without saving the information. Returns back to the Report Writer Entry form.

Sample Report 3: Using Format Control for Calculations

This example report demonstrates how to define the necessary Totals Parameters to use calculations. You can use the calculations process within Format Control whenever you want to perform a calculation on currently available fields or variables.

To use calculations in a report

1 Create the report. For this example, use the following parameters.

Field	Value
Report Name	problem.calculations.demo
Report Title	Demo of Using Totals Calculations
Auto/Manual	auto
Summary/Detail	detail
Primary File	probsummary
Header Format Name	problem.calculations.demo.header
Detail Format Name	problem.calculations.demo.detail
Stacked Query	flag=true and status~="closed"
Sequence of Report	assignment

For instructions on creating a report, see How do I create a new report? on page 15.

HP Service Manager checks for a form called *problem.calculations.demo* in the format table.

- If the form already exists, it opens.
- If the form does not exist, a blank screen opens, allowing you to fill in the form using normal Forms Designer procedures. For Forms Designer procedures, see the HP Service Manager Help.

2 Create the detail form using following input fields. For more information, refer to the HP Service Manager Help.

number
category
sassignment
status
open.time
$demo.elapsed

3 Add captions to identify the fields.

4 When you are finished adding the report, click Edit Rpt to access the edit functions. The report opens.

5 Click Totals to access the Report Totals form.

6 Type the name of the form being used to print the subtotal in the Format Name field.

For this example, type problem.calculations.demo.subtotal.

7 Create the subtotals form.

8 Click Tailoring > Forms Designer.
If the form does not exist, a blank screen opens.

9 Fill in the detail form, following normal Forms Designer procedures.

10 Click Tailoring > Forms Designer. For more information, refer to the HP Service Manager Help.

For this example, create the form problem.category2.subtotal with the following values.

Caption	Input
Summary totals For:	report.subfld
Average Elapsed Time:	$demo.elapsed.average
Total Elapsed Time:	$demo.elapsed.sum

11 To calculate the average and sum of the variable $demo.elapsed for each grouping of problem records by category, type the values shown for the Field/Variable Names to Total and Calc fields.

Field/Variable Names to Total	Calc
$demo.elapsed	AVG
$demo.elapsed	SUM

12 Scroll left to view the second portion of the Report Totals form.

13 Specify values in the Variable Names on Form array to identify where to print the result of the calculation within the subtotals form.

Field/Variable Names to Total	Calc	Variable Names on Form
$demo.elapsed	AVG	$demo.elapsed.average
$demo.elapsed	SUM	$demo.elapsed.sum

14 Type category in the Reset Field/Variable Name field to calculate the totals separately for each category grouping.

15 When you are finished entering the appropriate data, click End to return to the Report Maintenance form.

16 To evaluate the value to be used for the $demo.elapsed variable, you must attach Format Control to the detail form.

a When you are finished with your design changes, open Options > Format Control to create a new Format Control record.

b A prompt asks you to save your changes. Click Yes.
The *formatctrl.maint.initial* form opens.

c Ensure the name of your Format Control record is the same name as your subheader form.

d Specify any initialization expressions, and click Add.
For this example, there are no entries required in the Initialization Expressions field.

e When you are finished, click OK.

f Click Calculations in the Format Control Maintenance form.

g Type the values in the fields as described below.

Field	Value
Display	true
Calculation	if (status in $file#"closed") then ($demo.elapsed=close.time in $file - open.time in $file) else (#$demo.elapsed=tod() - open.time in $file) Put all expressions on one expression line, separated by semicolons. Never place a semicolon at the end of the final expression. This causes HP Service Manager to expect another expression.

h When you are finished, click OK. Continue to click OK until you return to the Report Maintenance form.

17 To run this report, follow the instruction in Running Reports on page 19.

Sample report 4: Using Format Control for subheaders

You use the subheader form when designing a report to print the information that immediately precedes the detail information from a secondary file. The subheader form identifies the secondary file used to extract information for the detail form, therefore, you must define Format Control for the subheader form of all Subheader reports.

- The subheader form contains the fields from the primary file, defined in the report.
- The detail form contains fields from the secondary file, defined in the Secondary File Queries section of the Format Control record of the subheader form.
- A common field value connects the primary and secondary files.

In this example, we match the value in the Location field from the *location* table (primary file) with the value in the location field from the *operator* table (secondary file). Each time the report selects a record based on the Primary Query from the primary file (*location*), Report Writer uses Format Control to find the matching records in the secondary file (*operator*) using the Location field.

To use Format Control for subheaders

1 Create a new report in Report Writer, using the following values. For more information, see How do I create a new report? on page 15.

Field	Value
Name	location.summary (or any unique name)
Title	Any title
Auto or Manual	Auto
Summary or Detail	Detail
Primary File	location
Header Format	location.summary.header (default)
Subhdr Format	location.summary.subhdr
Detail form	location.summary.detail (default)
Primary Query	true
Sort Sequence	location Since stacked queries are not used, location must be a key in the primary file's dbdict before you can use it as a sort field.

2 Create the header form.

a Click Tailoring > Forms Designer and create a form in with the following input fields. For more information, refer to the HP Service Manager Help.

Name
Location
Address
City
State
Zip
Primary Contact

b Add captions to identify the fields.

c When you are finished working within the Forms Designer utility, click OK.

3 Create the subheader form.

a Click Tailoring > Forms Designer. Create the form using the following values. For more information, refer to the HP Service Manager Help.

Caption	Input
Location:	location
Location Name:	location.name
Address:	address
	window=1
City:	city
State:	state
Zip:	zip
Primary Contact:	primary.contact

b When you are finished working within the Forms Designer utility, click OK.

4 Add Format Control.

a Click Tailoring > Format Control to create a new Format Control record. For more information, refer to the HP Service Manager Help.

b A prompt asks you to save your changes. Click Yes.
The *formatctrl.maint.initial* form opens

c Ensure the name of your Format Control record is the same name as your subheader form.

d Specify and initialization expressions and click Add.
In this example, there are no entries required in the Initialization Expressions field.

5 Add queries.

a Open Options > Queries.

b Click Yes.

c Make the file queries entries as needed.

For this example, use the following values.

Field	Value
Display	true
Filename	operator This identifies the operator table as the secondary file for this report. The *location* table and *operator* table are connected when the values in their Location fields match.
Query	location=location in $file
Req'd Query	false This signifies that the match is not required for the subheader form to print.

d Click Save to save the record.

e Click OK twice to exit the forms and return to the Report Maintenance form.

6 Create the detail form.

a From the Report Maintenance form, put your cursor in the Detail field of the Forms structure of the Report Maintenance form (on the location.summary.detail value) and open Options > Forms Designer.

HP Service Manager checks for a form called *location.summary.detail* in the format table. If the form already exists, it opens. If it does not exist, a blank screen opens, allowing you to paint the form using normal Forms Designer procedures. For more information, refer to the HP Service Manager Help.

b Click Design to create the form or change the existing form.

c Add the appropriate Input fields.
For this example, include:

Caption	Input field
Logical Name:	logical.name
Serial Number:	serial.number
Manufacturer:	manufacturer
Model:	model
Type:	type

d Click Add or OK to return to the Report Maintenance form.

7 To run this report, follow the instruction in Running Reports on page 19.

Sample Report 5: Using Format Control in a Matrix report

The following sample report gives summary count information on severity codes and the status of incident tickets. The severity code labels print in the column and the status (such as, open and update) labels print in a row.

The report consists of a header and two subtotals forms. It is a summary report, but it does not use the Summary field (true/false) on the Totals screen. There is a Format Control record associated with both the header and detail forms. they contain initialization and calculation expressions for processing record counts.

To create a matrix report using Format Control

1 Use the following values to create the report.

Field	Value
Name	problem.severity.summ (or any unique name)
Title	A user - defined title
Auto or Manual	Auto
Summary or Detail	Summary
Primary File	probsummary

Field	Value
Header Format	problem.severity.summ.header (default)
Detail format	problem.severity.summ.detail (default)
Primary Query	flag=true Unix users can also use status~="closed".
Sort Sequence	severity To sort and break on the Severity field for a Summary report, the field must exist as a key in the *probsummary* dbdict, or the primary query must be defined as a stacked query.

2 Create the header form.

a When you have all the field values entered, place the cursor in the Header field (problem.severity.summ.header value) and open Options > Forms Designer.

HP Service Manager checks for a form called problem.severity.summ.header in the format table. If the form already exists, it opens. If it does not exist, a blank screen opens, which allows the user to paint the form using normal Forms Designer procedures. For more information, refer to the HP Service Manager Help.

b In order to sort and break on the Severity field for a Summary report, you must set up the same field as a key in the probsummary dbdict, or define the primary query as a stacked query.

c Click OK to add the new form and return to the Report Maintenance form.

3 Create a detail form.

Since this report is a Summary report, Report Writer does not print a detail form when it generates the report. However, because a Format Control record is required for calculations to occur on each detail record, we must create a detail form to attach to the Format Control record.

Place your cursor in the Detail field (on the problem.severity.summ.detail value) and click Tailoring > Forms Designer.

HP Service Manager checks for a form called *problem.severity.summ.detail* in the format table. If the form already exists, it opens. If it does not exist, a blank screen opens, enabling you to paint the form using normal Forms Designer procedures.

4 Create the first subtotals form.

a Select Options > Totals to open the Report Totals form.

b Position the cursor on the first Subtotals Format Name field and open Options > Forms Designer.

c Type problem.severity.summ.sub and click New.

d A prompt asks if you want to use the Forms Designer wizard. Click No.

e Follow normal Forms Designer procedures to create a new form including the following input fields. For more information, refer to the HP Service Manager Help.

report.subfield	$open	$updt
$alrt1	$alrt2	$alrt3
report.subcount,1		

f Add captions to identify the fields.

g When you are finished, click OK.

5 Edit the Report Totals form.

a Open Options > Totals.

b Fill in the fields in the Report Totals form as follows:

Subtotals Format Name field: problem.severity.summ.sub

Field/Variable Names to Total	Calc	Variable names on form
$opn	SUM	$open
$upd	SUM	$updt

Field/Variable Names to Total	Calc	Variable names on form
$al1	SUM	$alrt1
$al2	SUM	$alrt2
$al3	SUM	$alrt3

c Access the second portion of the Report Totals form and scroll to the right until you see the Reset Field/Variable Name field.

d Type severity.

e Type true in the ALWAYS field.

f Click OK.

6 Create the second subtotals form.

a Position the cursor on the second Format Name field and type problem.severity.summ.tot.

b Click Tailoring > Forms Designer.

c Follow normal Forms Designer procedures to create a new form with the following input fields. For more information, refer to the HP Service Manager Help.

open.tot	$upd.tot	
$alrt1.tot	$alrt2.tot	$alrt3.tot
report.count		

d Add captions to identify the fields.

e When you are finished, click OK.

7 Edit the Report Totals form.

a Open Options > Totals.

b Fill in the fields in the Report Totals form to add the following values.

Subtotals Format Name field: problem.severity.summ.tot

Field/Variable Names to Total	Calc
$opn	SUM
$upd	SUM
$al1	SUM
$al2	SUM
$al3	SUM

c Access the second portion of the Report Totals form and scroll to the right until you see the Reset Field/Variable Name field.

d Type severity.

e Type true in the ALWAYS field.

f When you are finished, click OK.

8 Create a Format Control record for the header form.

a Position the cursor on the Format Header field and open Options > Forms Designer.

b Click Tailoring > Format Control.

c The Format Control utility opens, enabling you to add a new Format Control record.

Note: Ensure that the name of this Format Control record is the same name as your header form.

d Type the following statements in the Initializations Expressions fields.

```
$open=0 ; $updt=0 ; $alrt1=0 ; $alrt2=0 ; $alrt3=0
$opn.tot=0 ; $upd.tot=0 ; $alrt1.tot=0 ; $alrt2.tot=0 ; $alrt3.tot=0
```

Note: These initialization expressions run only once during the report generation.

e When you are finished, click OK. Continue to click OK until you return to the Report Maintenance form.

9 Create a Format Control record for the detail form.

a Position the cursor on the Format Detail field and click Tailoring > Forms Designer.

b Create the necessary fields using the normal Forms Designer procedures. For more information, refer to the HP Service Manager Help.

c Click OK.

d Click Tailoring > Format Control.

e When prompted, click Yes.

Ensure that the name of this Format Control record is the same name as your detail form.

f Type the following statements in the Initializations Expressions field.

```
$open=0 ; $updt=0 ; $all=0 ; $al2=0 ; $al3=0
```

Note: These initialization expressions run each time you select a new detail record.

g When you are finished, click OK.

h Click Calculations in the Format Control Maintenance form.
The Format Control Maintenance - Calculations form opens.

i Type the values in the fields as described below.

Field	Value
Display	true

Calculation	if status in $file#"open" then $opn=1 ;
	if status in $file#"upd" then $upd=1 ;
	if (index("1",status in $file)> 0) then $al1=1 ;
	if (index("2",status in $file)> 0) then $al2=1 ;
	if (index("3",status in $file)> 0) then $al3=1
	Put all expressions on one expression line, separated by semicolons. Never place a semicolon at the end of the final expression. This causes HP Service Manager to expect another expression.

j When you are finished, click OK. Continue to click OK until you return to the Report Maintenance form.

10 To run this report, follow the instruction in Running Reports on page 19.

Index

S

T

U

V