



HP Access Control (HP AC) Job Accounting

User Guide

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1 HP Access Control (HP AC) Job Accounting

1.1 Overview

It is now easier than ever to access information. Whether you access data using the Internet or a company intranet, it is often necessary to print some of this information for archival purposes. This has resulted in rising expenses for many companies, due to increased printing costs.

HP Access Control (HP AC) Job Accounting:

- Is an easy-to-use software package that meets and exceeds the need for managed printing solutions in business. It helps manage your print system by tracking all copy originating from workstations within your local area network and print jobs processed through a central print server.
- Assists companies with an extended print system or a large print volume. For instance, large companies, universities, and organizations may want to allocate their printing costs directly to the responsible departments. HP Access Control (HP AC) Job Accounting also assists smaller companies, such as consulting firms or law offices, which handle a large number of certificates, contracts, and other documents.
- Enables you to analyze individual user printing habits and the average usage of your printers. You will then be able to optimize the management and sharing of your printers according to their use.
- Improves the cost management and organization of print tasks. The cost of every document printed or copied (when using HP Access Control (HP AC) Secure Pull Print) on every print server is accounted for and consolidated.



NOTE: Quota is only available if the HP Access Control (HP AC) Professional installation bundle is installed. If the HP Access Control (HP AC) Express installation bundle is installed, the Quota menu does not display.

2 HP Access Control (HP AC) Job Accounting Architecture

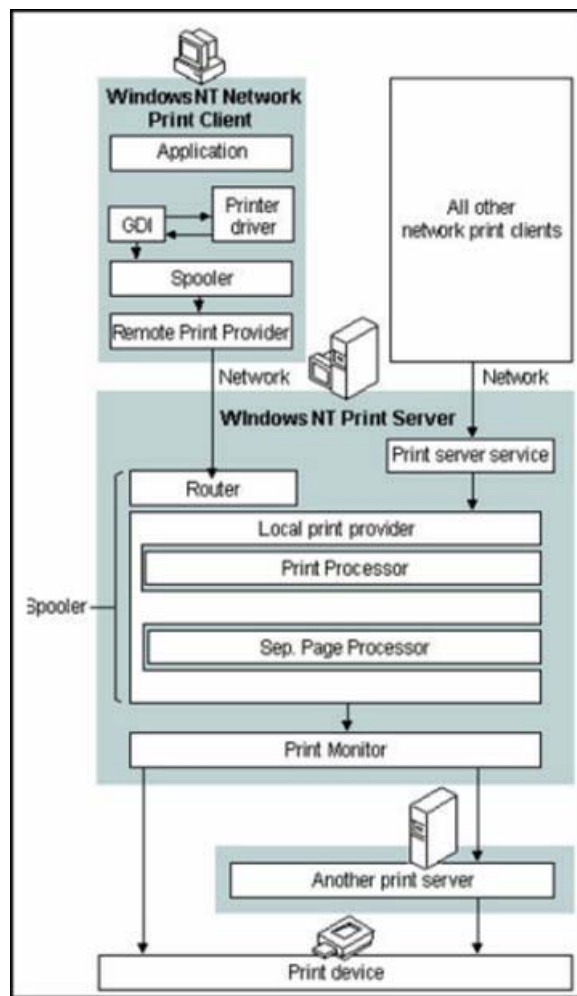
2.1 Windows print system

To better illustrate HP Access Control (HP AC) Job Accounting print system integration, it is helpful to understand the Windows print system.

The Windows print system consists of the following three basic components:

- An end user initiating the print spool
- The print server processing the job
- The printer

Figure 2-1 Windows print system



All printers are locally declared and shared among a user group from the print server. The spooler of a Windows print server manages your printing. The process for printing a document in Windows is as follows:

1. User chooses to print a document on a shared printer. The print job is rendered in the printer language of the print device. This happens at the client level, on a node/client PC on the network.
2. User's computer delivers the print job to the print server. The print job is sent over the network to the print server.
3. Print server receives the print job and assigns a data type according to the printer language.
4. Router or print server passes the print job to the local print provider on the server (a component of the spooler), which spools the print job (writes it to disk).
5. Local print provider polls the print processors declared on the server. When a print processor recognizes the job's data type (step 4), this print processor receives the print job and alters it if necessary according to the data type to ensure that the job prints correctly.
6. Job is sent to the print monitor.
7. Print device receives the print job, translates each page into a bitmap, and sends it to the printer.

2.2 HP Access Control (HP AC) Job Accounting print system integration

Like the Windows print system, the HP Access Control (HP AC) Job Accounting Print System Job Accounting print server consists of three basic software components:

- HP Access Control (HP AC) Job Accounting DS (HP AC Job Accounting Database Server)
- HP Access Control (HP AC) Job Accounting WS (HP AC Job Accounting Web Server, the interface)
- HP Access Control (HP AC) Job Accounting print server (HP AC Job Accounting Print Server)

These modules can be installed on either one or several machines.

⚠ CAUTION: HP Access Control (HP AC) Job Accounting does not take into account either the printers connected to a local port (such as LPT or COM) or the printers declared on the network, for instance those machines managed by another print server. In this last case, you will have to install an HP Access Control (HP AC) Job Accounting print server module on the second print server.

The same is true for all copiers (HP MFP), which should be declared on the machine where the HP Access Control (HP AC) Job Accounting print server is installed.

The following diagram provides an example of the overall HP Access Control (HP AC) Job Accounting architecture:

The diagram illustrates the HP ACJA architecture. At the top, multiple 'End user' desktops are connected to two 'HP ACJA Print Servers'. These print servers are connected to a central 'HP ACJA Database Server' and an 'HP ACJA Web Server'. The database server is also connected to an 'HP ACJA Administrator' at the bottom left. The web server is connected to an 'End user HP ACJA Administrator' at the bottom right. Additionally, there are two printer icons connected to the central database and web server components.

3 Information flow

3.1 HP Access Control (HP AC) Job Accounting print server

The HP Access Control (HP AC) Job Accounting Print Server is included with the spooler of your print system. This allows HP Access Control (HP AC) Job Accounting to detect every print job sent to any of these printers. HP Access Control (HP AC) Job Accounting keeps track of all printed documents, as well as their characteristics, some of which are listed below:

- Document name
- Printer (local and shared name) and its properties (such as color or black and white, or duplex unit)
- Job owner: name, machine name
- Number of sent pages and printed pages for HP devices configured to send printer confirmation using SNMP
- The printing mode (Economode, duplex, color)
- The date and time when the print job was sent
- The media used (such as transparency or paper) and its size (A3, A4, letter)

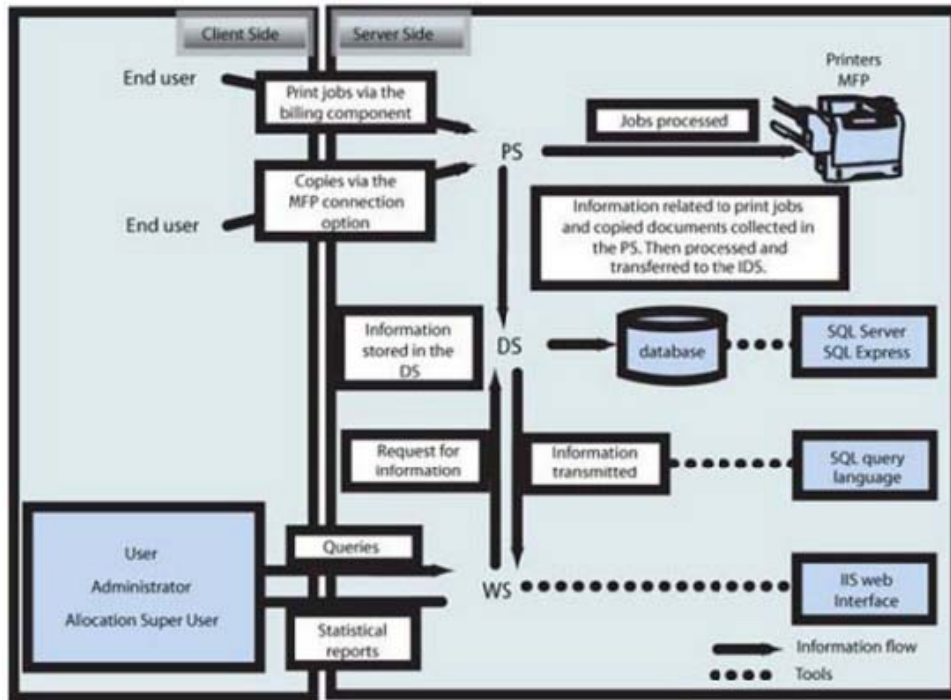


NOTE: In HP Access Control (HP AC) Job Accounting, the highest level of tracking is by pages. HP Access Control (HP AC) Job Accounting can intercept and manage job cancellations from the spooler or from the printer (for an HP printer equipped with HP JetDirect card, using SNMP protocol).

The HP Access Control (HP AC) Job Accounting Web Server enables you to query the HP Access Control (HP AC) Job Accounting Database Server and to access the data from the HP Access Control (HP AC) Job Accounting Database Server. The HP Access Control (HP AC) Job Accounting Web Server also enables navigation through the application using a Web browser. A Web browser is required to display the HP Access Control (HP AC) Job Accounting interface.

The following diagram illustrates the data flow within your print system.

Figure 3-1 Data flow



NOTE: This window presents all modules necessary to create a functional and correctly configured HP Access Control (HP AC) Job Accounting installation— HP Access Control (HP AC) Job Accounting Print Server, HP Access Control (HP AC) Job Accounting Database Server, HP Access Control (HP AC) Job Accounting Web Server, the HP Access Control (HP AC) Job Accounting interface, and the HP Access Control (HP AC) Job Accounting In Printer component.

4 Getting started

4.1 Login page

After installing HP Access Control (HP AC), open the HP Access Control (HP AC) Job Accounting configuration utility and click the **HP ACJA** tab. The HP Access Control (HP AC) Job Accounting login screen opens:

Figure 4-1 HP Access Control (HP AC) Job Accounting user login



 **NOTE:** Both the default login and password are **Admin**. The password field is case-sensitive.

The following rules apply to the login page:

- Entering user information on this page allows access to HP Access Control (HP AC) Job Accounting.
- When creating an account, enter your HP Access Control (HP AC) Job Accounting user name and password as defined by the HP Access Control (HP AC) Job Accounting administrator.
- If the user name or password is invalid, an error message appears. Try entering them again or contact your HP Access Control (HP AC) Job Accounting administrator.

 **NOTE:** **For the HP Access Control (HP AC) Job Accounting Administrator:** A default account is created when installing HP Access Control (HP AC) Job Accounting, to allow you to access the application for the first time. When you are connected, it is highly recommended that you change the password of the Admin account. For more information, see the *HP Access Control (HP AC) Job Accounting user options* section of this guide.

 **NOTE:** **For the HP Access Control (HP AC) Job Accounting User:** The HP Access Control (HP AC) Job Accounting administrator created your account with a user name and a password. Only your HP AC Job Accounting administrator can provide you with this information. After accessing your account for the first time, you can modify your password. For more information about modifying your password, see the *HP Access Control (HP AC) Job Accounting user options* section of this guide.

4.2 Information page

When you have successfully logged into HP Access Control (HP AC) Job Accounting, the HP Access Control (HP AC) Job Accounting Information page appears:

Figure 4-2 HP Access Control (HP AC) Job Accounting Information Page

User	
User name	Admin
Last connection	10/10/2013 13:29:40
Completed queries	0
Launched queries	0
Scheduled queries	0
Erroneous queries	0

Missing information	
Costs to define: printers	5
Costs to define: media	3

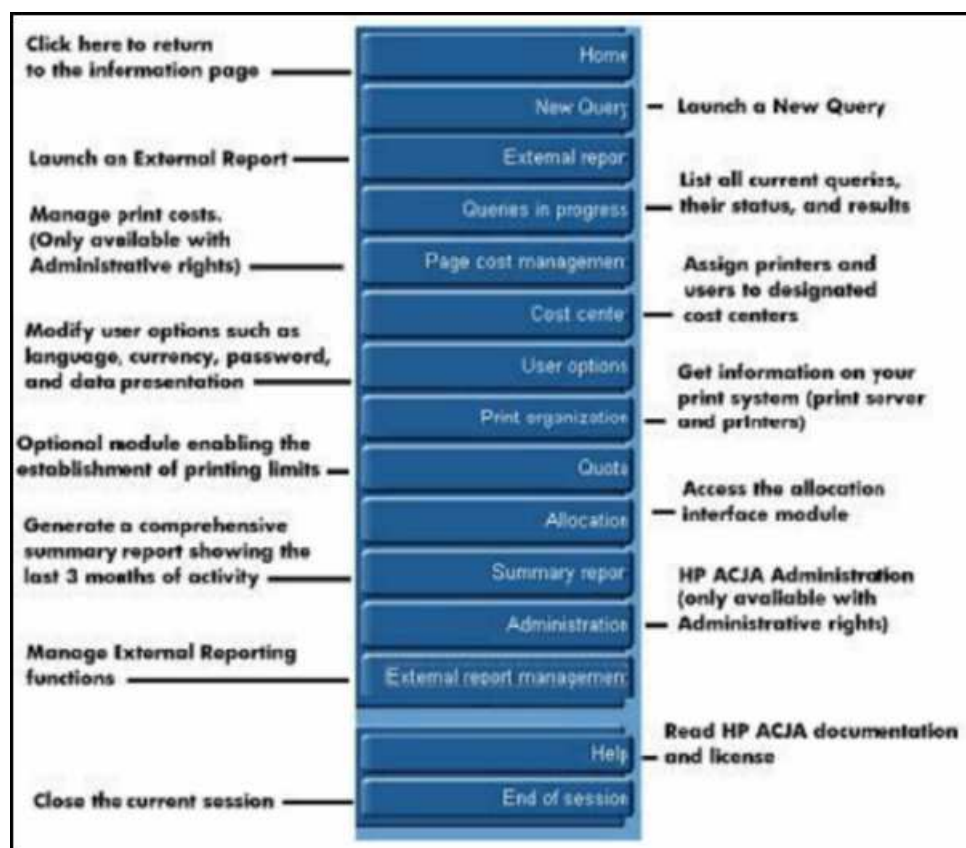
The information page consists of two parts: the HP Access Control (HP AC) Job Accounting Remote Control panel on the left, and the larger General Display window on the right. The HP Access Control (HP AC) Job Accounting Remote Control panel will always be displayed and does not change appearance. The General Display will change depending on the selection made in the Remote Control panel.

 **NOTE:** The screen in the figure below shows what an administrator might see. End-users who have not logged in as administrator will see fewer buttons in the Remote Control panel.

4.3 Remote control panel

The HP Access Control (HP AC) Job Accounting Remote Control panel and its functions are illustrated in the figure below:

Figure 4-3 HP Access Control (HP AC) Job Accounting remote control panel



4.4 General display window

The general display window can always be updated and accessed by clicking **Home** at the top of the Remote Control panel. (See Figure 4–3, above).

Figure 4-4 General display window

HP Access Control Job Accounting information	
License	
Evaluation period	
User	
User name	Admin
Last connection	04/04/2008 13:52:46
Completed queries	1
Launched queries	0
Scheduled queries	0
Erroneous queries	0

The general display window is divided into the following sections:

- The information about your license status. If HP Access Control (HP AC) Job Accounting is registered, nothing is displayed.
- Information about the current user.
- Information about costs and exchange rates. (This information only appears for an HP Access Control (HP AC) Job Accounting administrator.)
- Other miscellaneous types of information.



NOTE: For the HP Access Control (HP AC) Job Accounting administrator: Read the information presented on this page carefully. Only the proper system configuration will produce accurate query results.

4.5 License

This section provides information about HP Access Control (HP AC) Job Accounting license status.

4.5.1 Licensing details

The first 30 days of an installation can be used for evaluation purposes. This field also allows you to check your license status with Hewlett-Packard. Currently, there are three possible licensing options, determined by the number of users. For specific information regarding HP Access Control (HP AC) Job Accounting licensing, contact Hewlett-Packard Company.

Figure 4-5 View license information



License	
Version	Evaluation Version
Status	Evaluation period
HP Access Control Job Accounting installation date	2008-03-24
Expiration date	2008-04-23
Remaining days	18

4.6 User

This section provides information about individual accounts, such as user name, the date of last connection, and the number of jobs:

- Completed queries (queries for which a result is available)
- Launched queries (queries running and for which a result is expected)
- Scheduled queries (queries planned but not yet run)
- Errors in queries (queries aborted due to error)

4.7 Missing information

HP Access Control (HP AC) Job Accounting automatically detects any new elements added to the print system, whether it is a printer, media, a user, or another element. However, some information regarding these new elements (for example, the cost of the new printer) must be defined by the administrator in order to ensure the accuracy of query results.

 **NOTE:** It is the HP Access Control (HP AC) Job Accounting administrator's responsibility to view this page to update the HP Access Control (HP AC) Job Accounting configuration on a regular basis. HP Access Control (HP AC) Job Accounting users are not notified to update parameters surrounding elements added to the print system.

The fields in the Missing Information section are:

- **Costs to define printers:** list the printers with undefined costs. This applies to any new printer added to a print server.
- **Costs to define media:** list the media with undefined cost. This applies to any printed document, initiated by any user, regarding a media that is not registered in HP AC Job Accounting.
- **Exchange rates to define:** list the currencies with no exchange rate regarding the reference currency (the currency set as default while installing HP AC Job Accounting).

The number of data to enter is specified in front of each field. Each line in these fields is active—click on any of them to reach an element summary table for the missing information:

Figure 4-6 Element summary table



Costs to define: media
A5 (5.83x8.27 in) Paper

The elements of each line are also active. Clicking on an element allows direct access to costs and exchange rates associated with the installation.

4.8 Miscellaneous

A warning similar to the figure below appears when cookies or JavaScript are disabled.

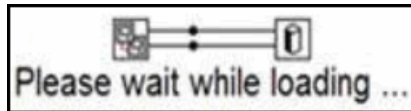
Figure 4-7 Browser warning message



When this occurs, HP Access Control (HP AC) Job Accounting may close abruptly or display false or out-of-date data. To prevent this from occurring, simply enable cookies and JavaScript in your browser.

The message shown in the figure below may appear at the top of your screen:

Figure 4-8 New data is loading



This message indicates that print job costs are being updated after cost parameters were modified. As soon as the calculations are performed, this message disappears.

HP Access Control (HP AC) Job Accounting has three distinct user categories:

- **HP Access Control (HP AC) Job Accounting users**
These users have an HP Access Control (HP AC) Job Accounting account. They can launch queries and get query results (on costs, printed documents) and be informed on the print system.
- **HP Access Control (HP AC) Job Accounting administrators**
These users have an HP Access Control (HP AC) Job Accounting account and the ability to launch queries or gather statistics about the print system. Furthermore, HP AC Job Accounting administrators are able to manage other HP AC Job Accounting accounts, currencies, exchange rates, user permissions, etc.
- **HP Access Control (HP AC) Job Accounting allocation super user**
These users have an HP Access Control (HP AC) Job Accounting account. They can launch queries and obtain query results (on costs, printed documents) and be informed on the print system. They can also view and modify allocation information stored in the database.

4.9 HP Access Control (HP AC) Job Accounting interface

The HP Access Control (HP AC) Job Accounting interface is easy to use, with its Remote Control panel and user-friendly buttons and icons for fast navigation through various functions.

4.9.1 Information

Every HP Access Control (HP AC) Job Accounting icon is context-sensitive. When the cursor is positioned for several seconds on an icon, a description of the action associated with the icon will appear.

Lists and pull-down menus are built dynamically, according to what is declared/registered in HP Access Control (HP AC) Job Accounting. For instance the printers, print servers, media, and currencies are all updated based on information contained in other tables. You can use the Ctrl and Shift keys to choose multiple entries in a list.

4.9.2 Functionalities

Specific icons allow you to reach a certain page or service. By clicking on any button in the HP Access Control (HP AC) Job Accounting Remote Control panel, you will be able to access information and to launch certain tasks. When more than one page of information is generated, the page navigation bar illustrated in the figure below appears at the bottom of each page:

Figure 4-9 Page navigation bar



To reach a specific page, click the first page number in the bar and type the number of the page you want to reach:

Figure 4-10 Navigate to specific page



4.9.3 Managing HP Access Control (HP AC) Job Accounting lists

HP Access Control (HP AC) Job Accounting lists can be managed in any of the following ways:

- To select one or several elements of a list, check the box on the left of the element (such as account or query).

 **NOTE:** The box in the title bar selects all elements of the list.

- To delete an item, select one or more from the list and then click the Delete icon located in the title bar.

Figure 4-11 Delete icon



 **NOTE:** Be sure to select the elements before deleting.

- To modify the parameters of an element in the list, click the Modify icon.

Figure 4-12 Modify icon



 **NOTE:** It is only possible to modify one element at a time.

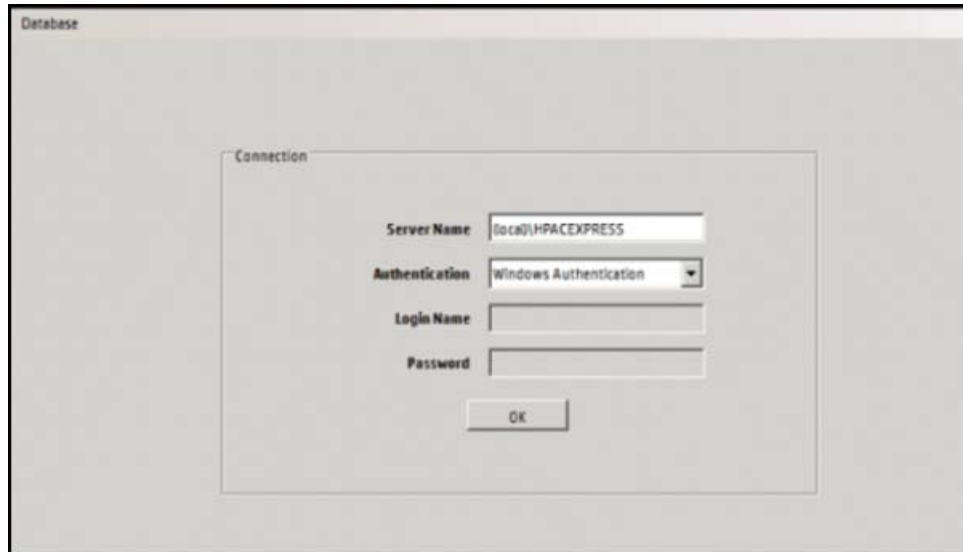
4.10 Database Manager

The Job Accounting Database Manager is a simple tool for managing the Job Accounting database. It is not intended to replace any SQL Management Tools that are included with SQL Server.

 **WARNING!** Please make sure the database is backed up prior to applying any changes to the database.

Go to the **Job Accounting** tile > **Database Manager** tab.

Figure 4-13 Database Manager login



In the **Server Name** field, make sure to include the instance name if you used a named instance of SQL. Enter the correct logins credentials. Click **OK**.

WARNING! If you delete any item in the database, any record relating to the deleted item is also deleted. For example, if you delete a print server from the database, all printers and jobs from the print server are deleted.

To view SQL queries, go to the **Database** menu and select **SQL Query**.

In the **Database Manager**, select items you want to delete:

- Select **Print servers** to delete a selected print server, including all printers and jobs assigned to it.
- Select **Printers** to delete a selected printer and all jobs assigned to it.
- Select **Domains** to delete a selected domain, including all users and jobs assigned to it.
- Select **Users** to delete a selected user and all jobs assigned to the user.
- Select **Allocation** to delete a selected allocation profile and jobs assigned to it.
- Select **Jobs** to delete jobs within a selected date range.

5 HP Access Control (HP AC) Job Accounting administration

Use the HP Access Control (HP AC) Job Accounting Administration page to add, delete, or modify HP Access Control (HP AC) Job Accounting functions and parameters. HP Access Control (HP AC) Job Accounting administration is divided into two parts:

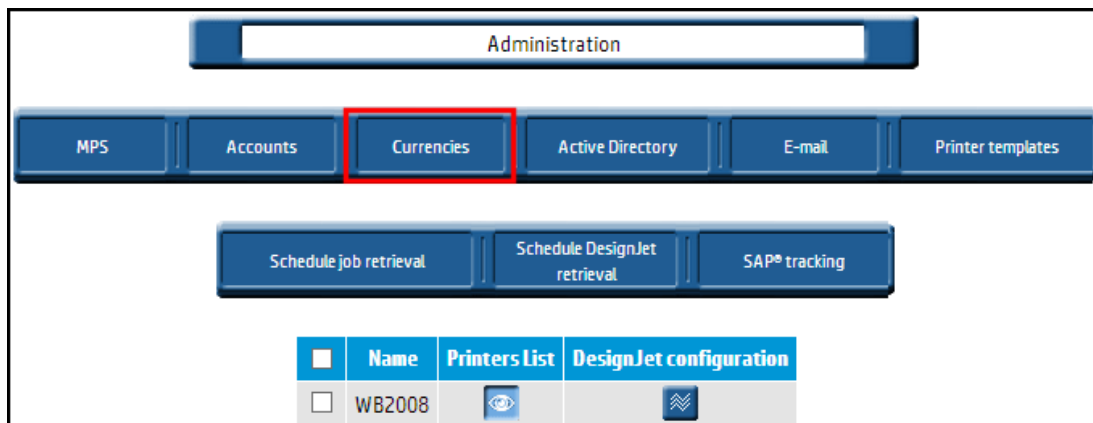
- The HP Access Control (HP AC) Job Accounting administrator assigns and configures individual accounts; including HP Access Control (HP AC) Job Accounting accounts, currencies used in the application, and email system.
- The HP Access Control (HP AC) Job Accounting administrator defines the costs and prices (such as printers and media), which will affect query results.

This chapter focuses on all issues regarding HP Access Control (HP AC) Job Accounting print server, accounts, currencies, active directory, the email system, and printer templates. All administration operations will be performed from this menu.

 **NOTE:** The Administration menu only appears in the HP Access Control (HP AC) Job Accounting remote control if you have Administrator rights.

Access the Administration screen by clicking **Administration** on the HP Access Control (HP AC) Job Accounting remote control, as shown in the figure below:

Figure 5-1 Administration page



	Name	Printers List	DesignJet configuration
☐	WB2008		

5.1 Accounts options

To access the HP Access Control (HP AC) Job Accounting Accounts options, click **Accounts** on the Administration screen.

Figure 5-2 Accounts page

☐	User name	Access rights	Language	Currency name	Modify parameters
☐	ABS	Administrator	English	US dollar	
	Admin	Administrator	English	US dollar	
☐	Adriana	Administrator	Spanish	US dollar	
☐	ajanyseva	Administrator	English	US dollar	
☐	AI	Administrator	English	Euro	
☐	alsi	Administrator	Spanish	Euro	
☐	Altab	Administrator	English	US dollar	
☐	ana.ma.molina@hp.com	User	English	US dollar	
☐	Banxico	User	English	US dollar	
☐	basell	User	English	cur_PLN	

This page provides information on the various accounts in the system, and allows the administrator to create new accounts or modify existing ones.

The first time you access HP Access Control (HP AC) Job Accounting, one of your initial tasks will be to define HP Access Control (HP AC) Job Accounting access accounts so that HP Access Control (HP AC) Job Accounting users and administrators can use the Web interface.

5.2 Create an account

When creating a new account, determine whether the account owner will be granted administrator privileges.

1. Click **Create an account**.
2. Enter a unique user name.
3. Enter your password and then confirm it by entering it again. For security reasons, passwords are masked.

NOTE: Passwords are case sensitive

4. To give administrator rights to the account owner, check the **Administrator** box.

5. Click the Go  icon to validate the account, or the Cancel  icon to reject it and stop the operation.

Figure 5-3 Go and Cancel icons



This account has the language and currency attached by default to the Admin account. For more information on changing the language and currency, see the HP Access Control (HP AC) Job Accounting user options section of this guide.

5.3 Modify an account

Administrators can modify the password or the access rights attached to a user name. You may find this function useful when reinitializing an account password.

 **NOTE:** It is possible to modify only one account at a time.

- To modify account information, click the Modify  icon.
- To change the password, enter the password, and then enter the password again to confirm it.
- To grant or withdraw administration rights, check or uncheck the **Administrator** box.

 **NOTE:** The access rights of an Admin account cannot be changed.

- Click the Go  icon to accept the modification, or the Cancel  icon to reject it and stop the operation.

5.4 Delete an account

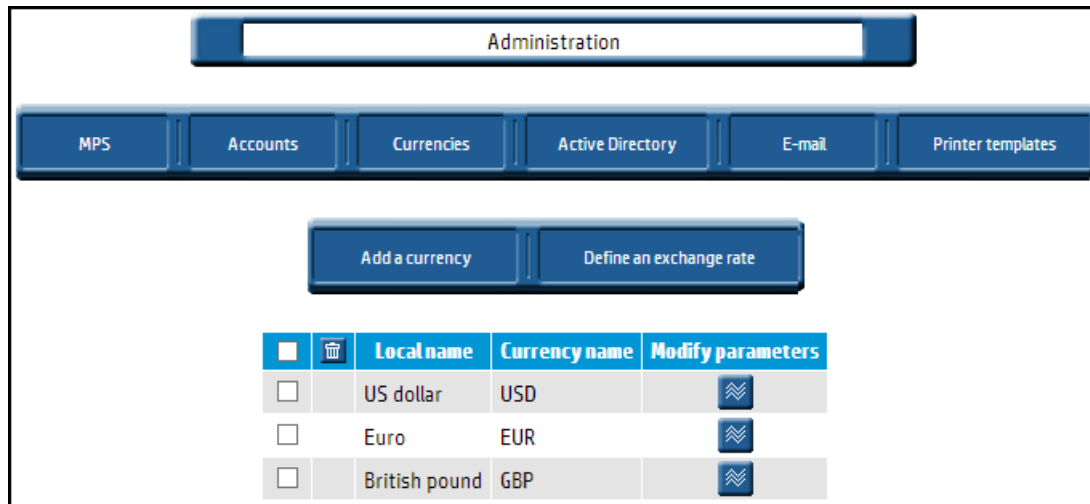
To delete an account, check the box corresponding to the user account you want to delete. Click the **Delete** icon. You will be asked to confirm the deletion before the account is removed.

 **TIP:** You can delete several accounts in one operation.

5.5 Currencies

To view defined currencies, add a currency, or define a currency exchange rate, click **Currencies** on the Administration page.

Figure 5-4 Administration page: Currencies button



This page lists all currencies defined in HP Access Control (HP AC) Job Accounting and provides their acronym. These currencies may be used in HP Access Control (HP AC) Job Accounting to display costs for elements such as printers, media, or jobs.

A currency will ultimately express a cost associated with a given printer. Each time a new cost is entered by an HP Access Control (HP AC) Job Accounting administrator, the default currency for this cost is the same as the currency associated with the current administrator. You can modify the currency, which is attached by default to each HP Access Control (HP AC) Job Accounting user and administrator in the User options. For more information, see the *HP Access Control (HP AC) Job Accounting user options* section of this guide.

HP Access Control (HP AC) Job Accounting contains the following default currencies:

- US dollar
- European Euro
- British pound



NOTE: You may delete any currency, as long as it has not been used to express a cost.

5.5.1 Add a currency

Forms of currency are entered in **Add a currency**. To add a currency, complete the following steps:

1. From the Currencies page, click **Add a currency**.

Figure 5-5 Add a currency



2. Specify the new currency name and acronym (Example: USD for a US dollar).
3. Click the Go  icon to add the currency, or the Cancel  icon to stop the operation.

5.5.2 Define an exchange rate

An exchange rate must be associated with each currency. All exchange rates are set to “0” by default.

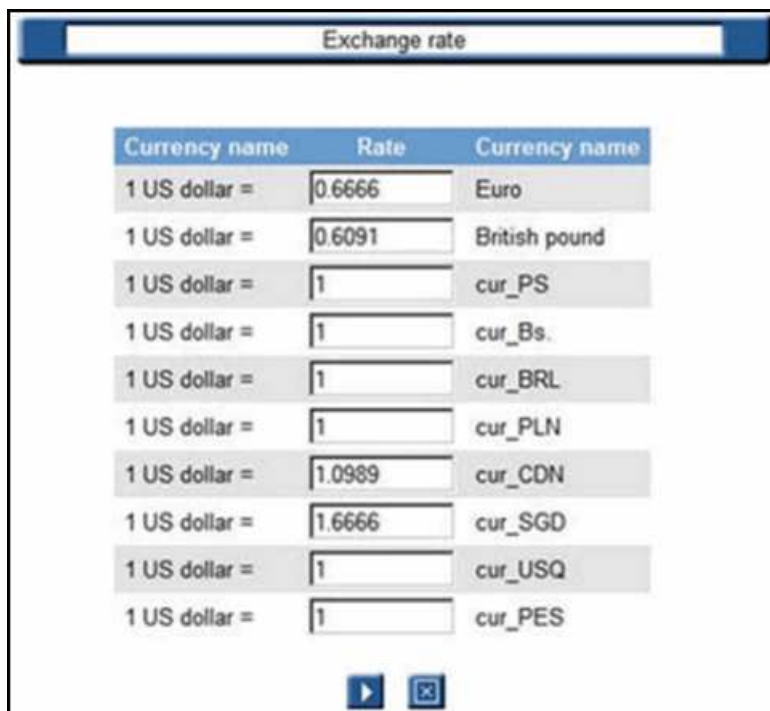


NOTE: You must define an exchange rate for the new currency, or all costs expressed in the new currency will be incorrect.

Use the following steps to define an exchange rate:

1. On the Currencies page, check the box beside a currency to select it.
2. Click **Define an exchange rate**.

Figure 5-6 Define exchange rate



Currency name	Rate	Currency name
1 US dollar =	0.6666	Euro
1 US dollar =	0.6091	British pound
1 US dollar =	1	cur_PS
1 US dollar =	1	cur_Bs.
1 US dollar =	1	cur_BRL
1 US dollar =	1	cur_PLN
1 US dollar =	1.0989	cur_CDN
1 US dollar =	1.6666	cur_SGD
1 US dollar =	1	cur_USQ
1 US dollar =	1	cur_PES

3. Enter the exchange rate for the currency.
4. Click the Go  icon to accept the defined exchange rate, or the Cancel  icon to stop the operation.

5.6 Delete an exchange rate

To delete an exchange rate, complete the following steps:

1. On the Currencies page, check the box beside a currency to select it.
2. Click **Define an exchange rate**.
3. Enter **0** in the field beside the currency, for the exchange rate you want to delete.

5.7 Modify a currency

To modify a currency name or acronym, complete the following steps:

 **NOTE:** You can modify only one currency at a time. On the Currencies page, check the box beside a currency to select it.

1. Click the Modify  icon to access Modify a currency screen.

Figure 5-7 Modify a currency



2. Enter a **New currency** name or **New local name** in the designated fields.
3. Click the Go  icon to save the modifications, or the Cancel  icon to stop the operation.

 **NOTE:** You do not have to redefine the exchange rate for a modified currency.

5.8 Delete a currency

Use the following steps to delete a currency:

1. On the Currencies page, check the box beside a currency to select it.

2. Click Delete .

Figure 5-8 Delete a currency



3. Click the Go  icon to delete the currency, or the Cancel  icon to stop the operation.

 **TIP:** You can delete several currencies at a time.

 **NOTE:** The exchange rates attached to a deleted currency are automatically deleted.

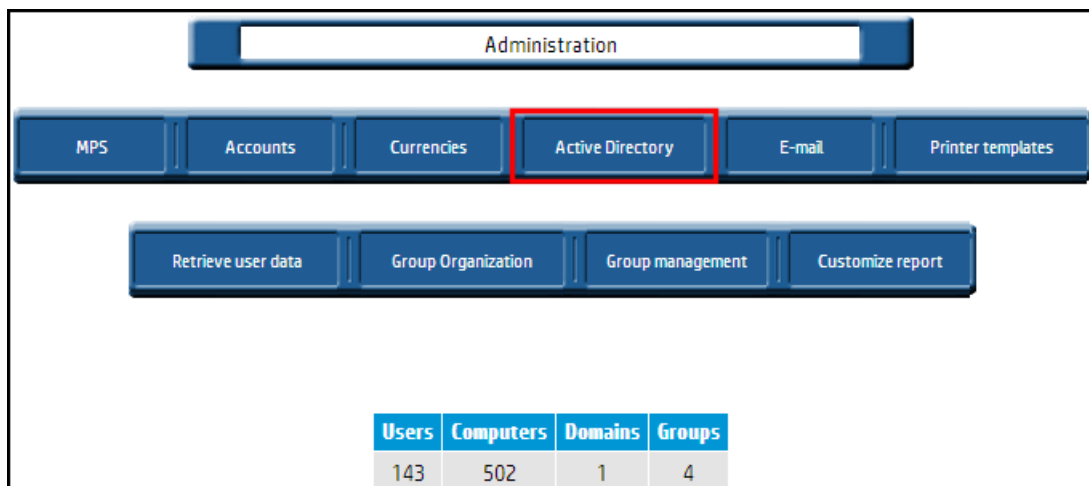
5.9 Active Directory

Information regarding users, groups, domains, and computers is collected the first time a user is detected in the database. If no network scan has been performed, only the users printing with the HP Access Control (HP AC) Job Accounting print server will be stored in the database. After a network scan has been launched, the information pertaining to users, groups, domains, and computers is stored in the database.

On the Active Directory screen, the administrator can create new HP Access Control (HP AC) Job Accounting groups, which are processed like standard network groups. If a user belongs to several groups, assign the user to a group and obtain user information through various queries.

To access the Active Directory options, click **Active Directory** on the Administration page.

Figure 5-9 Active Directory



The Active Directory displays the total number of users, computers, domains, and groups that are currently tracked. These numbers will change according to the data detected on your network. The data is refreshed once every 30 seconds.

From Active Directory, the administrator can perform the following tasks:

- Click **Retrieve user data** to launch the search.
- Click **Group organization** to add, delete, or organize groups.
- Click **Group management** to manage groups and user assignments to groups, to charge them based on printing activity.
- Click **Customize report** to add and define columns in your queries. The summary report is not affected.

HP Access Control (HP AC) Job Accounting allows you to retrieve and use data regarding individual print system users. This data, also called Active Directory in the Windows system (ADSI), reports the user's group and domain, if any. Data such as the user's first and last name, the name and operating system of the machine, and the user's declaration in the system are also given based on information previously entered by an administrator.

This user data enables accurate monitoring of print costs over a network. Individual users are charged for printing costs, rather than costs associated with a particular workstation. For companies with a large user base, individual accounts should be placed in different groups or domains, depending on the internal organization. User queries can be launched by specifying a Windows domain, limiting the scope of your query. Using this method produces faster, more precise results.



NOTE: Active Directory only supports Domain Controller on Windows 2000, 2003, and 2008. pDC on Windows NT 4.0 is not supported.

You can add this data to your HP Access Control (HP AC) Job Accounting database using automatic or manual retrieval. To enable automatic database updates you should have the necessary network permissions, which can only be applied by the network administrator. These rights should be registered before any printing or manual data retrieval.

5.10 Retrieving user data

User data can also be manually retrieved by the HP Access Control (HP AC) Job Accounting administrator.

1. Click **Retrieve user data** to launch this operation.

Figure 5-10 Retrieve user data

Users	Computers	Domains	Groups
143	502	1	4

Affected domain (Netbios name)

DNS Name

User name

Password

Scan type ☒ Complete ☐ Group ☐ Computer

Group Organization

2. Choose a specific **Affected domain** to scan.

You can also specify the login and password of an HP Access Control (HP AC) Job Accounting administrator for the defined domain of your print system. For security purposes, the password is encrypted and not visible.

 **NOTE:** Passwords are case-sensitive.

 **NOTE:** HP Access Control (HP AC) Job Accounting uses this identification to research users on the network. The user performing the scan must have administrator rights in each affected domain—be aware of any firewalls that may block the scan.

 **NOTE:** If no login or password is entered, HP Access Control (HP AC) Job Accounting verifies the network authorizations of the machine from which the search was initiated.

3. Limit the scope of information scanned by choosing **Computer** or **Group** in the options list of the Scan type field.

The Computer option allows the retrieval of various computers and users. The Group option allows retrieval of various groups, as well as all attached users. Complete scan retrieves all information related to your domain by taking into account all levels of your system. This last option is selected by default.

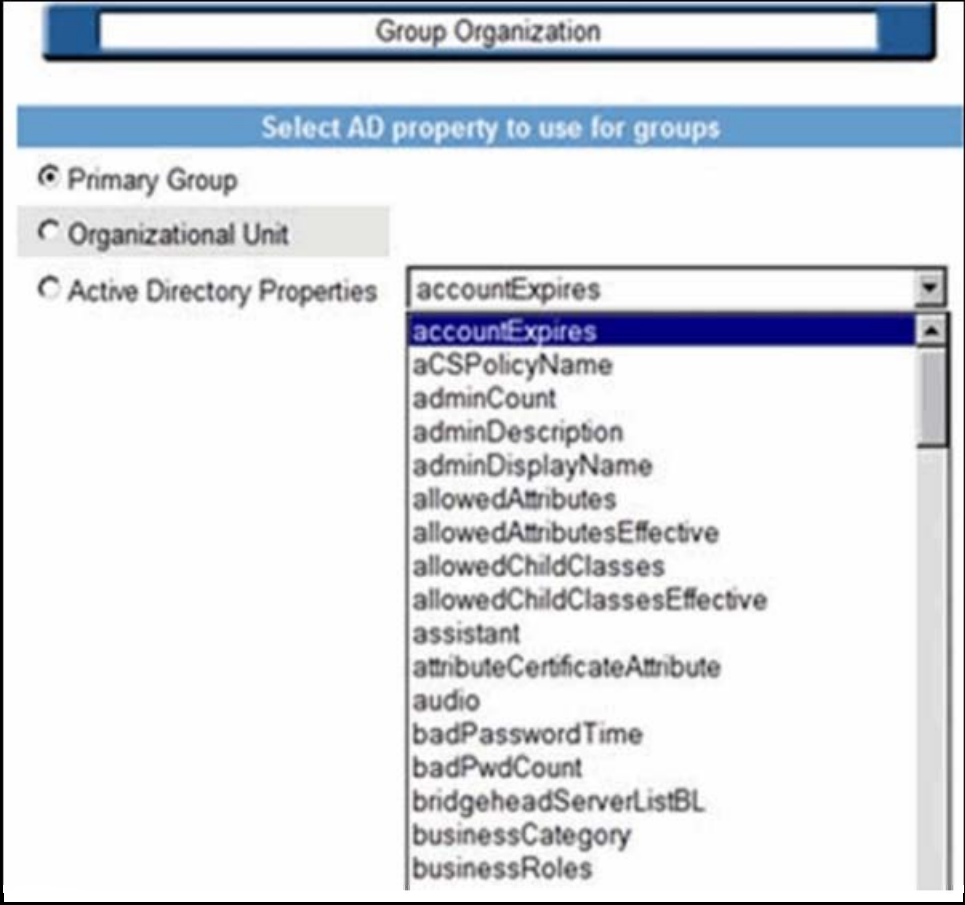
4. Click the Go  icon to accept the process, or the Cancel  icon to stop the operation.

 **NOTE:** This operation must be performed for each domain of the print system. Each new user or group in any domain is automatically added to the HP Access Control (HP AC) Job Accounting database. All lists and drop-down menus that summarize end users, machines, groups, and domains existing in the NT system are automatically created and updated in the HP Access Control (HP AC) Job Accounting interface, if the user has printed. For more information on these parameters, see the *Parameterize queries* section of this guide.

5.11 Group Organization

Group Organization defines which Active Directory property to use to query group activity and costs for each user. The three options for organization are Primary Group, Organizational Unit, or Active Directory Properties.

Figure 5-11 Group Organization



Primary Group and Organizational Unit (default OU is Users) are the standard Active Directory properties.

Active Directory Properties allow for the selection of available AD properties; or a property can be specified by entering a valid AD property as text. If the option is configured on the HP Access Control (HP AC) Job Accounting Server, and security has been configured to disable Anonymous access on the HP Access Control (HP AC) Job Accounting web site in the IIS console, a list of AD properties populates a drop-down list. Otherwise, only an input field displays and the property must be supplied as text input.

 **NOTE:** A complete network scan must be launched to update the database if **Organizational Unit** or **Active Directory Properties** is selected.

5.12 Group management

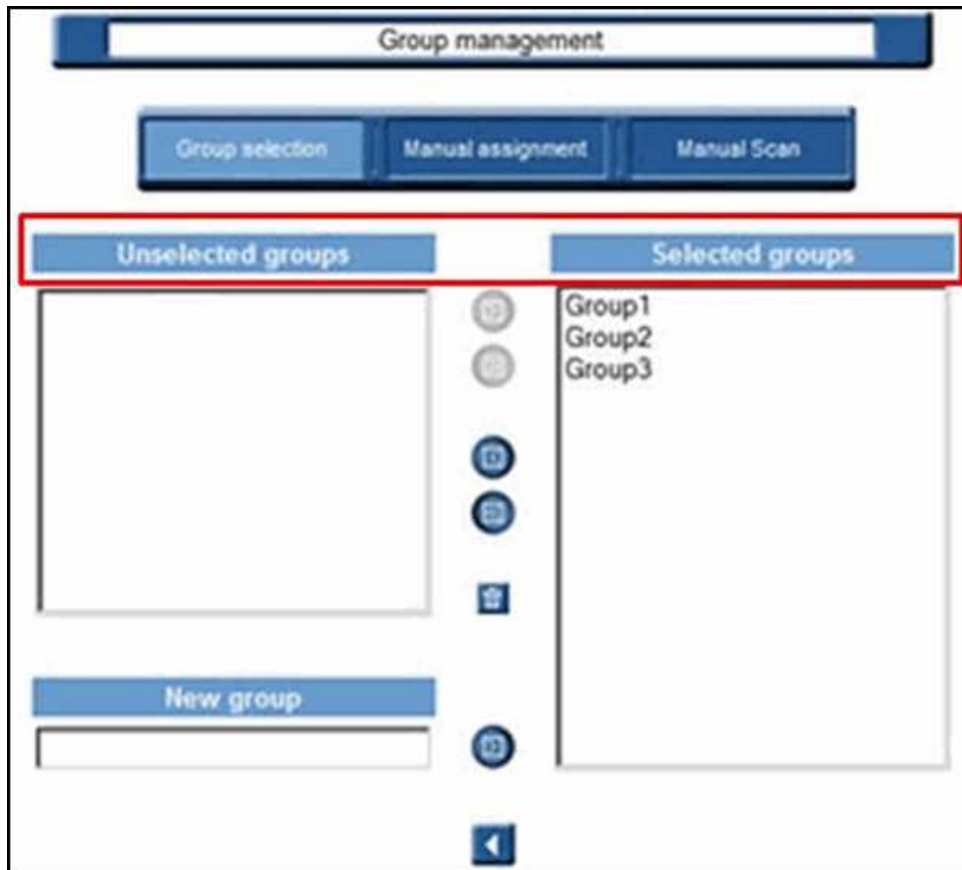
Group management defines how print jobs are allocated to the groups of your network, which affects the result of some queries and modifies the printing cost charges per group user.

A single user may belong to several groups. For example, a user can belong to the Development group, the Accounting group, and the Management group. The user can be attached to one specific group or several, if desired. Each user could be assigned to a favorite group. In this manner, all printing activity related to a user

is counted only once, and not twice or three times, as is the case when the user belongs to several groups. To set up this feature you will first need to choose a domain. Use the following steps to manage groups:

1. Click **Group management** on the “Active Directory” page.
2. Choose a Domain.
3. Click the Go  icon to continue to the **Group selection** menu:

Figure 5-12 Group selection

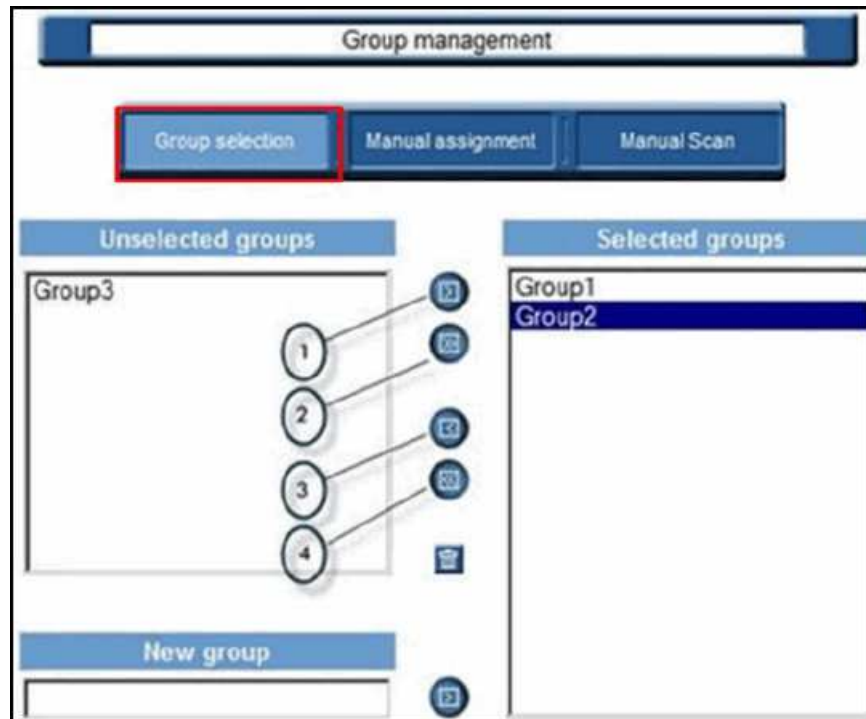


5.13 Group management functions

The **Group selection** window displays all the groups that have been automatically detected by HP Access Control (HP AC) Job Accounting, and new groups that have been created manually. These new groups appear highlighted in light blue.

Use icons to manage groups:

Figure 5-13 Group management icons



¹ The right-arrow icon moves a group from the **Unselected groups** field to the **Selected groups** field. You also can select many groups by holding the Ctrl key while making selections.

² This icon moves all groups from **Unselected groups** to **Selected groups**.

³ The left-arrow icon moves a group from the **Selected groups** field to the **Unselected groups** field. You also can select many groups by holding the Ctrl key while making selections.

⁴ This icon moves all groups from **Selected groups** field to the **Unselected groups**.

The Delete  icon is used to delete the manually created groups.

To remove any automatically-detected groups that are unnecessary, select them and click the left-arrow icon. They are added to the **Unselected groups** field. This action allows them to be retrieved later if needed.

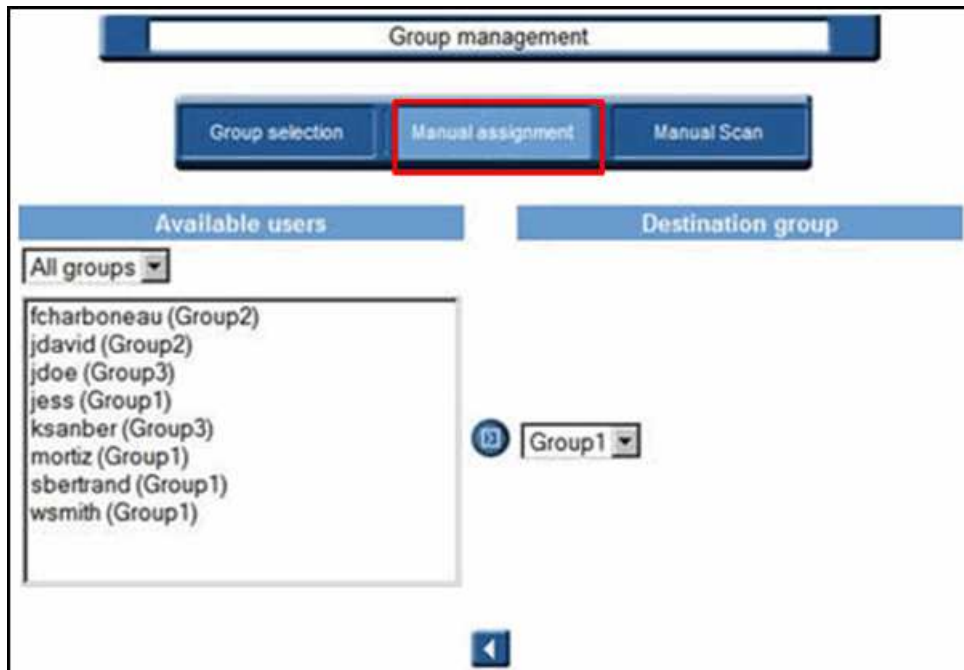
The **New group** field allows the creation of custom groups. Enter the name of the new group and add it to the **Selected groups** window by clicking the right-arrow icon. The new group is highlighted in light blue.

Following are the rules of selection:

- By default, all groups are selected (they appear in the “Selected groups” window).
- You can create and delete groups you have created manually.
- You cannot delete groups detected by the system as active (Active Directory).
- If you delete a group with users still attached, they are moved to the unspecified group.

- To assign users manually, click **Manual assignment** in “Group management”:

Figure 5-14 Manual assignment



A list of users is displayed. You can only reveal the users of one particular group at a time, but it is possible to see all users of all groups. In this case, the current assigned group is indicated between brackets for each user.

You can choose a new destination group for each user. Select one or many users, and then select a new destination group and click the right-arrow icon to assign the selected users to this new group. As a result of selecting a specific group, a query is launched including the users who have just been assigned.



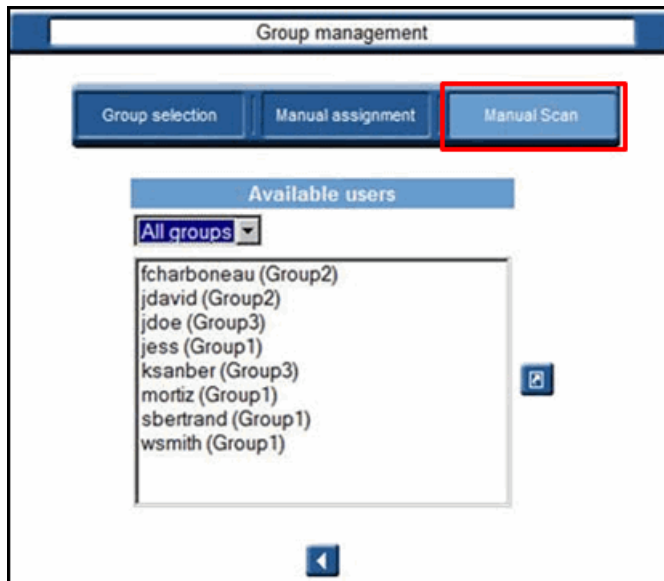
NOTE: This assignment is recommended for environments with a small number of users.

5.14 Manual Scan

On large networks, performing scans for new users can be a time-consuming process. After adding a new user or making a change to an existing user, the **Manual Scan** option can quickly update the system.

1. Click **Manual Scan** on the “Group management” page:

Figure 5-15 Manual scan



To limit the list size, use the drop-down menu to confine the results to specific network groups. Use the following steps to perform a “Manual scan”:

2. Select the new user from the list.
3. Click the Update  icon to update the selected user.

5.15 Customize reports

Use the **Customize Report** function to add data from any Active Directory field in a column within a user-generated report. Only queries reporting the user name see the additional columns.

1. Click **Customize report** on the “Active Directory” page to add and define new columns in your report.

Figure 5-16 Customize report



2. Define up to five columns:

- a. Enter the column name in the **Column** field.
- b. Select from the **Active Directory Properties** drop-down list to define the column. If the drop-down list can be populated, an input field displays (see Group organization > *Active Directory properties* sub-section of *Group organization* section of this manual for more details).

Figure 5-17 Customize report columns option

Columns	Active Directory Properties
Department	department
Email	mail
User	
	thumbnailLogo
	thumbnailPhoto
	title
	uid
	unicodePwd
	url
	userAccountControl
	userCertificate
	userParameters
	userPassword
	userPKCS12
	userPrincipalName
	userSharedFolder
	userSharedFolderOther
	userSMIMECertificate
	userWorkstations
	uSNChanged
	uSNCreated
	uSNSALastObjRemoved
	USNIntersite
	uSNLastObjRem
	uSNSource
	wbemPath
	wellKnownObjects
	whenChanged
	whenCreated
	wwwHomePage
	x121Address
	x500uniqueIdentifier

 **NOTE:** See *Perform a query > Modify display parameters* to display additional columns in the report.

5.16 Email

The email system defines both individual email addresses and distribution lists. The system provides all HP Access Control (HP AC) Job Accounting users and administrators with a choice of email recipients. An email server should also be configured to send query results using email (a proxy server and the SNMP port associated).

To create addresses and lists and configure the email server, click **Email** on the Administration page.

Figure 5-18 Email configuration



The HP Access Control (HP AC) Job Accounting email system enables HP Access Control (HP AC) Job Accounting users to send query results using electronic mail as the delivery mechanism.

Email data (addresses, lists and server), if already defined, appears on the screen. The SMTP address of the email server is displayed. You can create the addresses and distribution lists using the task bar at the top of the page.

 **NOTE:** Query results can only be sent in Comma-Separated Value (CSV) format.

To send your query results using email you must have all of the following:

- A properly configured email server.

 **CAUTION:** To configure an email server you need some parameters that may be confidential. Only your network administrator may have access to this information.

- A sender. The sender's address can be defined in the User options. This operation is mandatory. Any HP Access Control (HP AC) Job Accounting user or administrator can define their address. For more information on this operation, see the HP Access Control (HP AC) Job Accounting user options section of this guide.
- Recipients for query results. For more information on this operation, see the *Query results* section of this guide.

 **NOTE:** No verification is performed on email addresses (such as access, validity, or entry). These addresses will only be used when results are sent. Contact your system administrator to confirm that email messages have been sent and received. If an error occurs, you will have to correct the HP Access Control (HP AC) Job Accounting addresses.

HP Access Control (HP AC) Job Accounting contains an address book, which consists of recipient addresses and recipient lists. You should first define individual addresses, and then create lists with these addresses.

5.17 Create an email address

This operation is not mandatory. Email addresses can be defined when launching a query. For more information, see the *Parameterize queries* section of this guide.

Use the following steps to create an email address:

1. From the Email screen, click **Create an address**.

Figure 5-19 Create an address



2. Enter the email address in the usual format: xxxxxx@xxxxxx.xxx
3. Click the Go  icon to accept the address, or the Cancel  icon to reject it and stop the operation.

 **NOTE:** All fields can contain up to 127 characters, symbols, and figures.

5.18 Modify an email address

Use the following steps to modify an existing address:

1. On the Email page, select the email address you want to modify.
2. Click the Modify parameters  icon to display the **Modify an address** page.

Figure 5-20 Modify an address



3. Click the Go  icon to accept the modifications, or the Cancel  icon to reject it and stop the operation.

5.19 Delete an email address

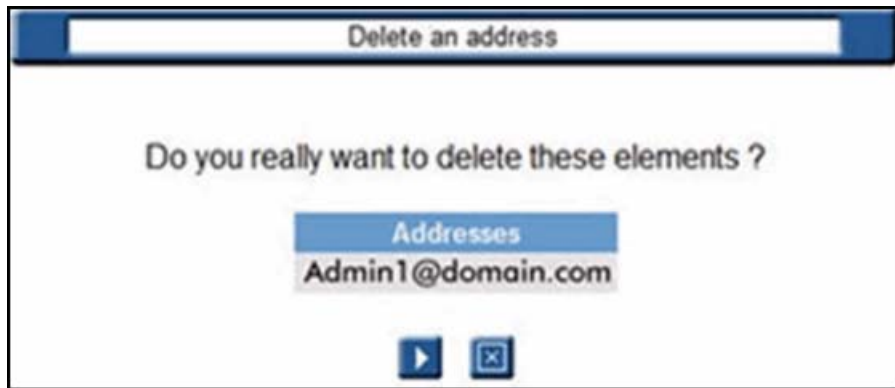
To delete an email address, complete the following steps:

1. Select the address you want to delete in the Addresses section.

2. Click the Delete  icon.

 **NOTE:** To avoid an error, confirm that you want to delete the address.

Figure 5-21 Confirm deleted address



3. Click the Go  icon to accept the address deletion, or the Cancel  icon to reject it and stop the operation.

 **CAUTION:** This operation cannot be canceled after it has been accepted.

5.20 Distribution lists

A distribution list consists of several email addresses grouped together. You can create a list of addresses, and assign a name to the list. Then to send an email to all addresses contained in the list, you just need to enter the assigned name of this list.

 **NOTE:** This operation is not mandatory. Email addresses can be defined while launching individual queries. For more information, see the Parameterize queries section of this guide.

5.20.1 Create a distribution list

To create an email distribution list, complete the following steps:

1. From the Email page, click **Create addresses from lists**.

2. At the top of the screen, click **Distribution lists**.

Figure 5-22 Create distribution list



The screenshot shows a dialog box for creating a distribution list. At the top, there are two tabs: 'Addresses' and 'Distribution lists'. The 'Name' field is labeled 'Name' and contains the text 'DocTest'. The 'E-mail address' field is labeled 'E-mail address' and contains the text 'Name@domain.com'. At the bottom, there are two buttons: a 'Go' button (represented by a right-pointing arrow) and a 'Cancel' button (represented by a square with an 'X').

3. Enter a name for the list in the **Name** field. All existing individual email addresses appear in the **Email address** field.

 **TIP:** You can enter up to 127 characters, symbols, and figures.

4. To create a list, select an email address. To select more than one address, hold down the Ctrl and Shift keys while selecting.
5. Click the Go  icon to accept the list creation, or the Cancel  icon to reject it and stop the operation.

5.20.2 Modify a list

To modify a Distribution list, complete the following steps:

1. Check the box to select the Distribution list you want to modify.

Figure 5-23 Modify Distribution list



The screenshot shows the 'Administration' console. At the top, there is a search bar labeled 'Administration'. Below it, there are several tabs: 'MPS', 'Accounts', 'Currencies', 'Active Directory', 'E-mail', and 'Printer templates'. The 'E-mail' tab is selected. Below the tabs, there are two buttons: 'Create addresses and lists' and 'Configure the e-mail server'. The 'Configure the e-mail server' button is selected. Below the buttons, there is a section titled 'E-mail server' with the IP address '10.0.0.1'. Below this, there is a table with two columns: 'Distribution lists' and 'Modify parameters'. The 'Distribution lists' column has a checkbox next to 'DocTest', which is checked. The 'Addresses' column has a checkbox next to 'Admin1@domain.com' and 'User2@domain.com', which are unchecked. A red box highlights the 'DocTest' row in the 'Distribution lists' column.

2. Check Modify parameters  to open the **Modify a list** page.

Figure 5-24 Modify distribution list content



 **TIP:** You can modify the content of one or several fields by clicking on each field, and then entering the relevant information.

3. Click the Go  icon to accept the distribution list modifications, or the Cancel  icon to stop the operation.

5.20.3 Delete a list

To delete a list, complete the following steps:

1. Click to select the box next to the Distribution list you wish to delete.
2. Click the Delete  icon in the column heading(s).

Figure 5-25 Verify distribution list deletion



3. Click the Go  icon to accept the list deletion, or the Cancel  icon to stop the operation.

 **CAUTION:** This operation cannot be canceled after it has been accepted.

5.21 Configuring the email server

When setting up your email server, you must configure the outgoing SMTP mail and the port.

 **CAUTION:** This information may only be known by the network administrator.

 **NOTE:** You can only create one server configuration.

If the email server configuration has been defined, it will appear on your screen with its SMTP outgoing mail and port number. You will be able to create, modify, and delete your server configuration by using the task bar at the top of the page.

5.21.1 Configure the server

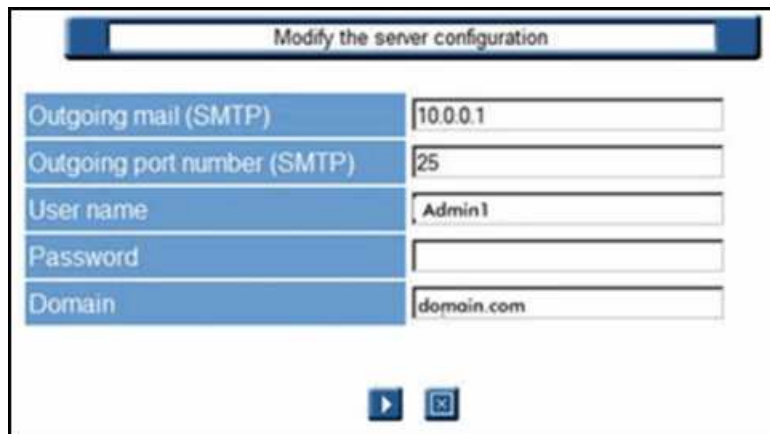
To configure the server, complete the following steps:

1. Click **Configure the email server**.

At Modify the server configuration,

- a. Enter the **Outgoing mail (SMTP)** information.
- b. Enter the **Outgoing port number (SMTP)**.
- c. Enter the **User name and Password**. This user name and password allows you to validate access to the email server.
- d. If a Domain is required, enter the **NETBIOS Domain** name.

Figure 5-26 Modify server configuration



2. Click the Go  icon to accept the configuration, or the Cancel  icon to stop the operation.

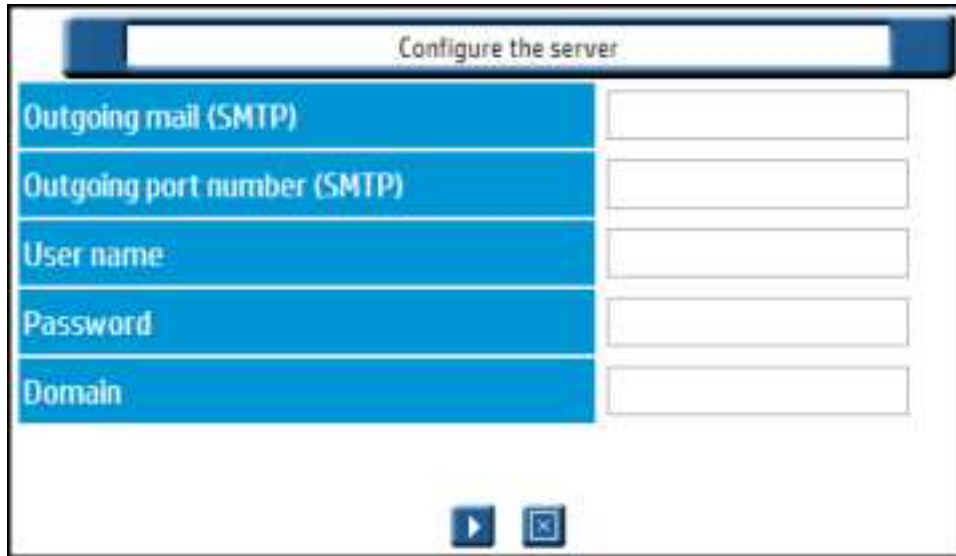
 **NOTE:** All configuration fields can contain up to 127 characters, symbols, and figures.

5.21.2 Modify the server configuration

To modify the server configuration, complete the following steps:

1. Click **Configure the email server**.

Figure 5-27 Configure email server



2. On the Configuration screen, modify the content of one or several fields by selecting each field to enter the relevant information.
3. Click the Go  icon to accept the configuration, or the Cancel  icon stop the operation.

5.21.3 Delete the server configuration

To delete the server configuration, complete the following steps:

1. Click **Configure the server**.
2. On the **Modify the server configuration** screen, delete the information entered in the fields.
3. Click the Go  icon to accept the configuration, or the Cancel  icon stop the operation.

 **CAUTION:** This operation cannot be canceled after it has been accepted.

5.22 Printer templates

With HP Access Control (HP AC) Job Accounting printer templates, you can define the costs associated with each model of printer and then apply that template to any printers declared on the HP Access Control (HP AC) Job Accounting print server. Printer costs can be managed and updated from one centralized interface.

HP Access Control (HP AC) Job Accounting allows you to define custom printer templates. A printer template contains various values related by default to a specific object type. For instance, a template for the HP LaserJet 9050 printer would contain all prices and costs associated with that printer, such as printer price, toner price, total number of printed pages, depreciation period, leasing cost, and maintenance cost.

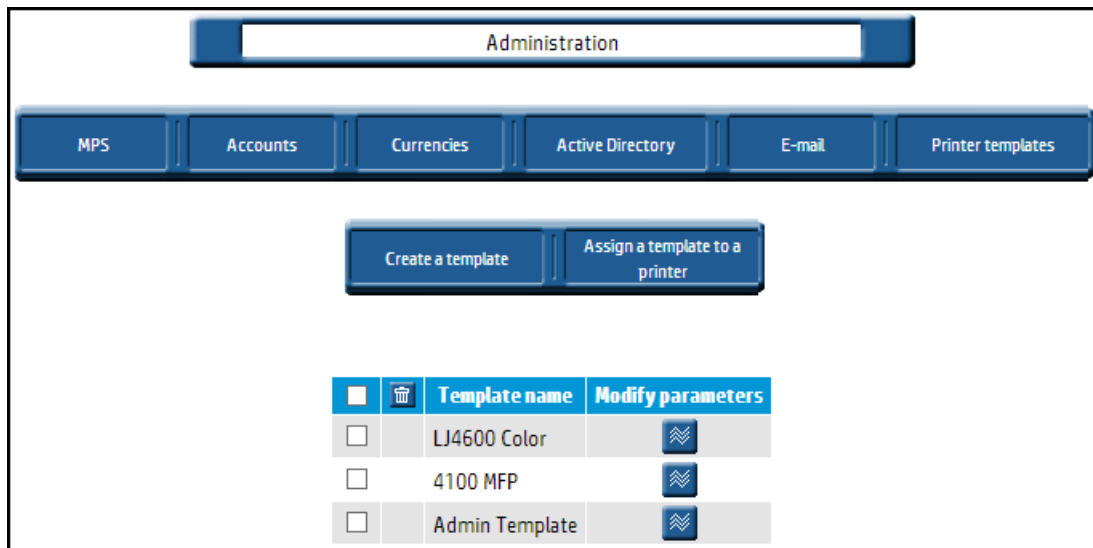
For more information on actual costs, see the *Manage print costs* section of this guide.

A template can be allocated to one or several printers. These printers will automatically inherit the values associated with this template as actual costs. You can manage your actual costs by clicking **Page cost management** in the HP Access Control (HP AC) Job Accounting remote control.

Any printer tracked by HP Access Control (HP AC) Job Accounting can be associated as the default, with a set of pre-defined prices and costs that are used when you launch cost queries.

To create a template, assign a template to a printer, modify a template, or delete a template, click **Printer templates** on the Administration page.

Figure 5-28 Printer template selections



The templates management task bar allows you to create a template or assign a template to a printer.

5.22.1 Create a printer template

To create a printer template, complete the following steps:

1. To begin template creation, click **Create a template** from the Printer templates page.

Figure 5-29 Create a template

Create a template	
Template name	
Printer cost	
Planned print volume (pages/year)	
Depreciation time (in years)	
Black toner cost	
Life of black toner cartridge (pages)	
Color toner cost	
Life of color toner cartridge (pages)	
Number of color cartridges	
Warranty cost	
Maintenance cost	
Leasing cost	
Miscellaneous cost	
Currency	US dollar

2. Enter the template name. *This is a required field.*
3. Enter the costs in fields provided, as desired.
4. Use the drop-down list in the **Currency** field to define the currency for your costs.
5. Click the Go  icon to accept the data, or the Cancel  icon to stop the operation.

 **NOTE:** Use a decimal point in costs (such as 20.00) and years as the unit of time.

 **NOTE:** You must provide information in the **Template name** field.

5.22.2 Assign a printer template

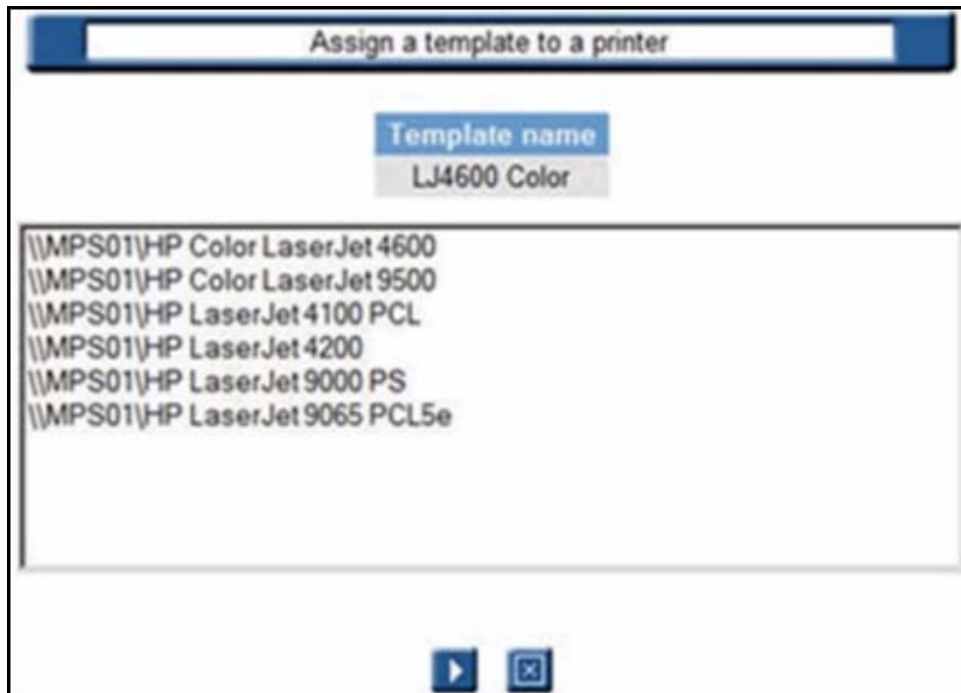
A single template can be assigned to a single printer or to several printers. However, the opposite is not true; several templates cannot be assigned to one printer.

To assign a template to a printer:

1. Select a template to assign.

2. Click **Assign a template to a printer**.

Figure 5-30 Assign a template



This page lists all printers tracked by HP Access Control (HP AC) Job Accounting on your print network. Each line in this list represents a printer in this format:

\\print server\printer.

The template name appears at the top of the page.

3. To assign the template, select a printer. To select multiple printers, use the Ctrl and Shift keys on your keyboard.
4. Click the Go  icon to accept the assignment, or the Cancel  icon to stop the operation.

5.22.3 Modify a printer template

You can modify all costs defined in your printer template. You cannot modify the template name. You can only modify one template at a time.

1. Select the template to modify.
2. Click the Modify  icon.
3. Modify your data as desired.
4. Click the Go  icon to accept the modifications, or the Cancel  icon to stop the operation.

 **NOTE:** If you entered a new printer price, it will dynamically appear in the printer costs. Any modification to a printer template will change the actual costs of this printer. HP Access Control (HP AC) Job Accounting will automatically re-calculate costs.

5.22.4 Delete a template

To delete a template, complete the following steps:

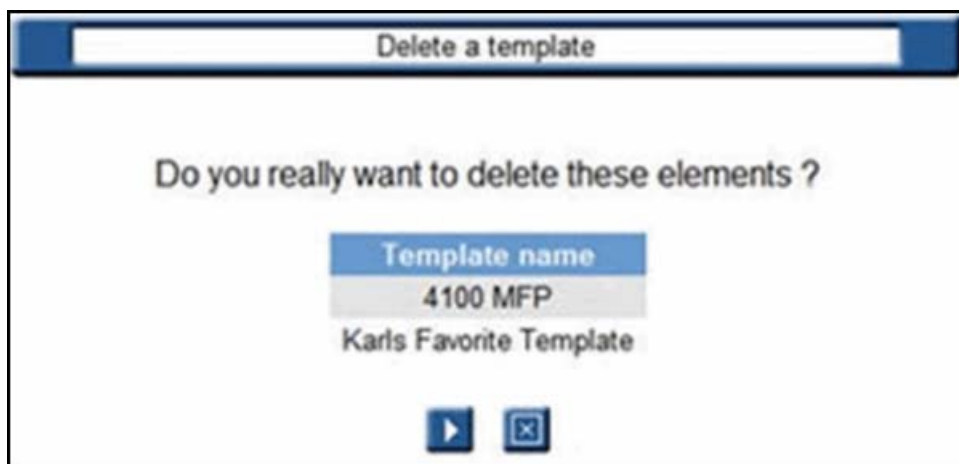
1. From the template management screen, select the template to delete.

Figure 5-31 Select templates to delete

		Template name	Modify parameters
☐		LJ4600 Color	
☒		4100 MFP	
☐		4600DTN	
☒		Karls Favorite Template	

2. Click the Delete  icon in the title bar of the list. The template appears on your screen.

Figure 5-32 Verify template selection



3. Click the Go  icon to accept the modifications, or the Cancel  icon to stop the operation.

 **CAUTION:** This operation cannot be canceled after it has been accepted.

6 Configuring data collectors

6.1 HP Access Control (HP AC) Agent

The HP Access Control (HP AC) Agent allows you to capture data directly from a network printer, and functions even if the HP Access Control (HP AC) Job Accounting print server direct tracking module is not installed. For more information and instructions to configure HP Access Control (HP AC) Agent, see the HP Access Control (HP AC) Agent Administrator Guide.

6.2 HP Statistics

HP Statistics is a method of capturing data directly from an HP FutureSmart printer.

 **NOTE:** All HP FutureSmart device administrator user names and passwords must match the Device administrator user name and password in the HP Access Control (HP AC) tool. Go to the **Settings** tile > **Device** tab of the HP Access Control (HP AC) tool to enter the Device administrator user name and password.

To select what device information you want to display in HP Access Control (HP AC) Job Accounting reports, go to the **Settings** tile > **Device** tab.

- Select **Device name** to display the device names in job accounting reports.
- Select **Network name** to display the host names of devices in job accounting reports. Make sure the **Get community name** is entered in the SNMP section to be able to read the network/host names of devices.

Click **Apply**.

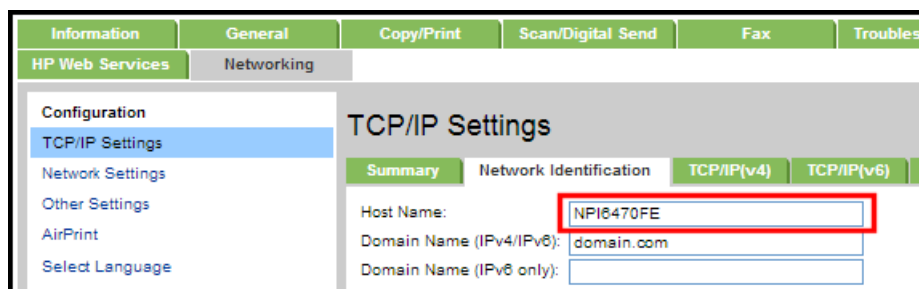
To configure an HP FutureSmart device for tracking, follow the steps below:

1. Go to the **Devices** tile.
2. Select the HP FutureSmart device from the device list, then click **Configure**.
3. Select **Tracking**. Click **OK**. An X displays under the Tracking column, indicating the HP FutureSmart device is configured for tracking.

When multiple FutureSmart devices of the same model have the same device name, only one device is reported in Job Accounting. Therefore, devices of the same model must have unique device names for correct tracking. To change the device's name to be the device's host name, follow the steps below:

1. Go to the **Networking** > **TCP/IP Settings** > **Network Identification** page of the device EWS to determine the Host Name of the device.

Figure 6-1 Device Host Name



The screenshot shows the HP Web Services (EWS) interface. At the top, there are tabs for Information, General, Copy/Print, Scan/Digital Send, Fax, and Troubleshooting. Below these, there are tabs for HP Web Services and Networking. The Networking tab is selected, and the left sidebar shows a list of configuration options: Configuration, TCP/IP Settings (highlighted), Network Settings, Other Settings, AirPrint, and Select Language. The main content area is titled 'TCP/IP Settings' and has sub-tabs for Summary, Network Identification (selected), TCP/IP(v4), and TCP/IP(v6). Under the Network Identification tab, there are three fields: Host Name (containing 'NPI6470FE' and highlighted with a red box), Domain Name (IPv4/IPv6) (containing 'domain.com'), and Domain Name (IPv6 only) (empty).

2. Go to the **General > Device Information** page. In the **Device Name** field, enter the device's Host Name. Click **Apply**.

Figure 6-2 Device Name

The screenshot shows the 'Device Information' configuration page. The 'Device Name' field is highlighted with a red box and contains the text 'NPI6470FE'. Other fields include 'Device Location', 'Asset Number', 'Company Name', 'Contact Person', 'Product Name' (HP Color LaserJet flow MFP M880), 'Device Model' (D7P71V), and 'Device Serial Number' (MX2CF8X0XS). The 'Apply' button is visible at the bottom.

After jobs are tracked and the XML files are processed, you will see all your devices listed in Job Accounting.

After the XML files are processed, you will see all your devices listed in Job Accounting.

6.3 HP Access Control (HP AC) Job Accounting print server

This portion of the Administration Module allows you to view the status of HP Access Control (HP AC) Job Accounting print server printers, as well as schedule job retrievals for printers configured as tracked printers on a print server, and DesignJet.

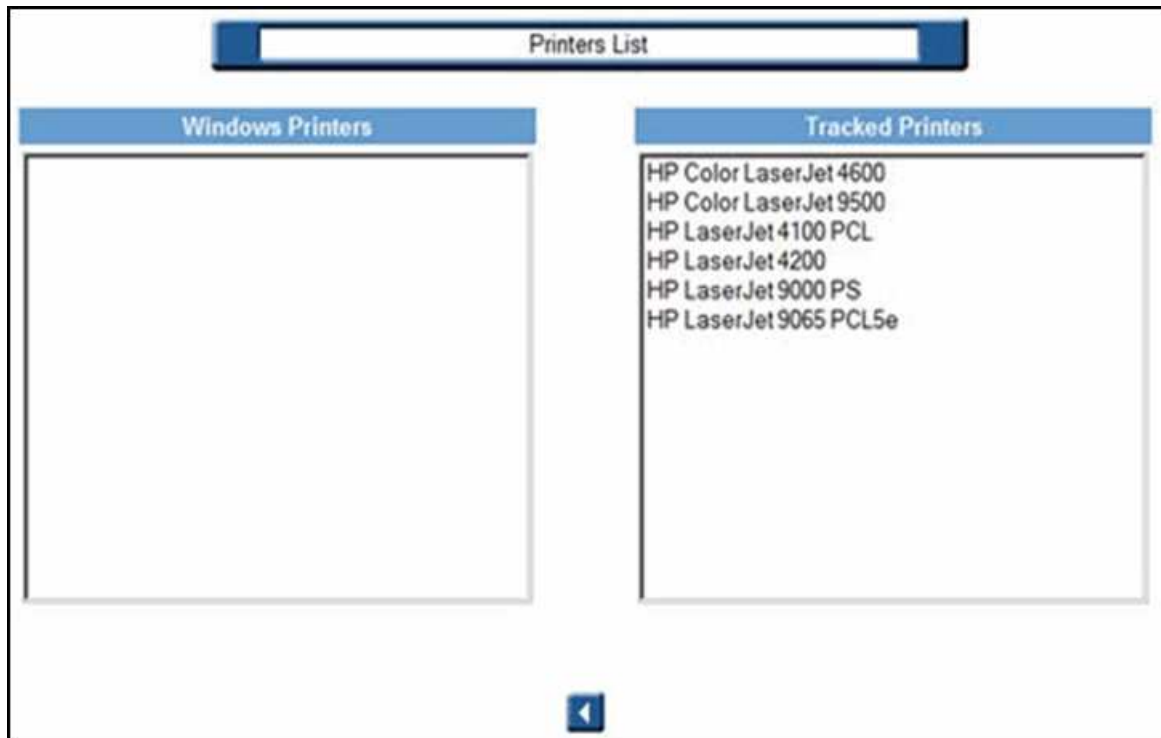
To view a list of both Windows printers and HP Access Control (HP AC) Job Accounting printers for the selected HP Access Control (HP AC) Job Accounting print server, from the Printers List column, click **View**.

Figure 6-3 Administration / Print server status



The Printers List screen shows the list of installed Windows printers.

Figure 6-4 Printers list



Before HP Access Control (HP AC) Job Accounting can track a printer, it must be identified by the Print Server tile.

1. Go to the **Print Server** tile.

Figure 6-5 Print server tile

Name	Port	Tracking	Quota	Add tracking PDL attributes	IPM	IPM Cost	Pause job
HP Color LaserJ...	Sea	☐	☐	☐	☐		☐
HP LaserJet 810...	Port 2	☒	☐	☐	☒		☐
HP LaserJet 500...	port1	☒	☐	☐	☐		☐
Microsoft XPS D...	XPSPort:	☐	☐	☐	☐		☐
HP Universal Pri...	sppe	☒	☒	☐	☒	Cost Scheme 1	☐

5 queues

2. Select a printer from the printer list, then click **Configure**.
3. In the Configure window, select the features you want to configure:

- Click **Tracking** enable tracking of print jobs sent to the selected print queue. The print queue tracking method can be either Port Monitor or Print Processor, depending on what is selected in the **Settings** tile > **Print Server** tab.
- Click **Quota** to enable the enforcement of Job Accounting quotas for printing.
- Click **IPM** to apply IPM rules and costs to the printer. See the *HP Access Control (HP AC) IPM Administrator Guide* for more information.
- Click **Add tracking PJI attributes** to insert Job Accounting PJI attributes in the data stream. If an application generates a data stream that does not include the PJI header containing the user and job information, the user and job name are reported as UNSPECIFIED in Job Accounting reports.
- Click **Pause job** to automatically pause print jobs in the print queue. Print jobs must be manually resumed by an administrator. Pause job is only available when Port Monitor is selected in the **Settings** tile > **Print server** tab. The Windows service HP ACJA Spool Monitor must be started. Go to **Administrative Tools** > **Services** to start the HP ACJA Spool Monitor service. Click **OK**.

If you installed and are running HP Access Control (HP AC) Configuration Utility on a remote print server, you will have the following options to configure printers:

1. From the print server, open **HP AC Configuration Utility** and go to the **Settings** tile.
2. Click to open the **IIS** tab.

Figure 6-6 Print server settings

The screenshot shows the 'IIS' tab in the HP AC Configuration Utility. It is divided into two main sections: 'Web service' and 'Push mode'.
 In the 'Web service' section, there are input fields for 'Server name' (containing '10.0.3.11') and 'Server IP' (containing '10.0.3.11'). To the right are 'Test' and 'Apply' buttons.
 In the 'Push mode' section, there is a dropdown for 'HTTP/FTP' set to 'ftp'. Below it are fields for 'Port' (21), 'Login' (anonymous), and 'Password' (masked with asterisks). There is also an 'Interval (minutes)' field set to '0'. To the right are 'Test' and 'Apply' buttons.
 At the top of the window, there are tabs for 'Device', 'IIS', and 'Print server', with 'IIS' being the active tab.

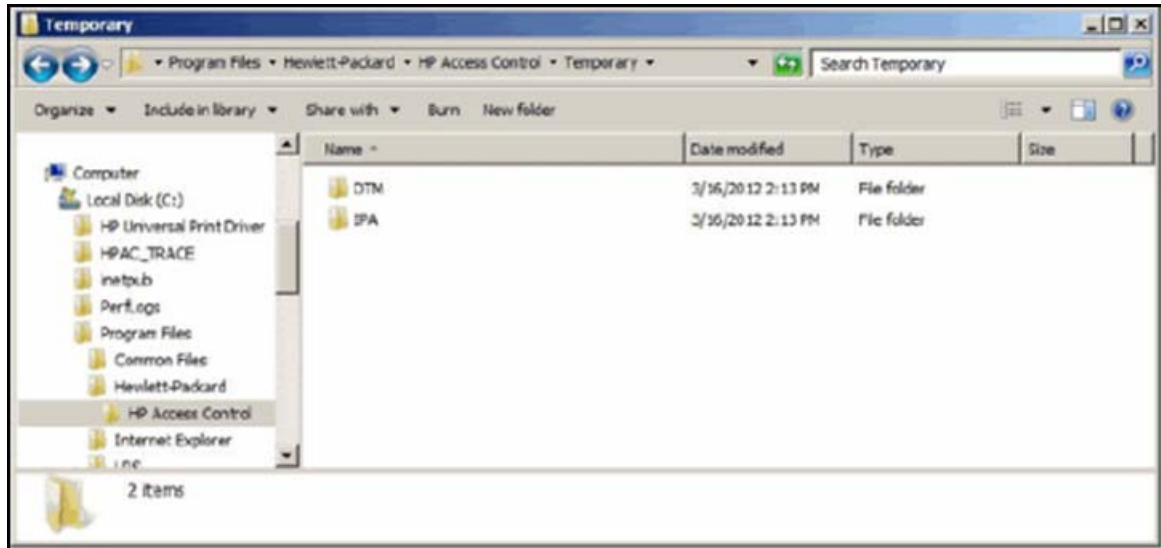
If desired, printer data can be auto-loaded (pushed) to the HP Access Control (HP AC) Job Accounting server through one of these transfer protocols: FTP, HTTP, or HTTPS.

- File Transfer Protocol (FTP) is a standard for transferring files between computers with different operating systems. FTP is best for uploading data to an internal database server.
- Hypertext Transfer Protocol (HTTP) differs from FTP, since connections are usually terminated after a particular request (or series of requests) has been completed. HTTP is the preferred method of data transfer if your database server is located off-site, or beyond your firewall.

Additional settings include *Server Name*, which *Server Port* to use when transferring the data, server *Login name*, *Password*, and an *Initial Folder* in which to store the uploaded data.

TIP: To validate that a device is pushing files correctly, navigate to the folder in the directory where HP Access Control (HP AC) is installed, and locate the Temporary folder for FTP push and Temporary DTM for HTTP push. The Temporary folder should contain a set of folders for each device that has successfully pushed a tracking file (.xml) to HP Access Control (HP AC) Job Accounting. The folders are identified by the device IP address. The following figure shows the default installation directory C:\Program Files\Hewlett-Packard\HP AC\Temporary.

Figure 6-7 Device folder



FTP mode pushes files in `..\HP AC\Temporary\x.x.x.x` folder, where `x.x.x.x` is the printer IP address.

HTTP and HTTPS modes push files in `..\HP AC\Temporary\DTM` folder. The file name starts with the printer IP address.

 **TIP:** The push interval can be set to 0 for real-time push.

1. Click the **Snmp** tab. The default SNMP setting is “public” for Set and Get. If values are changed on the devices, all devices must have the same value or no value (public).

The default Trap level is Printer Confirmation traps. In the default mode, only printed job traps are sent. This is used to reduce the network traffic with unwanted traps. Some versions of HP JetDirect require that All traps mode is selected.

2. Click **Save** to save the new configuration information.

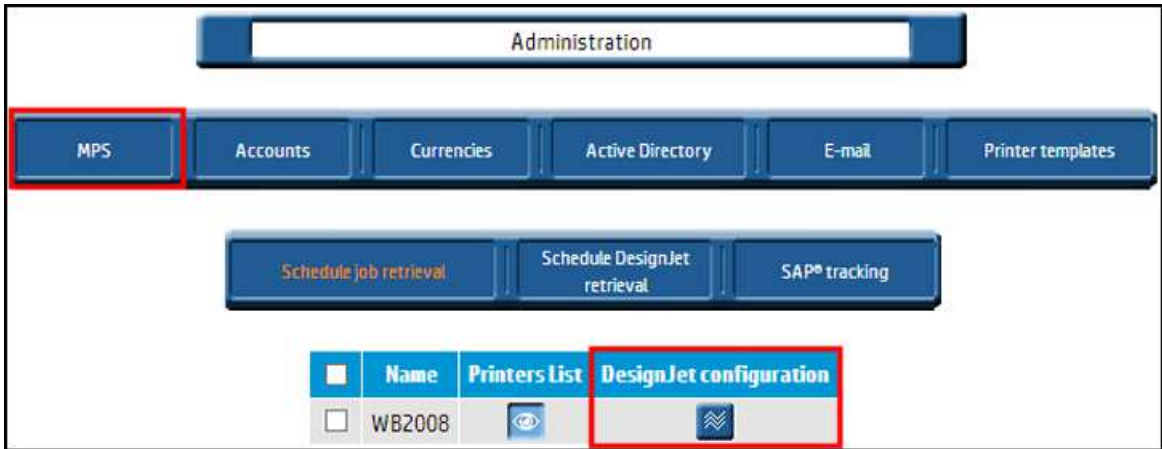
6.4 DesignJet configuration

 **NOTE:** This section applies only to DesignJet printers with built-in Job Accounting.

Some DesignJet models such as the 4000, 4500, Z610, and T1100PS have a built-in tracking function which allows HP Access Control (HP AC) Job Accounting to parse the XML accounting file. To enable this feature, the DesignJet must be installed and configured locally on an HP Access Control (HP AC) Job Accounting print server, allowing HP Access Control (HP AC) Job Accounting to retrieve the IP address and the queue name.

Configure networked DesignJet printers by clicking the Modify  icon in the DesignJet configuration column on the HP Access Control (HP AC) Job Accounting print server Administration screen.

Figure 6-8 DesignJet configuration



To start tracking a DesignJet printer, simply select the DesignJet from the list on the left and click the right arrow between the columns:

Figure 6-9 Add or remove DesignJet printers



To stop tracking a DesignJet printer, select it from the right list and click the left arrow between the columns.

6.5 Schedule job retrieval

The HP Access Control (HP AC) Job Accounting administrator can use the Schedule job retrieval function to determine precisely when, how frequently, and by what method (pull or push) HP Access Control (HP AC) Job Accounting retrieves job data.

NOTE: For large networks, it is recommended that job retrieval be performed outside of regular business hours.

To access the schedule parameters, click **Schedule job retrieval** on the HP Access Control (HP AC) Job Accounting print server Administration page.

Figure 6-10 Schedule job retrieval

The screenshot shows a web interface titled "Schedule job retrieval". Below the title is a section labeled "Schedule parameters" with the following fields:

Days	☒ s ☒ m ☒ t ☒ w ☒ t ☒ f ☒ s (all)
Start time	hh 00 mm 00
End time	hh 23 mm 59
Interval	1 hour(s)
Retrieval Method	☐ Pull ☒ Auto-Upload (requires configuration on remote print server)

 **NOTE:** If **Auto-Upload** is selected, the interval may be set to **0** for real-time processing.

6.6 Schedule DesignJet retrieval

DesignJet retrieval can be scheduled to occur at a designated start time on one or more days of the week, or regularly at a specific time interval.

To access the schedule parameters, click **Schedule DesignJet retrieval** on the HP Access Control (HP AC) Job Accounting print server Administration page.

Figure 6-11 Schedule DesignJet retrieval

The screenshot shows a web interface titled "Schedule DesignJet retrieval". Below the title is a section labeled "Schedule parameters" with the following fields:

Days	☒ s ☒ m ☒ t ☒ w ☒ t ☒ f ☒ s (all)
Start time	hh 00 mm 00
End time	hh 00 mm 00
Interval	hour(s)
User name	☐ Use AccountID as user name

At the bottom of the form is a blue play button icon.

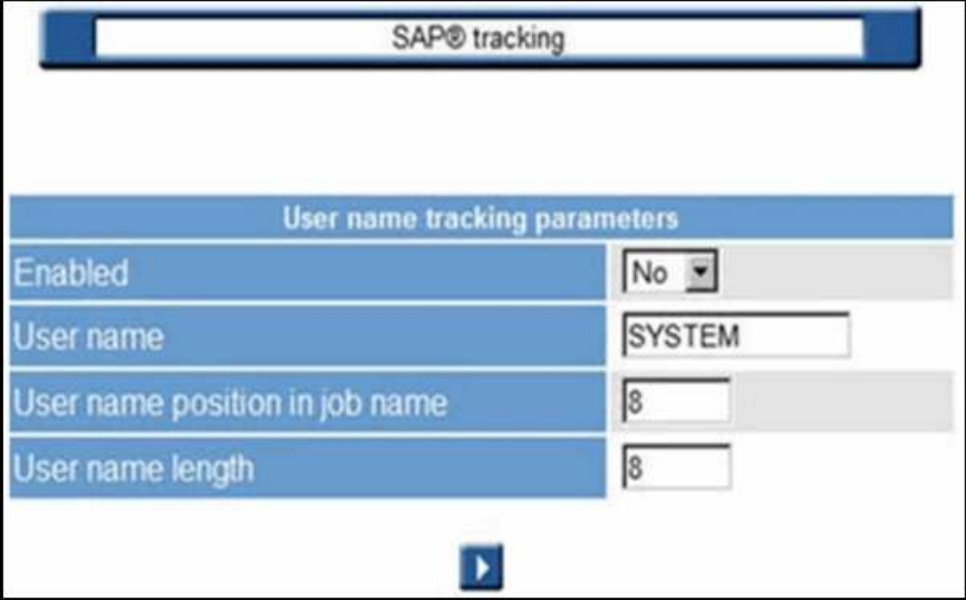
If Account ID is enabled in the driver, HP Access Control (HP AC) Job Accounting can report the account ID as the User name. By default, the login name is reported.

6.7 SAP tracking

SAP must be configured to report the user name in the job name (consult SAP for more details on how to configure SAP queues).

To access the SAP user name tracking parameters, click **SAP tracking** on the HP Access Control (HP AC) Job Accounting print server Administration page.

Figure 6-12 SAP tracking



If **Yes** is selected from the **Enabled** drop-down list, HP Access Control (HP AC) Job Accounting will search for the user name in the job name for all jobs printed by the SAP user name that is defined (the default user name is SYSTEM).

HP Access Control (HP AC) Job Accounting will extract the user name at the selection position and extract only the number of characters selected.

If default parameters are used for all jobs printed by the user SYSTEM, HP Access Control (HP AC) Job Accounting extracts 8 characters from the job name, starting at position “8” — and uses this as the user name for the job.

Example: If the job name is “Job_abc_USER1234_xyz” and is printed by user SYSTEM, HP Access Control (HP AC) Job Accounting will report this job printed by user USER1234.

6.8 Direct Tracking Module (DTM)

The Direct Tracking Module (DTM) is another method of capturing data directly from a network printer and functions even if the HP Access Control (HP AC) Job Accounting print server module is not installed.

In order for the DTM to work, ALL of the following conditions **MUST** be met:

- Printer must be manufactured by Hewlett Packard.
- JetDirect should be installed and connected directly to the network (not locally through USB or LPT1).

- Correct/current printer drivers with Job Accounting information must be installed.
- Printer must be capable of sending a trap.

 **NOTE:** A trap is a packet of information provided by the printer that indicates basic job information and print job status.

In the Devices tile, select a device from the device list, then click **Configure**. In the Configure window, select **Confirmation trap**. Click **OK**.

When the selected printer receives a job, corresponding trap information appears in the **Trap** section on the right.

Figure 6-13 DTM Trap

10.0.0.80	NP102C70B	HP LaserJet M400	XXXXXXXXXX	8/7/2013 1
10.0.0.122	NP149732F	HP Color LaserJet CP5520 Series	CNBNF00039	8/7/2013 1
▶ 10.0.0.182	NP11CB460	HP Color LaserJet CM6040 MFP	JP1L7CV00B	8/7/2013 1
10.0.0.106	NP115F76C	HP LaserJet flow MFP M525	MX3CD940N9	8/7/2013 1
10.0.0.208	NP102C53B	HP LaserJet MFP M725	MX1CDCW0Y1	8/7/2013 1

Push interval 0

Trap

Trap 1 10.0.0.128

Trap 2 10.0.1.101

6.8.1 DTM options

To configure the DTM from a DTM server that is not on the same server as the HP Access Control (HP AC) Job Accounting server, open the HP Access Control (HP AC) Configuration Utility and go the **Settings** tile > **IIS** tab.

Figure 6-14 DTM options

Device **IIS** Print server

Web service

Server name 10.96.140.51

Server IP 10.96.140.51

Push mode

HTTP/FTP ftp

Port 21 ☐ PASV

Login anonymous

Password *****

Interval (minutes) 0

If desired, printer data can be auto-uploaded (pushed) to the HP Access Control (HP AC) Job Accounting database server (DS) through one of three transfer protocols: FTP, HTTP, or HTTPS. Push features are enabled only if the DTM server is not installed on the HP Access Control (HP AC) Job Accounting database server.

The Device tab provides additional options to configure DTM.

Figure 6-15 Snmp options

The screenshot shows a web interface for configuring a device. At the top, there are tabs for 'Device', 'IIS', and 'Print server'. The 'Device' tab is selected. Below the tabs, there is a section titled 'SNMP'. Inside this section, there are four fields: 'Get community name' with a value of '*****', 'Set community name' with a value of '*****', 'Trap level' with a dropdown menu showing 'Printer confirmation traps', and 'UDP port' with a value of '162'. Below the 'SNMP' section, there is a section titled 'Concurrent connections' with a field 'Number of connections' set to '20'.

The default setting is “public” for Set and Get. If values are changed on the devices, all devices must have the same value for Set and Get, or no value (public).

The default Trap level is **Printer Confirmation** traps. In the default mode, only printed job traps are sent. This is used to reduce the network traffic with unwanted traps. Some versions of HP JetDirect require that “All traps” mode is selected.

The trap service is using the default 162 UDP port. If the port is used by another application or service on the same server, HP Access Control (HP AC) Job Accounting Trap service can use another port. If the port is changed, the HP Access Control (HP AC) Job Accounting Trap service (HPACJA_SnmpTrap) needs to be stopped and restarted and the printer reconfigured using the new port.

The Filter Delay is used if JetDirect sends the same trap multiple times in a very short interval. This occurs on external JetDirect 300x and 500x. The delay value can be set to 50 ms for 300x and 500x. For others devices, the default value can remain at 0.

7 Viewing the print server

This HP Access Control (HP AC) Job Accounting function allows you to view the organization of your print system—all HP Access Control (HP AC) Job Accounting print server and all printers linked to each HP Access Control (HP AC) Job Accounting print server tracked by HP Access Control (HP AC) Job Accounting. This module also automatically corrects print job errors and only tracks actual output.

Click **Print organization** in the HP Access Control (HP AC) Job Accounting remote control panel:

Figure 7-1 Print organization

Print organization													
Print server		WB2003											
Name	Status	Local name	Shared name	Port	IP	Type	Driver	Comment	Location	Duplex	Color	Serial Number	Last print job
WB2003	✓	CM3530	CM3530	10.0.0.53	10.0.0.53	HP Color LaserJet CM3530 MFP	HP LaserJet 4 Plus			✓	✓	CM3530 (CC325A)	2012-04-04 14:00:00
		VM 4015 PCL	VM4015PC	IP_10.0.0.112	10.0.0.112	Unspecified	HP LaserJet 4100 Series PCL			?	?	Unspecified ()	
		HP Color LaserJet 4730mfp	HP Color LaserJet 4730mfp	IP_10.0.0.113	10.0.0.113	HP Color LaserJet 4730mfp	HP Universal Printing PCL 5 (v5.4)			✓	✓	JPLH00247 (Q7519V)	
		HP Color LaserJet CP5520 Series (10.0.0.156)	CP5525	IP_10.0.0.156	10.0.0.156	HP LaserJet 500 color MFP M575	HP Universal Printing PCL 5			✓	✓	XXXXXXXXXX (CXXXXA)	
		HP LaserJet 4345mfp	HP LaserJet 4345mfp	IP_10.0.0.118	10.0.0.118	hp LaserJet 4345 mfp	HP LaserJet 4 Plus			✓	✗	CNKYF22406 (Q3942A)	
		HP LaserJet 4200	HP LaserJet 4200	IP_10.0.0.94	10.0.0.94	hp LaserJet 4200	HP LaserJet 4 Plus			✗	✗	USDRP00652 (Q2426A)	2012-04-04 09:28:29

This page is divided into two parts:

The left lists all print servers. Click the printer name in this column will display all individual printers connected to that server on the right.

On the right are all printers managed by the print server selected on the left. If you click on another print server, the printer list and the server name on the right will dynamically change.

The following icons may appear on this page:

✓ When displayed in the Status column, this indicates the HP Access Control (HP AC) Job Accounting print server is currently running. The Duplex or Color columns show if the printer is capable of duplex or color printing.

✗ The Status column shows that the HP Access Control (HP AC) Job Accounting print server is not installed; and is also used to indicate simplex or black and white printers.

? Indicates that the HP Access Control (HP AC) Job Accounting is unable to determine the printer's duplex or color capabilities, and should be manually configured by the user.

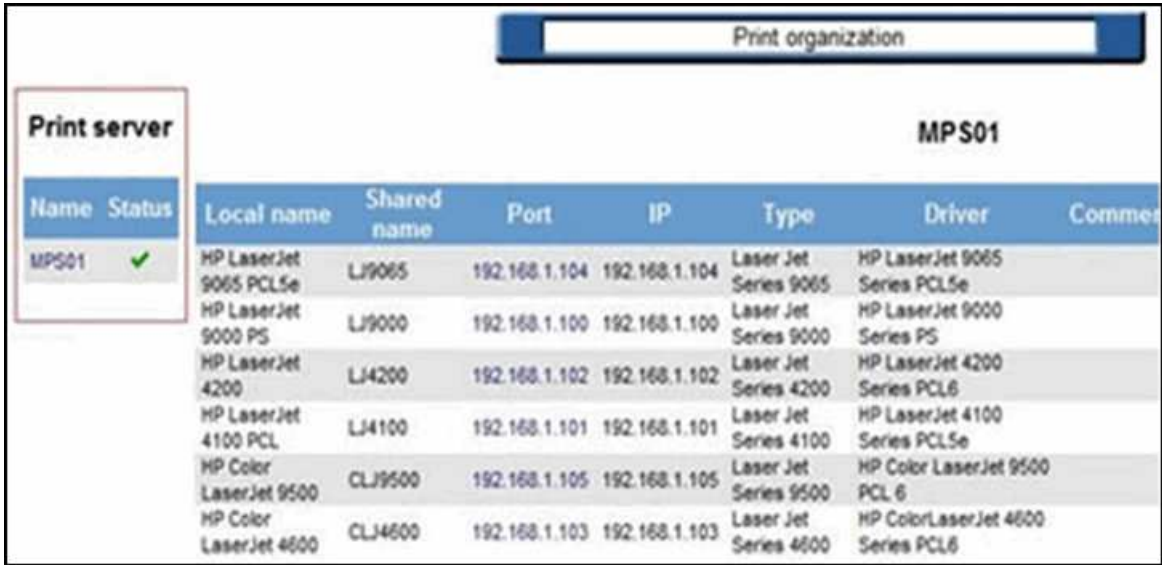
7.1 Print servers

Print servers are displayed on the left side of the screen. These servers appear in the order in which they were created in HP Access Control (HP AC) Job Accounting.

Click a print server in this column, and all printers managed by this server will be listed in the right column. This list provides the printer's local name, port name, driver name, and all available functionalists for each

printer (color, duplex printing). The columns **Local name** and **Sharing name** can be sorted in ascending or descending alphabetical order if you click on the titles of the columns.

Figure 7-2 Print server column

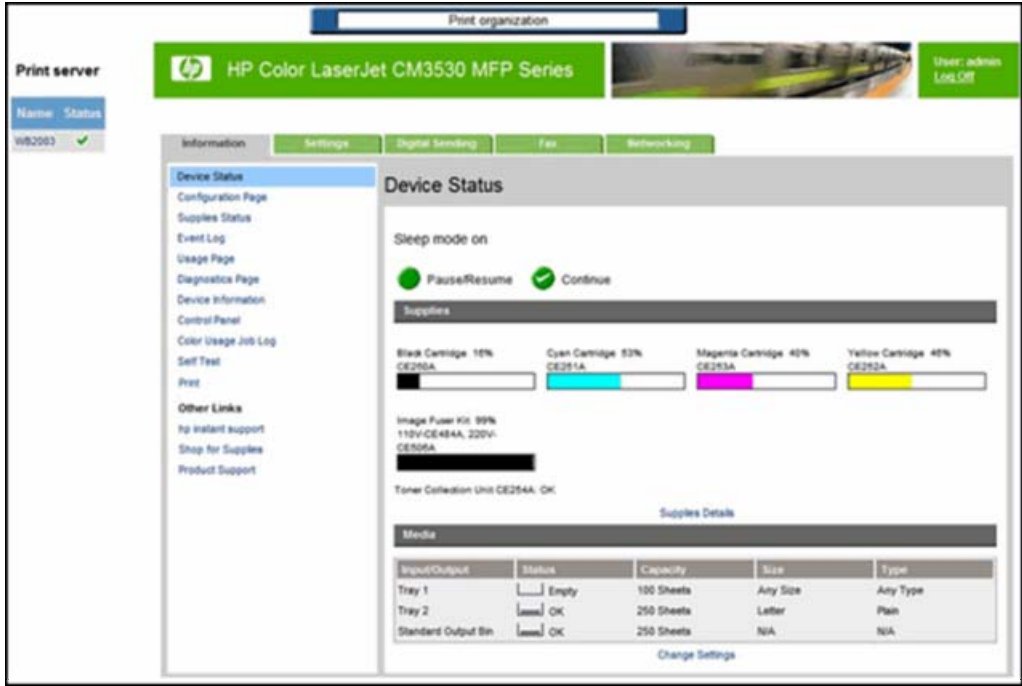


Name	Status	Local name	Shared name	Port	IP	Type	Driver	Comments
MPS01	✓	HP LaserJet 9065 PCL5e	LJ9065	192.168.1.104	192.168.1.104	Laser Jet Series 9065	HP LaserJet 9065 Series PCL5e	
		HP LaserJet 9000 PS	LJ9000	192.168.1.100	192.168.1.100	Laser Jet Series 9000	HP LaserJet 9000 Series PS	
		HP LaserJet 4200	LJ4200	192.168.1.102	192.168.1.102	Laser Jet Series 4200	HP LaserJet 4200 Series PCL6	
		HP LaserJet 4100 PCL	LJ4100	192.168.1.101	192.168.1.101	Laser Jet Series 4100	HP LaserJet 4100 Series PCL5e	
		HP Color LaserJet 9500	CLJ9500	192.168.1.105	192.168.1.105	Laser Jet Series 9500	HP Color LaserJet 9500 PCL 6	
		HP Color LaserJet 4600	CLJ4600	192.168.1.103	192.168.1.103	Laser Jet Series 4600	HP Color LaserJet 4600 Series PCL6	

7.1.1 Printers

Click a printer port to get the characteristics of this printer. This reaches the internal web site of the printer, allowing you to determine its status and administer its configuration.

Figure 7-3 Printer internal website



HP Color LaserJet CM3530 MFP Series

Print organization

Print server

Name: Status

MPS001 ✓

Information Settings Digital Sending Fax Networking

Device Status

Sleep mode on

Pause/Resume Continue

Supplies

Black Cartridge 16% CE250A

Cyan Cartridge 53% CE251A

Magenta Cartridge 40% CE252A

Yellow Cartridge 40% CE253A

Image Fuser Kit 99% 110V-CE484A, 220V-CE506A

Toner Collection Unit CE254A: OK

Media

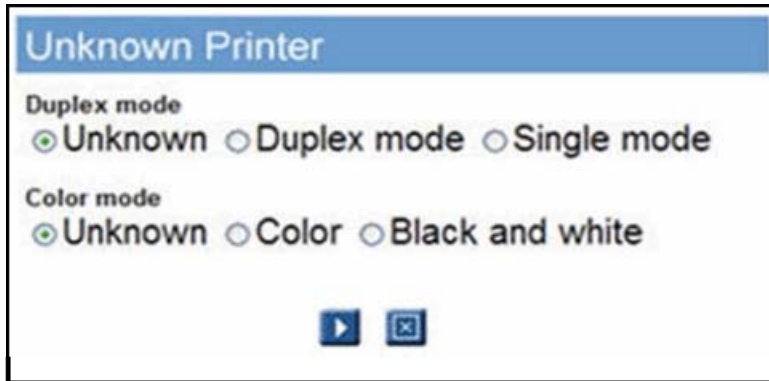
Input/Output	Status	Capacity	Size	Type
Tray 1	Empty	100 Sheets	Any Size	Any Type
Tray 2	OK	250 Sheets	Letter	Plain
Standard Output Bin	OK	250 Sheets	N/A	N/A

Change Settings

HP Access Control (HP AC) Job Accounting has an auto-detect feature that determines the type of printer connected and configures accordingly. However, it may be unable to auto-detect the printer under the following conditions:

- If the printer is not manufactured by Hewlett Packard (HP).
- If the printer is offline.
- If the printer is installed locally (LPT1 or USB) and not on the network.

Figure 7-4 Manually define printer



After specifying the type of printer, click the Go  icon to accept the information, or the Cancel  icon to stop the operation.

8 Manage print costs

8.1 Cost control overview

One of the main HP Access Control (HP AC) Job Accounting benefits is its ability to produce extremely accurate printing cost information and employ enterprise-level print cost control solutions in your organization. The cost of a printer is linked to many factors:

- Accessories
- Maintenance
- Technology (such as whether it is a laser printer)
- Color
- Quality
- Speed
- Depreciation time

Each of these factors involves a cost, which determines the cost of each printed page. To secure accurate billing, the exact number of printed pages and associated costs must be determined. After this information is compiled, the cost of a print job can be calculated. If the cost of any printer, media, or other element is updated or modified, the resulting cost of all print jobs related to this printer, media, or other element will also be dynamically updated.

 **CAUTION:** The cost of media is independent of the printer. Media cost depends on the price of the paper in this particular format and quality. HP Access Control (HP AC) Job Accounting automatically calculates the cost of a print job according to the defined costs and the number of printed pages.

In addition to calculating the actual price of each print job or page, HP Access Control (HP AC) Job Accounting also enables you to assign a fixed cost to a print job or to a printed page. These user-defined costs do not take into account the real price involved in the print process, but rather printing characteristics, such as the media or the color mode. For more information on these fixed costs, see the *Define fixed costs* section of this guide.

You must enter the cost of all printers and media if you want to launch queries related to costs. If any of this information is missing, all your query results containing cost information will be inaccurate.

 **CAUTION:** If a printer's purchase price has been defined for a printer using a printer template, it is not necessary to redefine this cost, since it automatically becomes the real purchase price for this printer.

8.2 Cost management page

Click **Page cost management** in the HP Access Control (HP AC) Job Accounting Remote control panel to reach the printer selection page. This page allows the selection of a print server and printer, for which cost information must be entered:

Figure 8-1 Page cost management



The print server/printer list is a dynamic list of all print servers and printers used at least once in your print system since the initial HP Access Control (HP AC) Job Accounting installation. You can select one or more printers, to which common costs apply. Hold the Ctrl or Shift keys while clicking to select a range of choices.

The printer selection page appears by default when you click **Actual Costs: printers** in the task bar at the top of the page.

An icon may appear between the task bar and the printer list, as follows:

Figure 8-2 Processing icon



This icon indicates that HP Access Control (HP AC) Job Accounting is calculating costs. This can happen when new costs are entered, or when defined costs are modified or entered.

8.3 Actual costs: printers

There are often several costs associated with printers; such as toner/ink, media, maintenance, and warranty. The actual cost of a printer is determined by a combination of these variables. These costs are different than templates, where a default cost is associated to one or several printers without taking into account the actual costs of each printer. These costs are also opposed to fixed costs, where only one of these actual cost components is taken into account—for instance, when only the media format of the paper is used to determine a document printing charge.

8.3.1 Manual actual costs

To manage your actual costs:

1. Select one or several print servers or printers on the **Page cost management** screen selection page.
2. Click the Go to open Page cost management page. Actual printer costs may be viewed here.

Figure 8-3 Actual printer costs

Page cost management

Actual costs : printers

Actual costs : media

Fixed costs

Leasing costs

Schedule : Costs calculation

Create a cost

\\WB2008\HP Color LaserJet CM3530 MFP PCL6

■	🗑	Name	Type	Purchase / subscription cost	Currency name	Depreciation start date	Depreciation time (in years)	Planned print volume (pages/year)	Modify parameters
☐		Black Cartridge HP CE250A	Toner	0	USD	11/12/2013	0	1	⚙
☐		Cyan Cartridge HP CE251A	Color toner	0	USD	11/12/2013	0	1	⚙
☐		Magenta Cartridge HP CE253A	Color toner	0	USD	11/12/2013	0	1	⚙
☐		Yellow Cartridge HP CE252A	Color toner	0	USD	11/12/2013	0	1	⚙

The print server and printer you selected appear at the top of the page. Any costs defined for these printers appear in the list.

From this screen, you may:

- Create the actual costs attached to a printer by clicking **Create a cost**.
- Modify the actual cost attached to a printer. Select the cost to modify and click the Modify parameters  icon.
- Delete the actual cost attached to a printer. Select the cost to delete and click the Delete  icon.

8.3.2 Create actual printer costs

To create an actual cost, enter the appropriate information in **Create cost** as follows:

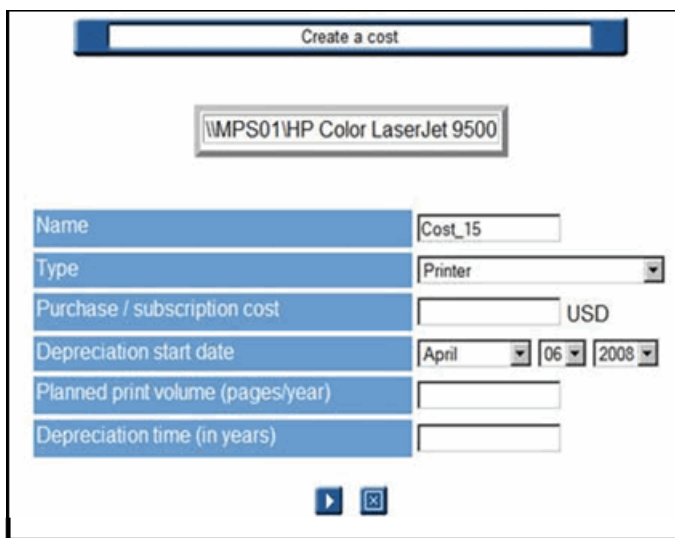
1. Choose a name for the cost. The default name is Cost_(the cost number). Enter up to 15 characters, symbols, or figures.
2. Choose a cost Type from the drop-down menu: Printer, Toner, Color toner, Warranty, Maintenance, Leasing, or Miscellaneous.

3. Enter the Purchase / subscription cost to apply. You can enter up to 8 values. The currency used appears next to the cost entry field. This currency is defined in your user options. See the *HP Access Control (HP AC) Job Accounting user options* section of this guide.
4. Choose the Depreciation start date. By default, it is today's date. You can choose a date between 01/01/1990 and 12/31/2100.

 **NOTE:** Do not enter depreciation start date or period for toners. Only the number of printed pages is relevant to depreciation allowances. The printer manufacturer provides this information.

5. Enter the Planned print volume (pages/years). You can enter up to 15 figures. The HP Access Control (HP AC) Job Accounting administrator must estimate this number, except for toner.
6. Enter the Depreciation time (in years). Year is the only available time unit. You can enter up to 15 figures. The HP Access Control (HP AC) Job Accounting administrator must estimate this number.

Figure 8-4 Create a cost



For the first year, enter an accounting evaluation of the depreciation time of your printer. You must also evaluate the number of pages to be printed over this depreciation period. For the following years, you will be able to enter values based on the information provided by HP Access Control (HP AC) Job Accounting. The currency used to express this cost is defined in your user options.

HP Access Control (HP AC) Job Accounting defines the cost of your printing jobs according to the number of printed pages per job. The cost of a printing job depends on:

- The page-printing mode: is this page printed in duplex or simplex mode? The duplex mode reduces your printing cost, since you need less paper to print a document.
- Ink price and the color or black and white printing mode.
- Depreciation time of the various components and costs associated with the printer such as purchase price or guaranty.
- Printing quality (such as standard vs. fine quality printing, or ink coverage defined by the user) and the media used.

The following limitations apply when calculating these costs:

- HP Access Control (HP AC) Job Accounting does not include the ink coverage on the page. A one-line page will be charged at the same price as an entire printed page.
- The cost of electricity is not included.



NOTE: HP Access Control (HP AC) Job Accounting recognizes when a print job is canceled.

8.3.3 Modify a printer actual cost

After selecting the cost to modify and clicking the Modify parameters  icon, you reach the cost entry page. This page contains all information you previously entered regarding this cost.



NOTE: If you already defined a template for your printer and want to modify your data, you must use this section and not add a new cost using Create a printer cost. When you modify any cost, HP Access Control (HP AC) Job Accounting calculates all print job costs in its database. If a toner cartridge must be replaced you should not create a new toner cost, which would add to the total toner cost, but modify the cost of the former toner.

To modify costs, as desired, click the Go  icon to accept the modifications, or the Cancel  icon to stop the operation.

8.3.4 Delete a printer actual cost

You should delete the cost of any component or option which will not be used again, or which is obsolete.



NOTE: All print jobs in the HP Access Control (HP AC) Job Accounting database will be recalculated when there is any cost deletion.

To delete a printer actual cost:

1. Select the cost to delete and click the Delete  icon.
2. Click the Go  icon to accept the cost deletion, or the Cancel  icon to stop the operation.

Figure 8-5 Delete printer cost

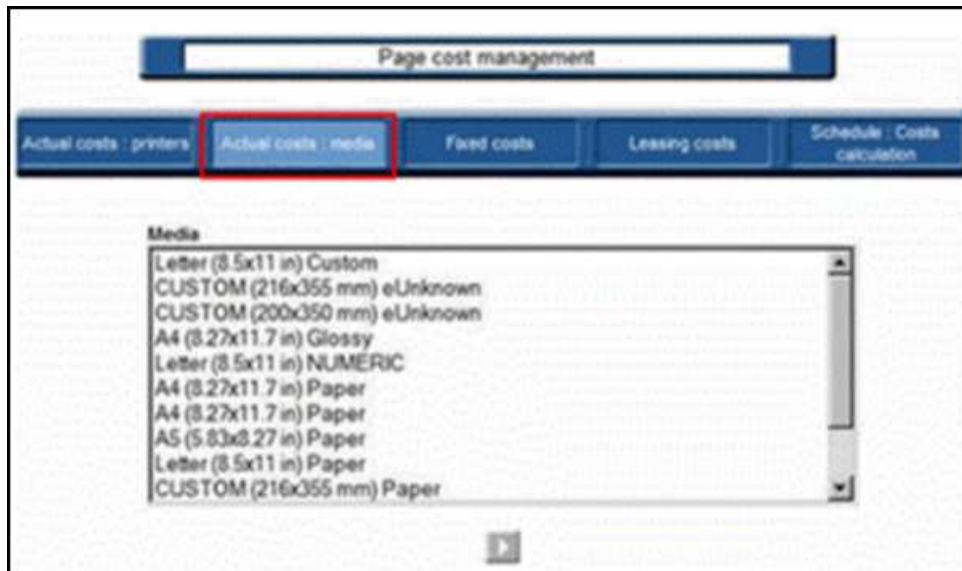


8.3.5 Actual costs: media

The price of a media depends on the paper size and type (for instance glossy, transparent paper, and weight). Use the following steps to enter a media price.

1. Click **Actual costs: media**.

Figure 8-6 Actual costs: media



The media list which displays consists of all combinations of media size and type used at least once since HP Access Control (HP AC) Job Accounting (HP AC) installation.

2. Choose a combination and then click the Go  icon.
3. Enter the desired amount on the Media page.

Figure 8-7 Media costs



CAUTION: If a printer's purchase price has been defined for a printer with a printer template, it is not necessary to redefine the cost, since it automatically becomes the real purchase price for this printer.

CAUTION: The price of media is calculated using the price of one sheet of paper in this particular format. It does not depend on the printer, or print organization.

All costs are expressed in the currency defined in the *User options* section of this guide. To change the currency type in which these costs are expressed, see the *HP Access Control (HP AC) Job Accounting user options* section of this guide.

8.4 Define fixed costs

This feature allows you to set a fixed price per page or for an entire document according to its characteristics, without taking into account the actual cost of this document.

For example, assume you want to monitor your company's printing expenditure. You want every A4 document to be charged \$0.2, regardless the number of printed pages or the mode used. This price should be set in the fixed cost management page.

8.4.1 Fixed costs

The Fixed costs management screen contains all defined fixed costs: name, amount of each fixed cost, and currency used. Click **Fixed costs** to open the Fixed costs management page:

Figure 8-8 Fixed costs management

	Name	Purchase / subscription cost	Currency name	Modify parameters
☐	B&W	0.05	USD	
☐	Color	0.15	USD	

From within Fixed costs you can **Create a fixed cost** or **define the Costs priority rules**

Create a fixed cost:

Select one or more elements in one or more criteria. You can combine several criteria by holding the Ctrl or Shift keys—an A4 document can cost \$0.2, a color document \$0.4, and an A4 color document \$0.6.

Enter the price for all selected criteria. You can enter up to 8 figures in this field. The currency used appears next to the entry field. This currency is defined in your user options.

When your selections and prices are entered, click the Go icon to accept the information, or the Cancel icon to stop the operation.

Actual costs will be assigned to all criteria for which no fixed cost is entered. These actual costs are those associated to printers, media, and trays.

As soon as HP Access Control (HP AC) Job Accounting detects a new element of a criteria (such as a new user or a new printer), this element is automatically added to the criteria list. If you want to associate your fixed cost to this new element, you should modify your fixed cost by reselecting this element in your criteria. However, if you select All for this criteria, it is not necessary to re-select it. All means that all elements in these criteria are automatically considered.

NOTE: The **Name** field is required.

NOTE: If you define two fixed costs for the same criteria and elements the latest cost is considered.

Figure 8-9 Create a fixed cost

Create a fixed cost

Name

Printer

- All printers
- \\MPS01\HP Color LaserJet 4600
- \\MPS01\HP Color LaserJet 9500
- \\MPS01\HP LaserJet 4100 PCL
- \\MPS01\HP LaserJet 4200

Media

- All media
- Letter (8.5x11 in) Custom
- CUSTOM (216x355 mm) eUnk
- CUSTOM (200x350 mm) eUnk
- A4 (8.27x11.7 in) Glossy

Users

- All users
- fcharboneau
- j david
- j doe
- j ess

Color mode

☒ All modes ☐ Color ☐ Black and white

Duplex mode

☒ All modes ☐ Duplex mode ☐ Single mode

Economode

☒ All modes ☐ EconoMode ☐ Normal

Page price USD

Costs priority rules: A problem may arise when several costs for a combination of common criteria have been defined.

Example: Document A printed in letter format costs \$ 0.2, document B printed in color mode costs \$ 0.3, and document C printed in letter format and color mode costs \$ 0.5. At this point, priority must be assigned to these fixed costs.

 **NOTE:** The priorities defined in this section apply to all fixed costs. You cannot specifically define a priority order to some of your fixed costs.

After fixed costs are defined, click **Costs priority rules**.

Figure 8-10 Costs priority rules



The list of criteria appears in default priority order. The criterion at the bottom of the list contains the lowest priority. The criterion with the highest priority is at the top of the list. If these priorities do not suit your own priority order, you can modify by clicking on a criteria, then by clicking **Increase priority** or **Decrease priority** icons to move the selected criteria up or down as desired. Repeat this operation for all relevant criteria.

Figure 8-11 Costs priority rules defined



When you launch a cost query, the fixed cost that is first selected corresponds to the criteria with the highest priority.

NOTE: You must enter priorities when you have more than one fixed cost.

NOTE: All criteria have a default priority.

NOTE: All criteria for which **ALL** is selected have the lowest priority.

NOTE: Any priority change involves recalculating your costs. Depending on the size of the print jobs database, this operation may take several minutes.

HP Access Control (HP AC) Job Accounting analyzes the three documents described at the beginning of this section according to their characteristics and the priority assigned to these characteristics.

Table 8-1 Media priority

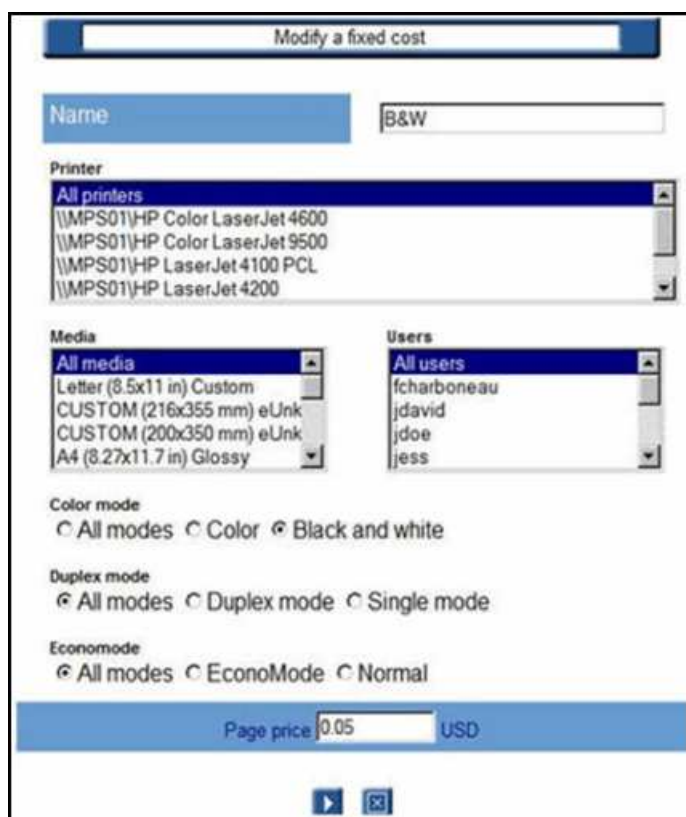
Document	Media	Printing Mode	Cost
C	Letter	Color	\$0.5
B	All	Color	\$0.3
A	Letter	All	\$0.2

As document C matches two criteria, it will be assigned \$0.5 as cost. Then the priority is given to the color-printed document. If no other criterion matches a priority, the document is charged according to its media cost.

8.4.2 Modify a fixed cost

Complete the following steps to modify a fixed cost:

1. Select the cost to modify, and click the Modify parameters  icon. The **Modify a fixed cost** page contains information already entered regarding this cost.

Figure 8-12 Modify a fixed cost


2. After you have modified the desired data, click the Go  icon to accept the modification, or the Cancel  icon to stop the operation.

CAUTION: For any modification of your fixed costs, HP Access Control (HP AC) Job Accounting will recalculate any cost related to the modifications. This operation, depending on the quantity of jobs tracked in the database, can take several minutes.

8.4.3 Delete a fixed cost

1. Select the fixed cost to delete and click the Delete  icon. The name of the cost appears at the top of the page.

Figure 8-13 Delete a fixed cost



2. Click the Go  icon to accept the cost deletion, or the Cancel  icon to stop the operation.

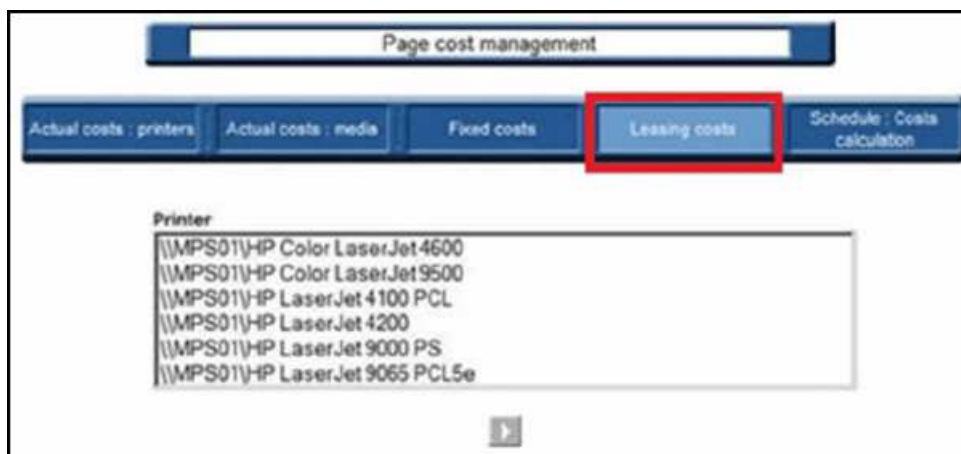
 **NOTE:** After a fixed cost has been deleted, the actual cost of each printed page is used to calculate printing costs. When fixed costs are deleted, HP Access Control (HP AC) Job Accounting recalculates any cost concerned with these deletions. This operation, depending on the quantity of jobs tracked in the database, can take several minutes.

8.4.4 Lease costs

The cost of leasing can depend on a monthly lease rate or a per-page rate for color or black-and-white printing, faxing, or copying. Use the following steps to manage the lease costs for a printer:

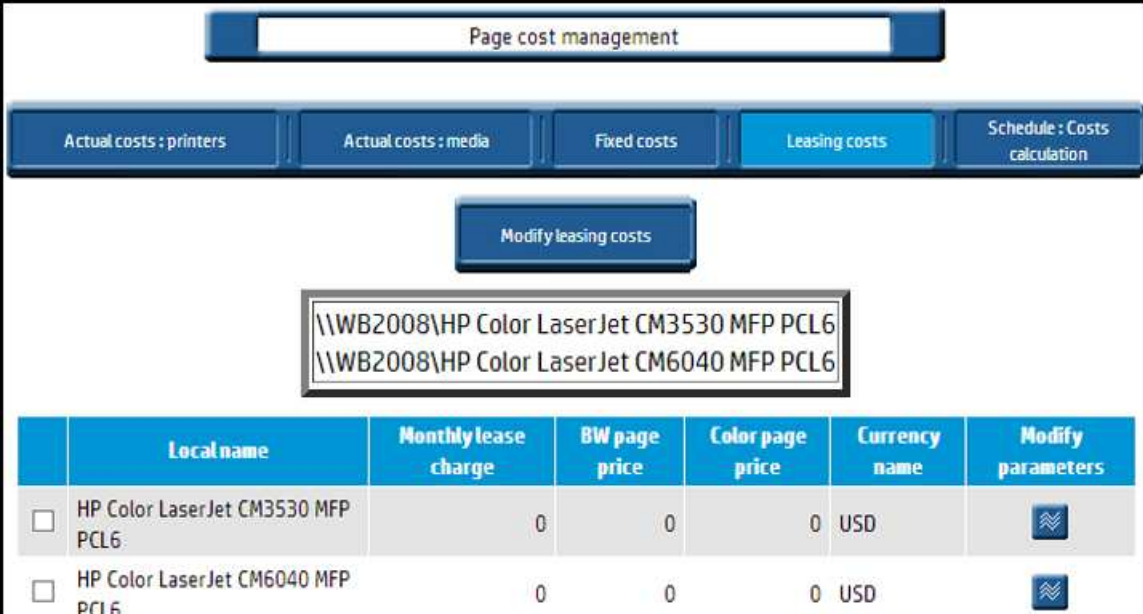
1. Click **Leasing costs** in the bar at the top of the page.

Figure 8-14 Leasing costs



2. Choose a Printer from the list. You can select one or more printers to which common costs apply. Hold the Ctrl or Shift keys while clicking to select a range of choices, and then click the Go  icon to open the table displaying current leasing cost parameters for the selected printer.

Figure 8-15 Modify leasing costs



The screenshot shows the 'Page cost management' window with the 'Leasing costs' tab selected. A list of printers is shown, and a table displays leasing cost parameters for selected printers.

	Local name	Monthly lease charge	BW page price	Color page price	Currency name	Modify parameters
☐	HP Color LaserJet CM3530 MFP PCL6	0	0	0	USD	
☐	HP Color LaserJet CM6040 MFP PCL6	0	0	0	USD	

- To set or change the leasing costs for an entire group of printers, click **Modify leasing cost**.
- To set or change the leasing costs for a single printer, click the box to the left of the printer name, and then click the Modify  icon.

Figure 8-16 Modify a cost



The screenshot shows the 'Modify a cost' window for the HP LaserJet 9000 PS printer. It displays input fields for the following costs:

- Monthly lease charge: 0 USD
- BW page price: 0 USD
- Color page price: 0 USD

At the bottom, there are 'Go' and 'Cancel' icons.

Add or change monthly lease and per-page costs for the printer in the fields provided. Click the Go  icon to accept the changes, or the Cancel  icon to stop the operation.

All costs are expressed in the currency defined in User options. To change the currency type in which these costs are expressed, see the *HP Access Control (HP AC) Job Accounting user options* section of this guide.

 **NOTE:** The **Cost Calculation** does not need to be enabled if only Leasing costs is used. The calculation is performed when the query is processed.

8.4.5 Schedule: Costs calculation

1. Click **Schedule costs calculations** on the navigation bar.

Figure 8-17 Schedule: Costs calculation

The screenshot displays the 'Page cost management' interface. At the top, there is a navigation bar with five tabs: 'Actual costs : printers', 'Actual costs : media', 'Fixed costs', 'Leasing costs', and 'Schedule : Costs calculation'. The 'Schedule : Costs calculation' tab is currently selected. Below the navigation bar, the interface is divided into three main sections: 'Statistic', 'Schedule parameters', and 'Recalculate costs from'. The 'Statistic' section shows 'Remaining costs to calculate' as 204358. The 'Schedule parameters' section includes fields for 'Days' (with checkboxes for s, m, t, w, t, f, s and a '(all)' option), 'Start time' (hh:00 mm:00), 'End time' (hh:00 mm:00), and an 'Enabled' checkbox set to 'Yes'. The 'Recalculate costs from' section includes a 'Start date' field (June 01 2005) and an 'Enabled' checkbox set to 'Yes'. A play button icon is located at the bottom center of the interface.

2. Select **Schedule parameters**:

Days

Start time

End time

Enabled Allows you to toggle the scheduling feature on or off. When checked, the process is started and calculation is done. When unchecked, the calculation is disabled.

If **Recalculate costs from** is enabled, all the jobs printed after the selected date will be recalculated with the current cost information. Jobs printed before the date will not be affected if a cost is changed.

9 Cost center

9.1 Managing or creating

Cost centers are another method the administrator can use to organize, group, and track output of printers or users. After cost centers are created and assigned, you can perform queries to determine individual or collective use of cost centers.

To either manage or create cost centers, click **Cost center** in the HP Access Control (HP AC) Job Accounting remote control:

Figure 9-1 Cost center — manage or create

The screenshot shows the 'Cost center' management interface. At the top, there is a title bar 'Cost center'. Below it, three buttons are visible: 'Manage cost center', 'Assign users to cost center', and 'Assign printers to cost center'. The 'Manage cost center' button is highlighted with a red rectangle. Below these buttons, there are two main sections: 'Add a cost center' and 'List of cost centers'. The 'Add a cost center' section includes a text input field, an 'Import cost center (CSV)' button, a 'Browse...' button, a checkbox for 'Use a csv with header', and input fields for 'Cost center column' (set to 2), 'User name column' (set to 1), 'Printer name column' (set to 0), and 'CSV separator' (set to comma). The 'List of cost centers' section displays a list of cost centers: 123456, 654321, 659874, 987654, CC1, CC2, Finance, Human Resources, Purchasing, and Test cost center.

9.1.1 Manage a cost center

Cost centers must be created before users or printers can be assigned to them. This process can be performed manually by the administrator, or automatically by importing a CVS file. The steps for creating cost centers are explained in the following sections.

9.1.1.1 Add a cost center

To add a cost center manually:

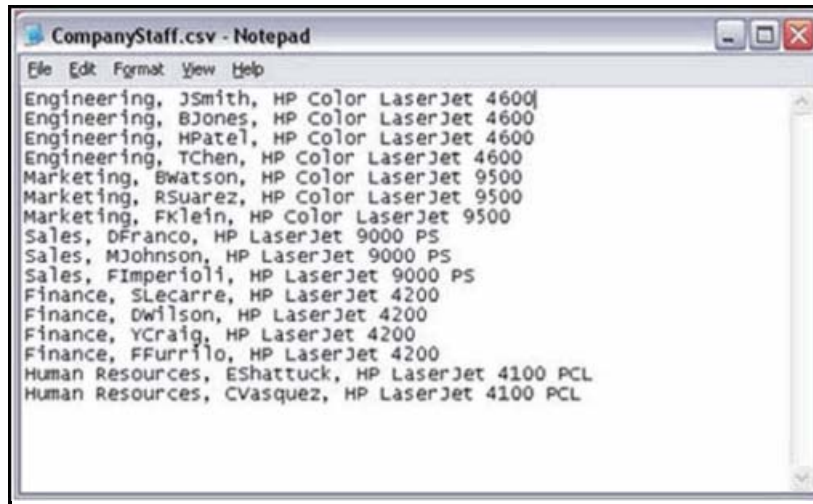
1. Enter a name for the cost center in the **Add a cost center** field.
2. Click **Add a cost center** button to add a new cost center to the list.

9.1.1.2 Import a cost center

When adding a large number of cost centers, printers, or users, it is quicker and more efficient to import a standard CSV file containing the data. This method also allows for both cost center creation and user/printer assignment to occur in a single step.

CSV files can be generated through a spreadsheet program, or simply typed with a text editor and saved as shown below:

Figure 9-2 Import cost center data



NOTE: When importing a CSV file, user names and printer names **MUST** match those being tracked by HP Access Control (HP AC) Job Accounting.

To import cost centers,

1. Enter the path of the CSV file in the field or click **Browse** and locate it.
2. Specify whether to use a CSV with header.
3. Indicate in the field which column of the CSV file contains the names of the cost centers you wish to create.

To assign users or printers to the imported cost center automatically, enter the column number that contains the user name or printer in the appropriate field.

NOTE: You can assign either a user name or printer to imported cost centers – not both.

9.1.1.3 Delete a cost center

Use the following steps to delete a cost center:

1. From the **Manage cost center** page, select the desired cost center from the list on the right and then click the Delete  icon.
2. Click the Go  icon to accept the deletion, or the Cancel  icon to stop the operation.

Figure 9-3 Delete a cost center



9.1.2 Assign users to a cost center

After cost centers have been created or imported, use the following steps to assign user names to them.

1. Click **Assign users to cost center** to access the following page:

Figure 9-4 Assign users to cost center



2. Select from the list of **Available users** in the left column.



TIP: The list of available users can be filtered by using the drop-down menu above it.

3. Choose a cost center from the drop-down menu on the right.
4. Click the **Assign** icon to assign the user to the desired cost center.

To remove all users, click the **Delete** icon to delete the all users from the list and then automatically import all users tracked by HP Access Control (HP AC) Job Accounting.

9.1.3 Assign printers

Assigning printers to a cost center is very similar to assigning users. After cost centers have been created or imported, printer names can be assigned to them.

1. Click **Assign printers** to cost center to display the following page:

Figure 9-5 Assign printers to cost center

The screenshot shows a web interface titled "Printers cost center". At the top, there are three buttons: "Manage cost center", "Assign users to cost center", and "Assign printers to cost center". Below these buttons, the interface is divided into two main sections. The left section, titled "Available printers", contains a dropdown menu labeled "All cost centers" and a list of printers: "HP Color LaserJet 4600 (Finance)", "HP Color LaserJet 9500 (Finance)", "HP LaserJet 4100 PCL (Human Resource)", "HP LaserJet 4200 (CC1)", "HP LaserJet 9000 PS (123456)", and "HP LaserJet 9065 PCL5e (123456)". The right section, titled "Cost center", contains a dropdown menu showing the value "123456".

2. Select from the list of **Available printers** in the left column.

 **TIP:** The list of available printers can be filtered by using the drop-down menu above it.

3. Choose a cost center from the drop-down menu on the right.
4. Click the **Assign** icon to assign the printer to the desired cost center.

10 HP Access Control (HP AC) Job Accounting user options

10.1 Options

During the initial installation of HP Access Control (HP AC) Job Accounting, some options are set by default, such as the language and the currency used in the application. These default options are set according to the language defined by your operating system. When using HP Access Control (HP AC) Job Accounting you can change the following options:

- Language
- Currency
- Date format
- Number of lines displayed in HP Access Control (HP AC) Job Accounting lists
- Password
- Email address

The columns of the query table can be accessed by clicking User options in the HP Access Control (HP AC) Job Accounting remote control.

Any modifications performed to these options are only valid for the user whose login is currently being used.

Click **User options** in the remote control to reach the general user summary for all user options: language, currency, interface, and date format, as well as your electronic address and the number of lines displayed in the HP Access Control (HP AC) Job Accounting lists.

Figure 10-1 User options



From **User options** you can modify the following:

- Options appearing in the general options page
- HP Access Control (HP AC) Job Accounting account password
- Information provided for all launched queries

Use the task bar located at the top of the screen to make any of the changes listed above.

10.1.1 User options

Click **User options** in the task bar and the following page appears:

Figure 10-2 Define user options

Your user name appears at the top of the page. To accept one or several modifications performed on this page, click the Go  icon, or click the Cancel  icon to stop the operation.

10.1.1.1 Language/currency

Choose a language and a currency from the pull-down menus. The languages already defined in HP Access Control (HP AC) Job Accounting are:

Table 10-1 Language/currency

Czech	Korean
Dutch	Polish
English	Portuguese
Finnish	Simplified Chinese
German	Spanish
Hungarian	Swedish
Italian	Turkish
Japanese	Traditional Chinese

Currencies already defined in HP Access Control (HP AC) Job Accounting are:

- US Dollar
- Euro
- British Pound

CAUTION: You can add currencies, but you cannot add languages. For more information regarding currency management, see the Currencies section of this guide.

10.1.1.2 Number of lines in lists

You can modify the number of lines displayed in all HP Access Control (HP AC) Job Accounting lists such as the query table, the results list of a recurring query, or the list of print servers and printers in the Print Organization menu. The default number of display lines in one list is 10.

To change the number of display lines, enter the number you want in the Number of lines in lists lines field.

NOTE: Your data is not affected by this change.

For example, a query table with 10 display lines appears as follows:

Figure 10-3 Query table with 10 lines

	Themes	Query name	Status	Schedule date	Result date	Schedule parameters	Result display	Other display types	Previous results	Edit results
☐	Printers	Printers_4	✓	04/17/2012 10:01:07	04/17/2012 10:01:07					
☐	Costs	Costs_6	---	04/17/2012 10:00:59					2	
☐	Costs	Costs_5	---	04/17/2012 10:00:50					2	
☐	Printers	Printers_3	✓	04/17/2012 10:00:01	04/17/2012 10:00:01					
☐	Users	Users_3	✓	04/17/2012 09:55:55	04/17/2012 09:55:56					
☐	Users	Users_2	✓	04/17/2012 09:55:52	04/17/2012 09:55:56				2	
☐	Quota	Quota_1	✓	04/17/2012 09:54:44	04/17/2012 09:54:45					
☐	Costs	Costs_1	✓	04/17/2012 09:54:34	04/17/2012 09:54:38				2	
☐	Printers	Printers_1	✓	04/17/2012 09:53:45	04/17/2012 09:53:46					
☐	Users	Users_1	✓	04/17/2012 09:53:07	04/17/2012 09:53:10					

The same query table with 5 display lines appears as follows:

Figure 10-4 Query table with 5 lines

	Themes	Query name	Status	Schedule date	Result date	Schedule parameters	Result display	Other display types	Previous results	Edit results
☐	Users	Users_2	✓	04/17/2012 09:55:52	04/17/2012 09:55:56				2	
☐	Quota	Quota_1	✓	04/17/2012 09:54:44	04/17/2012 09:54:45					
☐	Costs	Costs_1	✓	04/17/2012 09:54:34	04/17/2012 09:54:38				2	
☐	Printers	Printers_1	✓	04/17/2012 09:53:45	04/17/2012 09:53:46					
☐	Users	Users_1	✓	04/17/2012 09:53:07	04/17/2012 09:53:10					

NOTE: You can sort all queries in the query table by ascending, descending, or alphabetical order by clicking the column title. To sort all your queries, and not only the queries displayed on the current page, all queries must be displayed on one single page. To display all queries on one page, enter 0 in this field.

10.1.1.3 Email address

You can forward query results to a specified email address. Any HP Access Control (HP AC) Job Accounting user or administrator can define their email address.

Use the following steps to define an email address:

1. Click in the Email address entry field.
2. Enter/modify your address as desired. You can enter up to 127 characters, symbols, and figures. Your email address appears each time you reach this page.

10.1.1.4 Data format

Date formats differ depending upon the country/region in which you reside. HP Access Control (HP AC) Job Accounting allows you to configure the date format displayed in the application.

1. Click on the preferred format.
2. Click the Go  icon to accept the configuration, or the Cancel  icon to stop the operation.

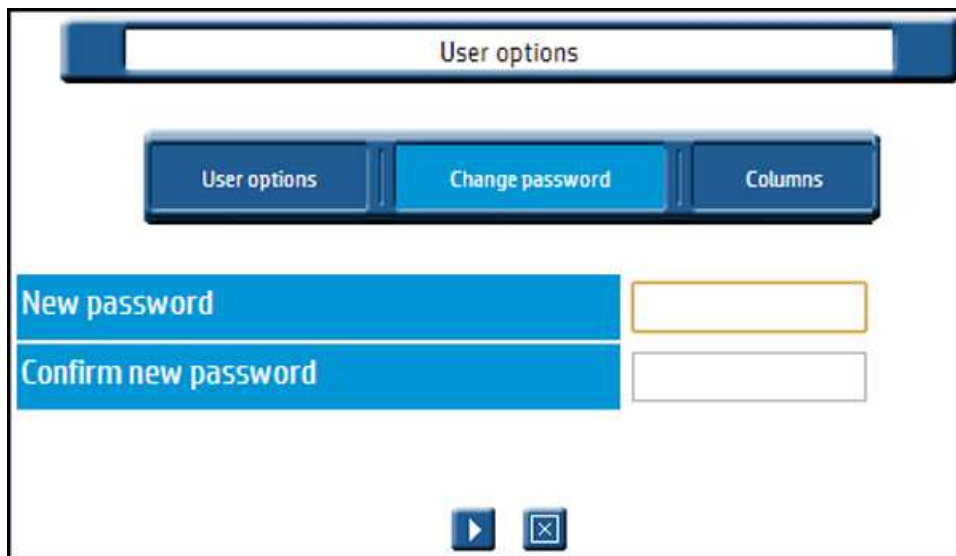
10.1.2 Set passwords

The HP Access Control (HP AC) Job Accounting administrator defines your password when the HP Access Control (HP AC) Job Accounting account is initially created.

Use the following steps to reset the password:

1. Click **Change password**.
2. Enter the new password in both fields.

Figure 10-5 Change password



The screenshot shows a 'User options' dialog box. At the top is a title bar labeled 'User options'. Below it are three tabs: 'User options', 'Change password', and 'Columns'. The 'Change password' tab is selected and highlighted in blue. Under this tab, there are two input fields. The first is labeled 'New password' and the second is labeled 'Confirm new password'. Both fields are currently empty. At the bottom of the dialog, there are two buttons: a 'Go' button (represented by a right-pointing arrow icon) and a 'Cancel' button (represented by a square with an 'X' icon).

 **CAUTION:** Passwords are case-sensitive.

3. Click the Go  icon to accept the new password, or the Cancel  icon to stop the operation.

 **NOTE:** It is highly recommended that you change the password of the Admin account.

10.1.3 Queries in progress

Columns

To modify content within the table, from **Users options**:

1. Go to **Queries in progress** and select the desired columns.

2. Click **Columns** on the User options page to get the list of all displayed columns:

Figure 10-6 Query columns



By default, all options are highlighted.

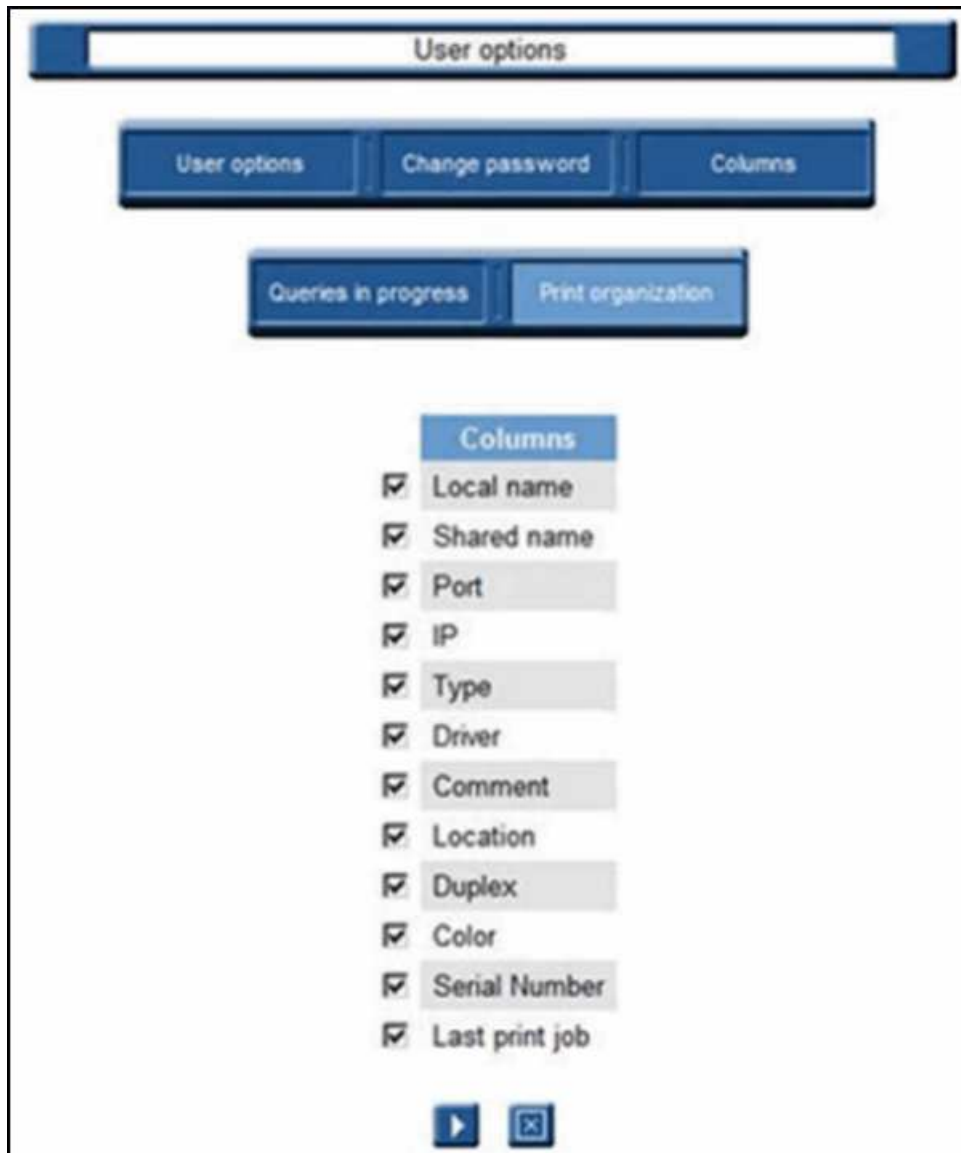
3. Uncheck the title of the columns you want to hide.
4. Click the Go  icon to accept the selections, or the Cancel  icon to stop the operation.

10.1.4 Print organization

To generate a list of all displayed columns, complete the following steps:

1. Go to **Print organization**.

Figure 10-7 Print organization columns



2. Uncheck the title of the column(s) you wish to hide.
3. Click the Go  icon to accept the selections, or the Cancel  icon to stop the operation.

11 Perform a query

11.1 Queries

Use HP Access Control (HP AC) Job Accounting's tracking function to get statistical data related to your printed documents, printing system, or costs. HP Access Control (HP AC) Job Accounting only manages print jobs processed by HP Access Control (HP AC) Job Accounting print servers. They are created by end users and can be of any format: text, spreadsheet, word processing, or databases.

While the print job is being processed, the HP Access Control (HP AC) Job Accounting print server analyzes its characteristics, which are then sent to the HP Access Control (HP AC) Job Accounting Database Server to be stored. This data includes the following characteristics:

- End users (name, login)
- Printers (name, model, driver, characteristics)
- Print jobs (document title, printer, number of printed pages, color media, costs per page and per printer model)
- Total print number per user, per printer and per day
- Workload for each printer to determine the printer's efficiency
- Statistics for each printer
- Statistics for each time period
- Statistics for each end user

These characteristics are easily retrieved by running queries. The data is then presented in one or more formats (table, chart, or spreadsheet).

11.1.1 Initiate a query

Queries can be initiated by clicking **New Query** on the HP Access Control (HP AC) Job Accounting remote control. This chapter describes the following:

- The various types of queries.
- How to run a query.
- How to modify your query parameters.

11.2 HP Access Control (HP AC) Job Accounting queries

The New Query page can be accessed by clicking **New Query** on the HP Access Control (HP AC) Job Accounting remote control.

Figure 11-1 New query

New Query

Users Printers Cost Centers Costs Printer options Allocation Quota

Query: Allocation

- ☒ Simplified list of printed documents with allocation information
- ☐ Printing cost per year
- ☐ Printing fixed cost per year
- ☐ Number of printed documents per year
- ☐ Number of printed pages per year
- ☐ Agregated allocation
- ☐ Detailed list of printed documents with allocation information
- ☐ List of profiles
- ☐ "Number of printed pages, cost allocated/not allocated per" domains
- ☐ "Number of printed pages, cost with available/ not available allocation information per" domains
- ☐ Distribution of allocation cost per profile
- ☐ Distribution of allocation fixed cost per profile
- ☐ List of jobs without allocation information per domains/groups/users
- ☐ Job type summary grouped by allocation information
- ☐ Job type summary grouped by allocation information and user
- ☐ Job type summary grouped by user and allocation information

Task icons: printer, document, list

This page is divided into three main areas:

- The query navigation bar at the top of the page.
- The query types in the middle of the page.
- The task icons at the bottom of the page.

The query navigation bar allows queries to be initiated on:

- **Users** who have printed at least once since HP Access Control (HP AC) Job Accounting installation.
- **Printers** that have processed at least one print job since HP Access Control (HP AC) Job Accounting installation.
- **Cost Centers** that have been defined and assigned (to printers or users) by the administrator.
- **Printing costs** generated by the end users or by the printers in your print system.
- **Printer options**, or the frequency of use per user or per printer of the various printing modes: duplex, color, and Economode.
- **Allocation** information stored in the database.

Click the appropriate icon to choose the type of query you would like to perform. The list of all queries related to this theme appears within the general display window. A description of each query type is provided in the following section.

11.2.1 Query types

11.2.1.1 Users

The queries contained within this theme pertain to the printer users. Search restrictions can be any of the following: print periods (start date, end date), the user's name, their groups, their domain, the date when they first printed, the document title, and cost. Some queries are limited to only the first n users matching the specified criteria. A single user can belong to one domain, and to several groups.

Figure 11-2 New query — users

New Query

Users Printers Cost Centers Costs Printer options Allocation Quota

Query: Users

- ☒ List of domains
- ☐ Total number of printed pages for the top n domains
- ☐ Total number of printed documents for the top n domains
- ☐ Total number of printed documents in economode for the top n domains
- ☐ Total number of duplex pages for the top n domains
- ☐ Total number of color pages for the top n domains
- ☐ Job distribution per domain
- ☐ Distribution of printed pages per domain
- ☐ Number of printed documents per year
- ☐ Number of printed pages per year
- ☐ Number of duplex-printed pages per year
- ☐ Number of color-printed pages per year
- ☐ Number of printed documents in economode per year
- ☐ Detailed list of printed documents
- ☐ Simplified list of printed documents
- ☐ Job type summary per user
- ☐ Media type summary per user
- ☐ Media size summary per user

⏮ ⏪ ⏩ ⏭

Lists of users, groups, or domains

Before launching this query, choose user/domain/group from the pull-down menu. By default, all domains from which print jobs were processed since HP Access Control (HP AC) Job Accounting installation are considered.

Total number of printed pages for the top n users/domains/groups

Lists the first n users/domains/groups for which the greatest number of pages was printed. Before launching your query, choose user/domain/group in the pull-down menu. This query allows the greatest number of printed pages to be obtained, as well as the total number of pages printed in duplex and in color mode. By default, this query provides the 10 domains for which the greatest number of pages was printed since HP Access Control (HP AC) Job Accounting installation. This list allows you to audit your print system, and target the print volume per user.

Total number of printed documents for the top n users/ domains/groups

Lists the first n users/domains/groups for which the greatest number of documents was printed. Before launching your query, choose user/domain/group in the pull-down menu. The query then considers all print jobs. By default, this query provides the 10 domains for which the greatest number of documents was printed

since HP Access Control (HP AC) Job Accounting installation. This list allows you to audit your print system and analyze print volumes.

Total number of documents printed in Economode for the top n users/ domains/groups

Lists the first n users/domains/groups for which the greatest number of documents was printed in Economode. Before launching your query, choose user/domain/group in the pull-down menu. This query considers only the documents printed in this particular mode. By default, this query provides the 10 domains for which the greatest number of documents was printed in Economode since HP Access Control (HP AC) Job Accounting installation.

Total number of duplex pages for the top n users/ domains/groups

Lists the first n users/domains/groups for which the greatest number of duplex pages was printed. Before launching your query, choose user/domain/group in the pull-down menu. Both short-side and long-side printed pages are taken into account. By default, this query provides the 10 domains for which the greatest number of duplex pages was printed since HP Access Control (HP AC) Job Accounting installation. This query also allows the user to obtain the total number of printed pages, as well as the total number of pages printed in color mode. This list allows audits to be conducted on the print system, and to determine if a duplex printer is being properly used.

Total number of color pages for the top n users/ domains/groups

Lists the first n users/domains/groups for which the greatest number of color pages was printed. Before launching your query, choose user/domain/group in the pull-down menu. By default, this query provides the 10 domains for which the greatest number of color pages was printed since HP Access Control (HP AC) Job Accounting installation. This query also allows the user to obtain the total number of printed pages, as well as the total number of pages printed in color mode. This list allows audits to be conducted on the print system, and to determine the frequency of the color mode usage per group. It also enables easy identification of how a color printer is being used (such as if a color printer is used as a black and white printer).

Job distribution per domain/group/user

Charts the distribution of print jobs per user, group, or domain in percentage. Before launching your query, choose user, group, or domain in the pull-down menu. This query generates a comparison of the total print volume for all your users, groups, or domains. By default, all documents printed from all domains since HP Access Control (HP AC) Job Accounting installation are considered. This query highlights the usage frequency of your printers per user group (departments).

Distribution of printed pages per domain/group/user

Charts the distribution of printed pages per user, group, or domain, in percentage. Before launching your query, choose user, group, or domain in the pull-down menu. This query generates a comparison of the total printed page volume for all your users, groups, or domains. By default, all pages printed from all domains since HP Access Control (HP AC) Job Accounting installation are included. This query highlights the usage frequency of printers per user group (departments).

Number of printed pages per year/month/day/hour

Charts the total number of printed pages per year, month, day, or hour. This query also provides printing dates. Before launching this query, choose year/month/day/hour in the pull-down menu. By default, all pages printed by all users of all domains since HP Access Control (HP AC) Job Accounting installation are included.

Number of duplex-printed pages per year/month/day/hour

Charts the total number of pages printed in duplex mode per year, month, day, or hour. This query also provides printing dates. Before launching this query, choose year/month/day/hour in the pull-down menu. By

default, all pages printed in duplex mode by all users of all domains since HP Access Control (HP AC) Job Accounting installation are included.

Number of color-printed pages per year/month/day/hour

Charts the total number of pages printed in color mode per year, month, day, or hour. This query also provides printing dates. Before launching this query, choose year/month/day/hour in the pull-down menu. By default, all pages printed in color mode by all users of all domains since HP Access Control (HP AC) Job Accounting installation are included.

Number of documents printed in Economode per year/ month/day/hour

Charts the total number of documents printed in Economode per year, month, day, or hour. This query also provides printing dates. Before launching this query, choose year/month/day/hour in the pull-down menu. By default, all documents printed in Economode by all users of all domains since HP Access Control (HP AC) Job Accounting installation are included.

Simplified list of printed documents

Lists all printed documents. This query provides a result regarding general characteristics: document name, total/printed number of pages. With this query, all documents are listed according to the user who printed the document. By default all users of all domains, who printed at least once since HP Access Control (HP AC) Job Accounting installation, are included.

This query allows information to be generated on printed documents and their characteristics: the printing launch date, the printer driver, the document title, the total number of printed pages and sheets in duplex and color mode, the copy number, the domain, the print job cost related to the print server, printer and the currency used, the job size and media. You can refine your query by defining a document title (all documents whose title starts with a specific string). By default, all print job characteristics are taken into account. Documents whose printing is complex can be analyzed and the document cost as near as possible to its actual costs. Results are provided in a table.

Detailed list of printed documents

Lists all printed documents. This query provides a detailed result concerning the page: color and duplex pages, trays, and media used for printing. With this query, all documents are listed according to the user who executed the print spool. By default all users of all domains, who printed at least once since HP Access Control (HP AC) Job Accounting installation, are included.

This query concerns the printed documents helps you control printing costs. The query also allows generation of printed document characteristics: the printing launch date, the printer driver, the document title, the total number of printed pages and sheets in duplex and color mode, the copy number, the domain, the print job cost related to the print server, printer and the currency used, the job size and media. You can refine your query by defining a document title (all documents whose title starts with a specific string). By default, all print job characteristics are taken into account. Documents whose printing is complex can be analyzed and the document cost as near as possible to its actual costs. Results are provided in a table.

Job type summary per user

Lists use information for each user, including user name, number of color printed pages, number of b/w printed pages, number of color copied pages, number of b/w copied pages, number of faxed pages, and number of scanned pages. Results are provided in a table.

Media type summary per user

Lists for each user the number of pages printed for each media type along with a sum of total cost and fixed cost information.

Media size summary per user

Lists for each user the number of pages printed for each color media size and b/w media size along with a sum of total cost and fixed cost information.

11.2.1.2 Printers

The queries of this theme concern all printers in your print system tracked by HP Access Control (HP AC) Job Accounting. The default search filter is servers. Other search parameters can be:

Printer queues: Printers declared on a print server with a specific monitor port or driver. A single physical printer can be declared several times on the same print server with different ports or drivers.

Printer models: Consist of all printers of the same model. For instance, all HP 4500 LaserJet have the HP 4500 model.

Devices: Refers to the actual, physical printers. Several printer queues can refer to a single device.

Serial numbers : Refers to printer serial numbers.

Depending on the query, results are displayed in tables or charts.

Figure 11-3 Query printers

New Query

Users Printers Cost Centers Costs Printer options Allocation Quota

Query: Printers

- ☒ List of servers
- ☐ Total number of printed pages for the top n servers
- ☐ Total number of printed documents for the top n servers
- ☐ Total number of printed documents in economode for the top n servers
- ☐ Total number of duplex-printed pages for the top n servers
- ☐ Total number of color-printed pages for the top n servers
- ☐ Print job distribution per servers
- ☐ Page distribution per servers
- ☐ Number of printed documents per printer queue per year
- ☐ Number of printed pages per printer queue per year
- ☐ Number of duplex-printed pages per printer queue per year
- ☐ Number of color-printed pages per printer queue per year
- ☐ Number of printed documents in economode per printer queue per year
- ☐ Detailed list of printed documents per printer queues
- ☐ Simplified list of printed documents per printer queues
- ☐ Media type summary per servers
- ☐ Media size summary per servers
- ☐ List of inactive printer queues
- ☐ Total number of printed pages per users and per printer queues
- ☐ Job type summary per printer model

Printer Document Bar Chart

List of servers, printer queues, printer models, devices, or serial numbers

Lists servers, printer queues, printer models or printers tracked since HP Access Control (HP AC) Job Accounting installation. Before launching this query, choose servers, printer queues, printer models, serial numbers, or printers in the pull-down menu. This query informs you of the date when the device was used and therefore declared in HP Access Control (HP AC) Job Accounting, as well as the supported options (such as color or duplex). By default, all printers used since HP Access Control (HP AC) Job Accounting installation are included.

Total number of printed pages for the top n servers, printer queues, printer models, printers, or serial numbers

Lists the first n servers, printer queues, printer models, printers, or serial numbers on which the greatest number of pages was printed. Before launching this query, choose servers, printer queues, printer models, serial numbers, or printers in the pull-down menu. This query examines the total number of printed pages, color-printed pages, duplex-printed pages, and printed sheets. By default, this query provides the 10 printers on which the greatest number of pages was printed since HP Access Control (HP AC) Job Accounting installation. This list is part of your print system audit, and allows you to target print volume per server or per printer, and to highlight peaks as well as bottlenecks.

Total number of printed documents for the top n servers, printer queues, printer models, printers, or serial numbers

Lists the first n servers, printer queues, printer models, printers, or serial numbers on which the greatest number of documents was printed. Before launching this query, choose servers, printer queues, printer models, printers, or serial numbers in the pull-down menu. By default, this query provides the 10 printers on which the greatest number of documents was printed since HP Access Control (HP AC) Job Accounting installation. This list is part of your print system audit, and allows you to target print volume per server or per printer and to highlight peaks or bottlenecks.

Total number of documents printed in Economode for the top n servers, printer queues, printer models, printers, or serial numbers

Lists the first n servers, printer queues, printer models, printers, or serial numbers on which the greatest number of documents were printed in Economode. Before launching this query, choose servers, printer queues, printer models, printers, and serial numbers in the pull-down menu. This query only includes the documents printed in this mode. By default, this query provides the 10 printers on which the greatest number of documents was printed in Economode since HP Access Control (HP AC) Job Accounting installation.

Total number of duplex-printed pages for the top n servers, printer queues, printer models, printers, or serial numbers

Lists the first n servers, printer queues, printer models, printers, or serial numbers on which the greatest number of pages were printed in duplex mode. Before launching this query, choose servers, printer queues, printer models, printers, and serial numbers in the pull-down menu. Both short-side and long-side printing is considered in this query. By default, this query provides the 10 printers on which the greatest number of pages was printed since HP Access Control (HP AC) Job Accounting installation. It also provides the total number of printed pages. This list is part of your print system audit, and allows you to verify whether a duplex printer is being properly used.

Total number of color-printed pages for the top n servers, printer queues, printer models, printers, or serial numbers

Lists the first n servers, printer queues, printer models, printers, or serial numbers on which the greatest number of pages were printed in color mode. Before launching this query, choose servers, printer queues, printer models, printers, and serial numbers in the pull-down menu. By default, this query provides the 10 printers on which the greatest number of pages was printed since HP Access Control (HP AC) Job Accounting installation. It also provides the total number of printed pages, as well as the total number of duplex-printed

pages. This list is part of your print system audit, and allows you to validate the use frequency of a printer's color mode.

Job distribution per server/printer queue/printer model/ device/serial number

Charts the distribution of print jobs per server, printer queue, printer model, device, or serial number. Before launching your query, choose server, printer queue, printer model, device, or serial number in the pull-down menu. This query generates a comparison of the total print volume for all servers and printers. By default, all printers used since HP Access Control (HP AC) Job Accounting installation are included. This query highlights the usage frequency of your printers.

Distribution of printed pages per server/printer queue/ printer model/device/ serial number

Charts the distribution of printed pages per server, printer queue, printer model, device, or serial number. Before launching your query, choose server, printer queue, printer model, device, or serial number in the pull-down menu. This query generates a comparison of the total printed page volume for all your servers and printers. By default, all pages printed from all printers since HP Access Control (HP AC) Job Accounting installation are included. This query highlights the usage frequency of all printers.

Number of printed documents per...

Charts the total number of print jobs per year, month, day, or hour. Before launching this query, choose a technical item (server, printer model, printer queue, device, serial number) and time unit (per year/ month/day/hour) in the pull-down menu. This query provides the total number of printed documents, as well as printing dates. You can select a specific server, printer queue, printer model, or device. By default, all documents printed since HP Access Control (HP AC) Job Accounting installation are included.

Number of printed pages per...

Charts the total number of printed pages per year, month, day, or hour. Before launching this query, choose a technical item (server, printer model, printer queue, device, serial number) and time unit (per year, month, day or hour) in the pull-down menu. You can select a specific server, printer queue, printer model, or device. This query also provides printing dates. By default, all pages printed by all users of all domains since HP Access Control (HP AC) Job Accounting installation are included.

Number of duplex-printed pages per...

Charts the total number of pages printed in duplex mode per year, month, day, or hour. Before launching this query, choose a technical item (server, printer model, printer queue, device, serial number) and time unit (per year, month, day or hour) in the pull-down menu. You can select a specific server, printer queue, printer model, device, or serial number. This query provides the total number of duplex-printed pages, as well as printing dates. By default, all pages printed in duplex mode since HP Access Control (HP AC) Job Accounting installation are included.

Number of color-printed pages per...

Charts the total number of pages printed in color mode per year, month, day, or hour. Before launching this query, choose a technical item (server, printer model, printer queue, device, serial number) and time unit (per year, month, day, or hour) in the pull-down menu. You can select a specific server, printer queue, printer model, device, or serial number. This query provides the total number of color-printed pages, as well as printing dates. By default, all pages printed in color mode since HP Access Control (HP AC) Job Accounting installation are included.

Number of documents printed in Economode per...

Charts the total number of documents printed in Economode per year, month, day, or hour. This query also provides printing dates. Before launching this query, choose a technical item (server, printer model, printer queue, device, serial number) and time unit (per year, month, day, or hour) in the pull-down menu. You can select a specific server, printer queue, printer model, device, or serial number. This query provides the total

number of documents printed in Economode, as well as printing dates. By default, all documents printed in Economode since HP Access Control (HP AC) Job Accounting installation are included.

Simplified list of printed documents

Lists all printed documents. Before launching your query, choose server, printer queue, printer model, device, or serial number in the pull-down menu. This query provides a synthetic result regarding general characteristics such as document name and total/printed number of pages. With this query, all documents are listed according to the printer that processed the print job. By default, all printers used at least once since HP Access Control (HP AC) Job Accounting installation are included.

This query concerns printed documents and helps with your printing costs control. It allows information to be gathered on printed documents and their characteristics: the print launching date, the printer driver, the document title, the total number of printed pages and sheets in duplex and color mode, the copy number, the domain, the print job cost related to the print server, printer and the currency used, the job size and media. You can refine your query by defining a document title (all documents whose title starts with a specific string). By default, all print job characteristics are included. Documents whose printing is complex can be analyzed and the document cost as near as possible to its actual costs. Results are provided in a table.

Detailed list of printed documents

Lists all printed documents. Before launching your query, choose the server, printer queue, printer model, device, or serial number in the pull-down menu. This query provides a detailed result concerning the page: color and duplex pages, trays, and media used for printing. With this query, all documents are listed according to the printer that processed the print job. By default, all printers used at least once since HP Access Control (HP AC) Job Accounting installation are included.

This query concerns the printed documents and helps with your printing costs control. It allows information to be gathered on printed documents and their characteristics: the printing launching date (the date and time, when the user launched the print job and was not handled by the print server), the printer driver, the document title, the total number of printed pages and sheets in duplex and color mode, the copy number, the domain, the print job cost related to the print server, printer and the currency used, the job size and media. You can refine your query by defining a document title (all documents whose title starts with a specific string). By default, all print job characteristics are taken into account. Documents whose printing is complex can be analyzed and the document cost as near as possible to its actual costs. Results are provided in a table.

Media type summary

Provides a summary of media used by servers, printer queues, devices, printer models, or printer serial numbers.

Media size summary

Provides a summary of media sizes used by servers, printer queues, devices, printer models, or printer serial numbers.

List of inactive queues, devices, models, or serial numbers

Provides a list of inactive printer queues, devices, printer models, or printer serial numbers.

11.2.1.3 Cost centers

This type of query determines the usage and costs associated with users or printers assigned to a specified cost center. For more information on creating and assigning cost centers, see the *Cost centers* section of this guide.

Figure 11-4 Query cost centers

The screenshot shows a 'New Query' dialog box with a tabbed interface. The 'Cost Centers' tab is selected. Below the tabs, the title 'Query: Cost Centers' is displayed. A list of query options is provided, each with a radio button and a dropdown menu. The first option, 'List of cost centers', is selected. The other options include 'Total number of printed pages for the top n', 'Total number of printed documents for the top n', 'Simplified list of printed documents per', 'Detailed list of printed documents per', 'Total number of printed pages per printer queues grouped by user's cost centers', 'Total number of printed pages using user's cost centers grouped by', 'Total number of printed pages using printer's cost centers grouped by', 'Job type summary using user's cost centers grouped by', and 'Job type summary using printer's cost centers grouped by'. At the bottom of the dialog are three buttons: a left arrow, a right arrow, and a refresh button.

List of cost centers

Lists all the existing cost centers currently defined within HP Access Control (HP AC) Job Accounting.

Total number of printed pages for the top n cost centers/users/print queues

Lists the first n cost centers/users/print queues for which the greatest number of pages was printed. Before launching your query, choose cost center/user/print queues from the drop-down menu. This query allows the greatest number of printed pages to be obtained, as well as the total number of pages printed in duplex and in color mode.

Total number of printed documents for the top n cost centers/users/print queues

Lists the first n cost center/users/print queues for which the greatest number of documents was printed. Before launching your query, choose cost center/users/print queue from the drop-down menu. The query considers all print jobs. This list allows you to audit your print system and to analyze print volumes.

Simplified list of printed documents per users/print queues

Lists all printed documents. This query provides a simplified result regarding the document's general characteristics: document name, total/printed number of pages. With this query, all documents are listed according to the cost center that printed. This query allows information to be generated on printed documents and their characteristics.

Detailed list of printed documents per users/print queues

Lists all printed documents. This query provides detailed results concerning the page: color and duplex pages, trays, and media used for printing. With this query, all documents are listed according to the cost center executing the print spool. This query concerns the printed documents and helps with controlling printing costs.

The query also allows generation of printed document characteristics: the printing launch date, the printer driver, the document title, the total number of printed pages and sheets in duplex and color mode, the copy number, the domain, the print job cost related to the print server, printer and the currency used, the job size and media. You can refine your query by defining a document title (all documents whose title starts with a specific string). By default, all print job characteristics are taken into account. Documents whose printing is complex can be analyzed and the document cost as near as possible to its actual costs. Results are provided in a table.

Total number of printed pages per printer queues grouped by user's cost centers

Provides the total number of pages printed by each cost center.

Total number of printed pages using user's cost centers grouped by users/ print queues

Lists total pages printed by each user's cost centers, grouped by either users or print queues.

Total number of printed pages using printer's cost centers grouped by users/ print queues

Lists total pages printed by each printer's cost centers, grouped by either users or print queues.

Job type summary using user's cost centers grouped by cost centers, users, or printer queues

Provides summary of jobs using user's cost centers; grouped by cost centers, users, or printer queues.

Job type summary using printer's cost centers grouped by cost centers, users, printer queues, or printer models

Provides summary of jobs using printer's cost centers; grouped by cost centers, users, printer queues, or printer models.

11.2.1.4 Costs

This group of queries reports the printing costs of all jobs processed between two dates. The query results are displayed in tables. The reports include the total number of jobs, their total size, the total number of printed pages and sheets in duplex and color mode, the total costs, and the total printing time. You can also compare the actual costs (the amount closest to the real costs) and the fixed costs that you define (this allows you to include, for example, consumable expenditures and maintenance). You can also set a limit on the printing time, the number of printed pages, and the printing costs. The HP Access Control (HP AC) Job Accounting queries 93 limit types are: >, =, >=, < and <=. They are used to help you define the information queried more accurately.

Figure 11-5 Query costs

The screenshot shows the 'New Query' window with the 'Costs' tab active. Under 'Query: Costs', the following options are listed:

- ☒ Total printing costs for the top n domains
- ☐ Printing costs per domain/group/user per year
- ☐ Total printing costs for the top n servers
- ☐ Printing costs per printer queue per year
- ☐ Leasing cost per printer queue
- ☐ Total printing costs for the top n cost centers
- ☐ Job type summary grouped by user

Navigation buttons at the bottom: Back, Cancel, OK.

Total printing costs for the top n domains/groups/users

Lists the top n users, domains, or groups whose printing costs are the highest in a given period. Before launching your query, choose user/group/domain in the pull-down menu. This query takes into account the number of printed pages, the printing mode, the printer, and the media. By default, this query provides the 10 domains best matching these criteria since HP Access Control (HP AC) Job Accounting installation. This query helps with your costs management, by informing you of the costs involved in printing documents between two dates.

Total printing costs for the top n servers/printer queues/printer models/ devices/printer serial numbers

Lists the top n servers, printer queues, printer models, devices, or printer serial numbers whose printing costs are the highest on a given period. Before launching your query, choose servers, printer queues, printer models, devices, or printer serial numbers in the pull-down menu. This query takes into account the number of printed pages, the printing mode, the printer, and the media. By default, this query provides the 10 devices best matching these criteria since HP Access Control (HP AC) Job Accounting installation. You can specify the currency in which to express your costs. The default currency is defined in your user options. For more information on this setting, see the HP Access Control (HP AC) Job Accounting user options section of this guide. This query helps with your costs management, by informing you of the costs involved in printing documents between two dates.

Evolution of printing costs per domain/group/user per year, month, day, or hour

Charts the total real cost of all printed documents per hour, per day, per month, or per year. Before launching your query, choose domains, groups, or users in the pull-down menu. Select a specific domain, group, user, or currency. By default, all documents printed by any user of all domains since HP Access Control (HP AC) Job Accounting installation are included. The default currency is defined in your user options. For more information, see the HP Access Control (HP AC) Job Accounting user options section of this guide.

Printing cost per printer queue, device, model, or serial number

Provides information on the cost of printed documents per hour, per day, per month, or per year. Before launching this query, choose a technical item (printer queue, device, printer model, serial number) and time unit (per year, month, day, or hour) in the pull-down menu.

Leasing cost per printer queue or printer serial number

Provides information on the leasing costs per printer queue or serial number, based on the monthly lease charge, b/w page price, and color page price defined. For more information, see the Manage print costs section of this guide.

Total printing costs for the top n cost centers, users, or printer queues

Lists the top n cost centers, users, or printer queues whose printing costs are the highest in a given period.

Job type summary grouped by user

Provides a detailed table of use information for each user, including: user name, number of color printed pages, number of b/w printed pages, number of color copied pages, number of b/w copied pages, number of faxed pages, and number of scanned pages.

11.2.1.5 Printer options

The queries for this theme enable you to get information on the use frequency of printer options: color, duplex, and Economode.

Figure 11-6 Query printer options

The screenshot shows a 'New Query' dialog box with a tabbed interface. The 'Printer options' tab is selected. Below the tabs, there is a section titled 'Query: Printer options'. It contains six radio button options, each followed by a dropdown menu. The first three options are 'Frequency of duplex mode use per', 'Frequency of color mode use per', and 'Frequency of economode use per', all with 'domain' selected in the dropdown. The next three options are 'Frequency of duplex mode use per', 'Frequency of color mode use per', and 'Frequency of economode use per', all with 'servers' selected in the dropdown. At the bottom of the dialog, there are three buttons: 'L', 'M', and 'R'.

Frequency of duplex mode use per domain/group/user

Charts the percentage of sheets printed in duplex mode compared with the number of simplex-printed pages per domain, group, or user. By default, all users of all domains since HP Access Control (HP AC) Job Accounting installation are considered.

Frequency of color mode use per domain/group/user

Charts the percentage per domain, group, or user of sheets printed in color mode compared with the number of pages printed in black and white. By default, all users of all domains since HP Access Control (HP AC) Job Accounting installation are considered.

Frequency of Economode use per domain/group/user

Charts the percentage per domain, group, or user of sheets printed in Economode compared with the number of pages printed in normal mode. By default, all users of all domains since HP Access Control (HP AC) Job Accounting installation are considered.

Frequency of duplex mode use per server/printer queue/printer model/ device/serial number

Charts the percentage per server, printer queue, printer model, device, or serial number of sheets printed in duplex mode compared with the number of simplex-printed pages. By default, all printers used since HP Access Control (HP AC) Job Accounting installation are considered.

Frequency of color mode use per server/printer queue/printer model/device/ serial number

Charts the percentage per server, printer queue, printer model, device, or serial number of sheets printed in color mode compared with the number of pages printed in black and white. By default, all printers used since HP Access Control (HP AC) Job Accounting installation are considered.

Frequency of Economode use per server/printer queue/printer model/device/ serial number

Charts the percentage per server, printer queue, printer model, device, or serial number, of sheets printed in Economode compared with the number of pages printed in normal mode. By default, all printers used since HP Access Control (HP AC) Job Accounting installation are considered.

11.2.1.6 Allocation

The queries for this theme enable information to be gathered on allocation capability. For instance, you will have the ability to research using various criteria such as the allocation profile and the time period.

Figure 11-7 Query allocation

New Query

Printers Cost Centers Costs Printer options Allocation

Query: Allocation

- ☒ Simplified list of printed documents with allocation information
- ☐ Printing cost per year
- ☐ Printing fixed cost per year
- ☐ Number of printed documents per year
- ☐ Number of printed pages per year
- ☐ Agregated allocation
- ☐ Detailed list of printed documents with allocation information
- ☐ List of profiles
- ☐ Number of printed pages, cost allocated/not allocated per domains
- ☐ Number of printed pages, cost with available/ not available allocation information per domains
- ☐ Distribution of allocation cost per profile
- ☐ Distribution of allocation fixed cost per profile
- ☐ List of jobs without allocation information per domains/groups/users
- ☐ Job type summary grouped by allocation information
- ☐ Job type summary grouped by allocation information and user
- ☐ Job type summary grouped by user and allocation information

Navigation icons: left arrow, right arrow, refresh

Simplified list of printed documents with allocation information

Lists all printed documents having a link with an allocation profile.

This query provides a simplified result with information such as the field values of the allocation profile, the domain, the user, and the number of printed pages. Before launching your request, select a profile.

Detailed list of printed documents with allocation information

Lists all printed documents having a link with an allocation profile. This query provides a detailed result with information such as the field values of the allocation profile, the domain, the user, the number of printed pages, simplex/duplex pages, and the number of printed color pages. Before launching your request, select a profile.

Printing costs per year/month/day/hour

Provides graph and table with total of the real costs of all printed documents that have a link with an allocation profile. Before launching your request, select a profile.

Printing fixed costs per year/month/day/hour

Provides graph and table with total of the fixed costs of all the printed documents that have a link with an allocation profile. Before launching your request, select a profile.

Number of printed documents per year/month/day/hour

Provides graph and table illustrating the number of printed documents that have a link with an allocation profile. Before launching your request, select a profile.

Number of printed pages per year/month/day/hour

Provides graph and table illustrating the number of printed documents that have a link with an allocation profile. Before launching your request, select a profile.

Aggregated allocation

Lists all information included in the fields of a specific allocation profile. This query provides a synthetic result regarding the printings related to a profile. Before launching your request, select a profile. This query allows you to generate statements on the selected allocation profile.

List of profiles

Lists all allocation profiles. This query provides a table with detailed descriptions of the fields of each allocation profile that has been used at least once.

Number of printed pages, cost allocated/not allocated/ per domains/groups/ users

Provides a table indicating billed printings versus non-billed printings, for all printings related to an allocation profile. It also provides detailed information on the user/group/domain, number of documents, number of pages, and real and fixed costs. This query may allow you to check the correct use of the allocation module.

Number of printed pages, cost with available/not available allocation information per domains/groups/ users

Provides a table indicating the printings with allocation information available versus the printings without allocation information available. It also provides detailed information on the user/group/ domain, number of documents, number of pages, and real and fixed costs. This query may allow you to check the correct use of the allocation module.

Distribution of the allocation cost per profile

Graphs the percentage of the real costs in each profile. The result can also be displayed in a table with the total amount.

Distribution of the allocation fixed cost per profile

Graphs the percentage of the fixed costs in each profile. The result can also be displayed in a table with the total amount.

List of jobs without allocation information per domains/groups/users

Lists all printed documents without allocation information; all printed jobs that are not linked to an allocation profile.

This query provides a simplified result with information such as the domain, the user, and the number of printed pages.

This query displays all jobs without allocation information.

Job type summary grouped by allocation information

Lists job types grouped by allocation information provided.

Job type summary grouped by allocation information and user

Lists job types grouped by allocation information and user information.

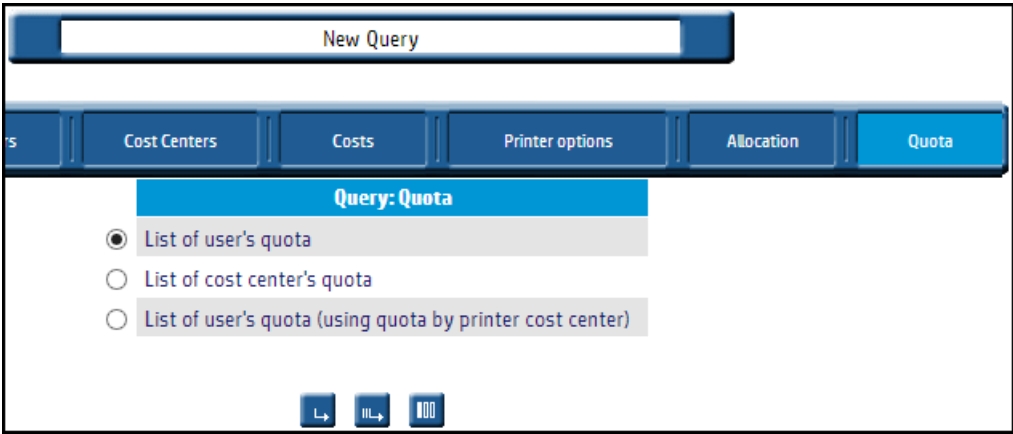
Job type summary grouped by user and allocation information

Lists job types grouped by user information and allocation information.

11.2.1.7 Quota

The queries for this theme enable information to be gathered on allocation capability. For instance, you will have the ability to research using various criteria such as the allocation profile and the time period.

Figure 11-8 Query quota



List of user's quota

Lists all values relative to each user.

List of cost center's quota

Lists all values relative to each cost center.

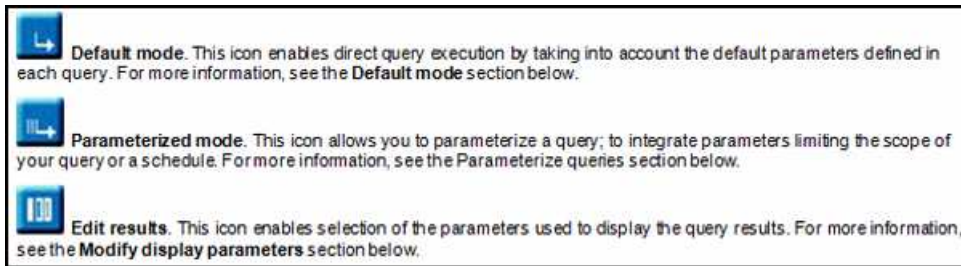
List of user's quota (using quota by printer cost center)

Lists all values relative to each user by printer cost center.

11.2.2 Launch a query

Launched queries can be in one of these two modes: default or parameterized. When viewing the New Query page, note the three icons at the bottom of the page:

Figure 11-9 New Query page



11.2.3 Default mode

With the Default mode icon, you will be able to launch a query immediately. This mode is mostly used for queries for which few resources (such as CPU or memory) are required, or for which an immediate result is necessary. The default mode will launch a query with the default parameters. This means the printing date will be between 1/1/2000 and 12/31/2020, and it will run for all users, printers, and print servers.

This mode must be used for very simple queries such as “list of users,” “list of printers,” or “total number of pages printed by...” For complex queries, it is recommended to filter on a date range, a specific user, or a specific printer; and the parameterized mode must be used.

For more information on how to view your query results, see the Display results section of this guide.

CAUTION: Some update processes are not synchronized to avoid penalizing printing times and servers—therefore some results can have incomplete or erroneous data. Wait a short while and then run the query again, and your data should be corrected. By launching a query in this mode, you will take all default parameters into account. For more information on default parameters, see the Parameterize queries section of this guide.

Use the following steps to perform a query using the Default mode:

1. Select a query.
2. Click the **Default mode** icon.

A progress message appears to verify that the query is running. The query table appears.

11.2.4 Parameterized mode

The Parameterized mode icon provides search parameters that focus the scope of returned information. You will also be able to schedule your query so that its launch does not burden processors during peak hours (such as at night) or at regular periods (for example, daily or monthly). This mode allows you to benefit from synchronized information, using the most recent data available. It is also an advantage for queries that are complex or lengthy to perform, or that require a lot of CPU and memory resources.

For more information on query types, see the HP Access Control (HP AC) Job Accounting queries section of this guide.

To perform a parameterized query, complete the following steps:

1. Select a query.
2. Click the **Parameterized mode** icon.

Figure 11-10 Parameterized mode

11.2.5 Edit results

The various fields (parameters) in this page depend on the query launched. For more information on these parameters, see the Parameterize queries section, below.

The buttons along the top enable you to:

- Schedule your query by clicking **Schedule**. For more information, see the Schedule queries section of this guide.
- Launch your query by clicking **Go** after having parameterized or scheduled your query. For more information, see the Display results section of this guide.

11.3 Parameterize queries

This page lists parameters used to limit your search scope, to obtain a more precise result that is closer to your search objectives. If no parameters are defined, the query will utilize default values.

CAUTION: If you use the default launching mode, only the default parameters will be considered. If no Start Date and Start time are specified, the data queried encompasses all documents printed since HP Access Control (HP AC) Job Accounting installation. If no End Date and End Time are specified, the data queried encompasses all documents printed until the most recent date (the current date/hour).

The following rules apply to time periods:

- For the *year* unit, all months for the years specified in the Date fields.
- For the *month* unit, all weeks for the months specified in the Date fields.
- For the *week* unit, all days for the weeks specified in the Date fields.
- For the *day* unit, all days specified in the **Date** fields.

11.3.1 Name a query

Each user maintains a unique query name in order to initiate queries. By default, the query name consists of the query theme followed by the _ symbol and the number of queries you have already launched.

11.3.2 Recipient email addresses

Transmitting query results to one or several recipients is accomplished by specifying email addresses or distribution lists of recipients.

Click in the field and enter an email address, or click the Recipient email address  icon to open the address book containing all predefined addresses and lists (see the HP Access Control (HP AC) Job Accounting administration section of this guide). You can specify several addresses or lists, which will automatically be separated by a semicolon. This field may contain a maximum of 499 characters, symbols, and figures.



NOTE: Lists appear at the bottom of the pull-down menu, in the gray area. Individual addresses appear at the top of the pull-down menu, in the white area.

Error messages may appear for the Recipient email address field under the following conditions:

- No sender address defined: no sender address has been specified in the User options section. Any message must be identified by a sender.
- No mail server defined: no email server has been configured in the Email system section of the Administration menu, which means that no email message can be sent. This message only appears if you have administrator rights.

These errors do not prevent a query from being executed, but they highlight the fact that the results will not be sent.

11.3.3 Select the domain

This parameter enables you to select several users belonging to the same domain to query. Click the arrow to get the list of all domains from which documents have already been printed. If you select a particular domain, the End user field will automatically be filled with the names of all end users attached to this domain. By default, this includes all domains detected by HP Access Control (HP AC) Job Accounting.

11.3.4 Group

Since a domain may contain several groups, users can refer to any end user group attached to the same network. Click the arrow to get the list of all groups from which documents have already been printed. If you select a particular group, the End user field will automatically be filled with the names of all end users attached to the group. By default, all groups are included.

11.3.5 End user

Choose which particular end user to query. If you select an end user, the domain to which the user is attached appears in the Domain/group fields. By default, all end users that have executed a print command since HP Access Control (HP AC) Job Accounting installation will be considered.

11.3.6 Document titles starting with...

Enables users to select documents whose title starts with a specified string. You can enter up to 64 characters, symbols, and figures. If this field is empty, the default returns all documents printed since the original HP Access Control (HP AC) Job Accounting installation.

11.3.7 Print server

Choose which HP Access Control (HP AC) Job Accounting Print Server (HP ACJA PRINT SERVER) you want to query. By default, all print servers are included.

11.3.8 Printer queue

Choose a printer queue in the list provided by HP Access Control (HP AC) Job Accounting. A printer queue is a printer declared on a server using a specific port monitor or driver. A physical printer can be declared several times on the same server using different ports or drivers.

11.3.9 Set printer models

A printer model consists of all printers of the same model; for instance, all HP 4500 LaserJet printers. By default, all printer models are included.

11.3.10 Printer

Choose one printer to query.

11.3.11 Date

The Date field enables you to specify a time interval during which documents were printed. This time interval is limited by precise start and end dates. Date is the default value for defining a time interval during which documents were printed.

11.3.12 Printing date from

This parameter enables you to define the start of a time interval—your query will only focus on the documents printed from the date and time defined in this field. The possible dates range from 01/01/2000 at 00:00:00 to 31/12/2020 at 23:59:59. The default date is the current date and time.

Parameterize queries 103 of the database server. All documents printed since HP Access Control (HP AC) Job Accounting installation are taken into account.

11.3.13 To

This parameter enables you to define the end of a time interval—your query will only focus on the documents printed up to the date and time defined in this field. The date range is identical to the field Printing date from. The default date and time in this field are the current date at 23:59:59. All documents printed up to the current date are included.

11.3.14 Time lapse

This option enables you to collect data related to documents printed during a certain time interval. Date is the default value for defining a time interval during which documents were printed.

11.3.15 Printing for the last...

This option enables you to define a time interval in days, months or years, during which documents were printed. The last interval day is always the day, when you are launching your query. By default, all documents printed up to the current date are included. This parameter appears only if you select the Time Lapse parameter.

11.3.16 First n...

This option enables you to define the maximum number of a query parameter (such as user, printer, or printer model). The default value in this field is 10. This parameter does not affect all queries.

11.3.17 Number of printed pages

Sets a limit (greater than, less than, or equal) regarding the number of printed pages. By default, all documents printed since HP Access Control (HP AC) Job Accounting installation are included.

11.3.18 Printing cost

Sets a limit (greater than, less than, or equal) to the actual printing cost (not the fixed cost). By default, all documents printed since the HP Access Control (HP AC) Job Accounting installation are included.

 **CAUTION:** The decimal symbol is a period (.).

11.3.19 Currency

Enables you to choose your cost currency in the pull-down menu. The default currency is the currency defined in the user options. For more information on user options, see the HP Access Control (HP AC) Job Accounting user options section of this guide.

11.4 Schedule queries

From this page, you can perform the following actions:

- Change the way you launch queries to obtain more correct and precise results, by benefiting from all updates. These updates, for optimization and performance reasons, are not all executed in real time. You can also change the way queries are launched so that you do not overload your server.
- Plan your query so that it is launched regularly (such as every week or every month).
- You can reach the schedule page by clicking **Schedule**. The following prompt appears:

Figure 11-11 Schedule queries

The screenshot shows a window titled "List of devices" with three tabs: "Query", "Schedule", and "Go". The "Schedule" tab is active. Below the tabs, there are three sections: "Frequency" with a dropdown menu showing "Once"; "Start date" with three dropdown menus showing "April", "07", and "2008"; and "Start time" with three dropdown menus showing "hh 19", "mm 58", and "ss 26".

The following page enables you to schedule your query in detail. The default frequency is **Once**. You can choose among the following frequencies:

Figure 11-12 Query frequencies

The screenshot shows the "List of devices" window with the "Frequency" dropdown menu open. The menu lists the following options: "Once", "Daily", "Weekly", "Monthly", "Monthly, with relative interval", and "Run when the computer is idle". The "Once" option is currently selected.

When choosing a particular frequency, new fields will appear on the page. The appearance of these fields depends on your selection.

11.4.1 Once

Use this value to launch your query once, at a time specified by the **Start date** and **Start time** fields. By default, both fields are defined to the date and time on which you are launching your query. If the query is scheduled to be launched at a date and time before the current date (defined in the Start date and Start time fields), the query is immediately launched. The parameters are defined in the parameter page.

11.4.2 Daily

This query will run once or several times a day, every day or at a regular interval, during a certain time interval as specified in the Start/End Date/Time fields.

Figure 11-13 Query frequency: daily

The screenshot shows a configuration window titled "List of devices". It contains several fields for scheduling a query:

- Frequency:** A dropdown menu set to "Daily".
- Frequency interval:** A text input field containing "1" followed by "day(s)".
- Daily frequency:** A dropdown menu set to "At the specified time".
- Start date:** Three dropdown menus for month, day, and year, showing "April", "07", and "2008".
- End date:** Three dropdown menus for month, day, and year, showing "December", "31", and "2020".
- Start time:** Three dropdown menus for hours, minutes, and seconds, showing "hh 19", "mm 58", and "ss 26".
- End time:** Three dropdown menus for hours, minutes, and seconds, showing "hh 23", "mm 59", and "ss 59".

Frequency interval

Define the day interval—for example by entering 2 in this field, your query will run every 2 days. The default value in this field is 1, meaning that your query will run every day.

Daily frequency

Choose how often within one day the query will run. With the default option, at the specified time the query will be launched at the time defined in the Start time field. You can also choose to launch your query regularly every n minutes or hours.

Daily interval

Specify the actual minute or hour interval. This field only appears if you selected minutes or hours in the Daily frequency field. The default value is 1, meaning that your query will generate statistics every minute or every hour.

Start/End Date/Time

Specify the actual minute or hour interval. This field only appears if you selected minutes or hours in the Daily frequency field. The default value is 1, meaning that your query will generate statistics every minute or every hour.

11.4.3 Weekly

This query will run once or several times a day, on one or several days, during one or several weeks.

Figure 11-14 Query frequency: weekly

List of devices	
Frequency Weekly	Frequency interval ☒ s ☐ m ☐ t ☐ w ☐ t ☐ f ☐ s
Daily frequency At the specified time	
	Reccurence 1
Start date April 07 2008	End date December 31 2020
Start time hh 19 mm 58 ss 26	End time hh 23 mm 59 ss 59

Daily frequency

Choose how often within one day the query will run. With the default option, the query will be launched at the time defined in the Start time field. You can also choose to launch your query regularly every n minutes or hours.

Daily interval

Specify the minute or hour interval. This field only appears if you selected minutes or hours in the Daily frequency field. The default value is 1, meaning that your query will generate statistics every minute or every hour.

Recurrence

Define the number of weeks between each query launch. The default value is 1, which means that your query will generate statistics every week. To generate statistics every 2 weeks, for example, enter 2 in this field.

Start/End Date/Time

Define the date and time the query will start and end. By default, Start date is the current date and Start time is the current time. When no End date is specified, the query will generate statistics until 31/12/2020 at 23:59:59.

11.4.4 Monthly

This setting will schedule a query to run once or several times a day, on one day, during one or several months.

Figure 11-15 Query frequency: monthly

List of devices	
Frequency Monthly	Frequency interval on the 1 day(s) of the month
Daily frequency At the specified time	
	Reccurence 1
Start date April 07 2008	End date December 31 2020
Start time hh 19 mm 58 ss 26	End time hh 23 mm 59 ss 59

Frequency interval

Select the day of the month when the query is launched. The default value is 1, meaning that your query will run on the first day of every month.

Daily frequency

Choose how often within one day the query will run. With the default option, at the specified time the query will be launched at the time defined in the Start time field. You can also choose to launch your query regularly every n minutes or hours.

Daily interval

Specify the actual minute or hour interval. This field only appears if you selected minutes or hours in the Daily frequency field. The default value is 1, meaning that your query will generate statistics every minute or every hour.

Recurrence

Define the number of months between each launching of your query. The default value is 1, which means that your query will generate statistics every month. To generate statistics every 2 months, for example, enter 2 in this field.

Start/End Date/Time

Define the lapse time (date and time) during which the query is launched. By default, Start date is the current date and Start time is the current time. When no End date is specified, the query will generate statistics until 31/12/2020 at 23:59:59.

11.4.5 Monthly with relative interval

This setting is the same as the monthly frequency, except you can specify an actual day for the query to run.

Figure 11-16 Query frequency: monthly, with relative interval

List of devices	
Frequency Monthly, with relative interval	Frequency interval Sunday
Daily frequency At the specified time	
Relative interval First	Reccurence 1
Start date April 07 2008	End date December 31 2020
Start time hh 19 mm 58 ss 26	End time hh 23 mm 59 ss 59

Frequency interval

Select one day (such as Monday or Friday). You can also select the Day, Weekday, or Weekend day options.

Relative interval

Choose the week of the month; such as the first week.

Daily frequency

Choose how often within one day the query will run. With the default option, at the specified time the query will be launched at the time defined in the Start time field. You can also choose to launch your query regularly every n minutes or hours.

Daily interval

Specify the minute or hour interval. This field only appears if you selected minutes or hours in the Daily frequency field. The default value is 1, meaning that your query will generate statistics every minute or every hour.

Recurrence

Define the number of months between each launching of your query. The default value is 1, which means that your query will generate statistics every month. To generate statistics every 2 months, for example, enter 2 in this field.

Start/End Date/Time

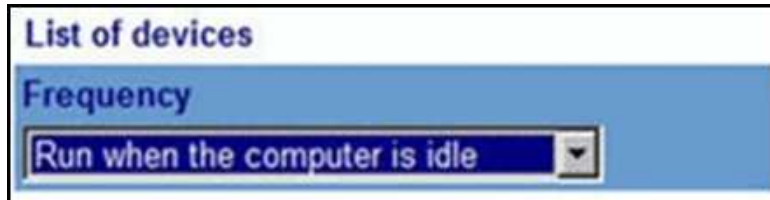
Define the lapse time (date and time) during which the query is launched. By default, Start date is the current date and Start time is the current time. When no End date is specified, the query will generate statistics until 31/12/2020 at 23:59:59.

11.4.6 Run when idle

When utilizing this process, queries are launched when no other processes are being performed on the database server—such as during off hours.

 **NOTE:** This mode is valid only if SQL Server Agent is used. This query frequency helps you manage statistical reports requiring a lot of information.

Figure 11-17 Query frequency: run when computer dies



11.4.7 Modify display parameters

Before launching a query, you can get the list of all information returned by your query. You can also hide some of this information, such as the columns of the tables in which your results are displayed.

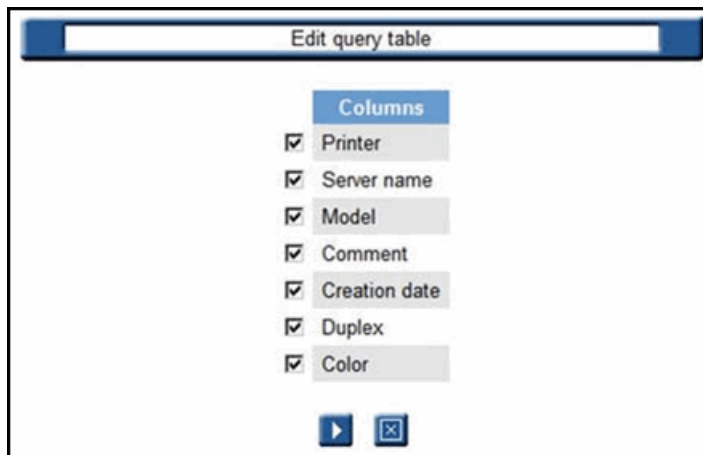
 **NOTE:** This function only affects your results display, not the parameters used to obtain these results.

 **NOTE:** Although this function is available for all display types (tables, spreadsheets, diagrams) it is not very useful when applied to diagrams (pie charts, line charts, columns).

In the **Queries in Progress** page:

1. Select the query to modify.
2. Click the **Edit results** icon of the selected query. The information returned by this query appears:

Figure 11-18 Edit query table



By default, all information elements are selected. Click the box in front of any elements you want to hide to unselect it. You can unselect multiple elements. Click the Go  icon to accept the selections, or the Cancel  icon to stop the operation. When this query is subsequently launched, the results will be displayed without including the deselected columns.

12 Query results

After a query is launched, the statistics related to that query are pulled from the database. The information is retrieved and transmitted back to the HP Access Control (HP AC) Job Accounting administrator or user in various display formats (such as a chart, table, or spreadsheet) available for each query.

The statistical reports generated by launching queries are referred to as “results.” Each query result, whatever its format, contains:

- The query name
- The date and time the query was launched
- Parameters
- The number of pages if the spreadsheet or table contains more than one page

The level of detail you will obtain in your query results depends on the printers managed by HP Access Control (HP AC) Job Accounting, particularly on the printer model, its sophistication level, and the communication language (PCL 5, 5e, 6).

You can modify the display of your query results by hiding some parameters. For more information, see the [Modify the display](#) section of this guide.

You can also change the number of lines displayed in your lists. For more information, see the [HP Access Control \(HP AC\) Job Accounting user options](#) section of this guide.

12.1 Query table

To obtain the list of the queries you launched or queries in progress and access their results, click **Queries in progress** in the HP Access Control (HP AC) Job Accounting remote control. All launched queries are displayed in a table containing several columns:

Figure 12-1 Queries in progress

Queries in progress										
	Themes	Query name	Status	Schedule date	Result date	Schedule parameters	Result display	Other display types	Previous results	Edit results
☐	Printers	Printers_4	✓	04/17/2012 10:01:07	04/17/2012 10:01:07					
☐	Costs	Costs_6	---	04/17/2012 10:00:59					2	
☐	Costs	Costs_5	---	04/17/2012 10:00:50					2	
☐	Printers	Printers_3	✓	04/17/2012 10:00:01	04/17/2012 10:00:01					
☐	Users	Users_3	✓	04/17/2012 09:55:55	04/17/2012 09:55:56					



NOTE: You can only view queries attached to your HP Access Control (HP AC) Job Accounting account.

This table lists the type, status, and schedule of your queries, the date and time when they were launched, the date and time when the result was obtained, and various ways to display their results.

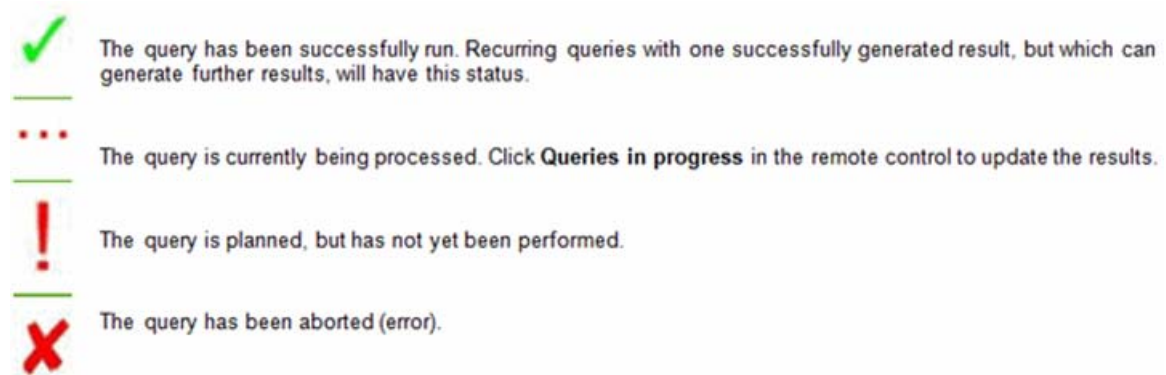
The date format in the charts and in the query table is the format defined in your regional settings. To modify this format, see the [HP Access Control \(HP AC\) Job Accounting user options](#) section of this guide.

You can sort the **Themes**, **Query name**, and **Status columns** in alphabetical order by clicking the column title. You can also sort the schedule and result dates by ascending or descending order.

12.2 Query status

The **Status** column displays the status of your queries. The possible status results follow:

Figure 12-2 Query status — possible results



By keeping your mouse cursor on the Modify  icon, all details related to your query schedule and the **Schedule Parameters** page appears and offers the following options:

- The name you gave to the query (or its default name).
- All details concerning its schedule frequency, such as if it is launched only once or regularly, how often, and for how long. If the **Once frequency** appears in these details without any other parameter, it means that no schedule is specified for this query.

To modify the query parameters or schedule, see the Modify parameters section of this guide.

12.4 Display results

You can display your results by clicking on one icon in the **Result display** or **Other display types** columns.

These columns are part of the query table, which you access by clicking the **Queries in progress** icon in the HP Access Control (HP AC) Job Accounting remote control.

Using the icons in these columns, you will be able to display your results in a table or a spreadsheet. To display your results in a spreadsheet or a chart, Excel must be installed on your machine. When sending results by email, only the results in the spreadsheet format are sent. Your results recipients should have Excel installed on their machine.

 **NOTE:** If Microsoft Excel is not installed on the system, the icon will not appear.

12.4.1 Information provided

All display types provide you with the following information:

- the name and type of the query
- the date, when the query result was generated
- the parameters (including the printing time range)

This information is listed as in the frame below:

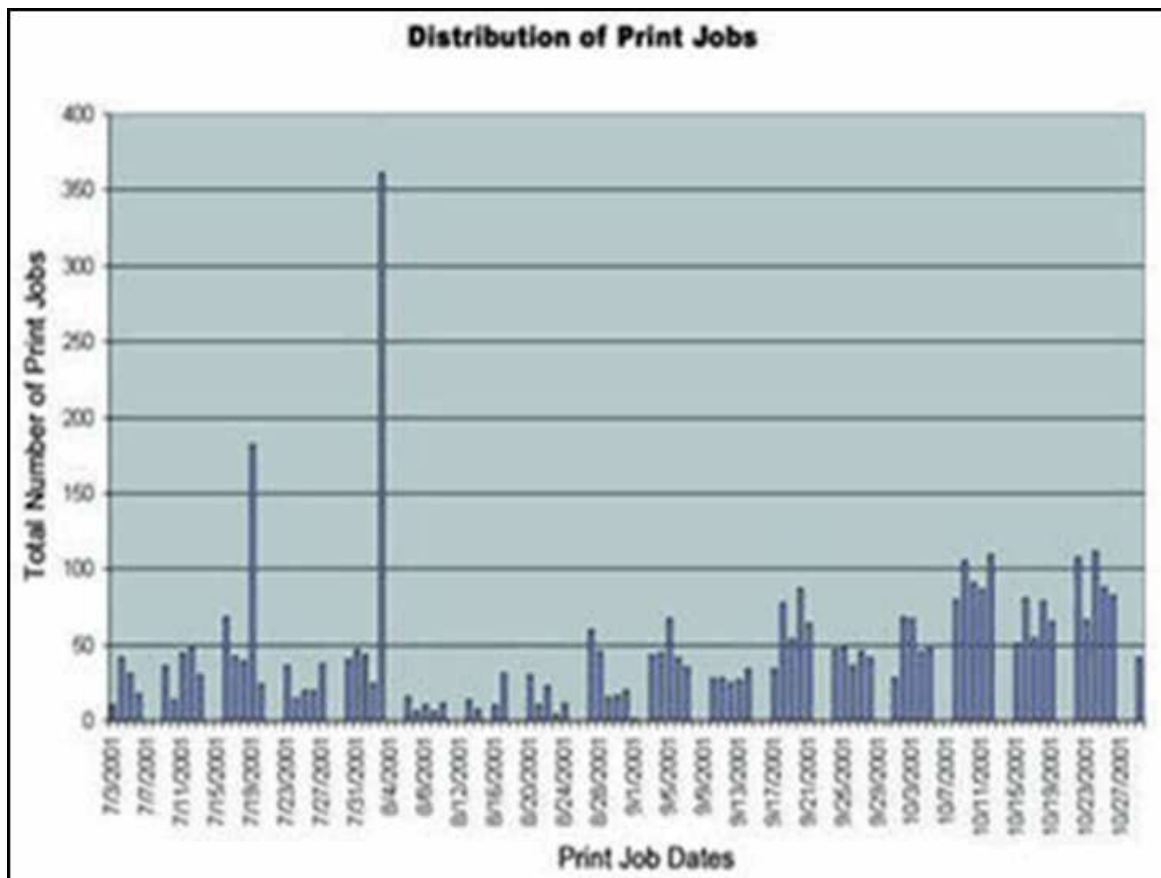
Figure 12-3 Query information

Printing List
Detailed list of printed documents per domain/group/user
Result date : 05/11/2004 13:24:24
Domain : all
Group : all
End user : all
Printing date from : 01/01/2000 00:00:00
To : 12/31/2020 23:59:59
Number of printed pages : all
Printing cost : all
Currency : USD

12.5 Display types

Click one icon in the **Result** display and **Other** display types columns to display your results. Each icon corresponds to a specific display type (such as table, graph, or spreadsheet). The various display types follow:

Figure 12-4 Chart display



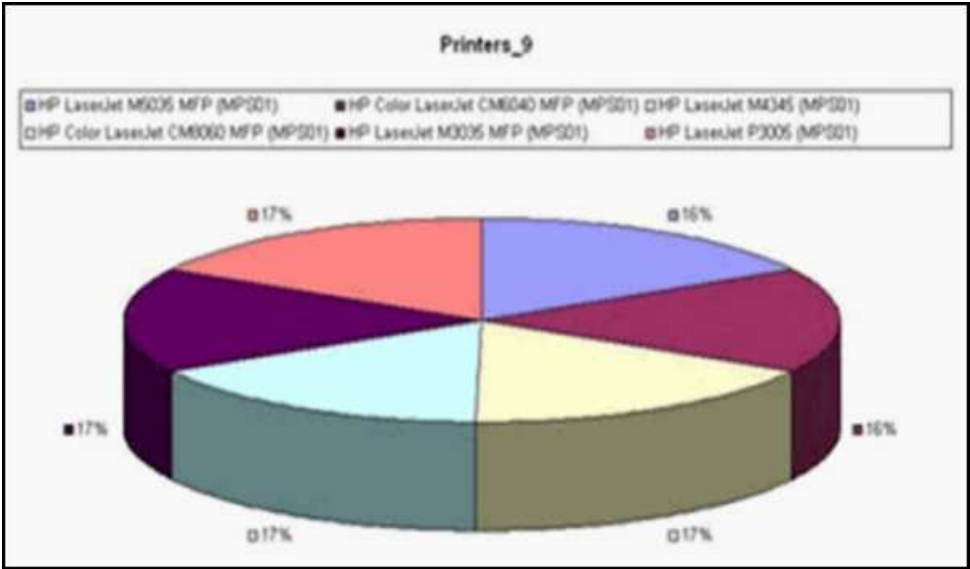
The task bar at the top of the page allows you to choose another chart to display your results. Click directly on the display desired, and it will automatically change.

Figure 12-5 Chart display task bar



Click the **Pie chart** icon to present information in a traditional pie chart, as shown in the figure below:

Figure 12-6 Pie chart



The task bar at the top of the page allows you to choose another type of pie chart to display results. Click directly on the display desired and it will automatically change.

Figure 12-7 Pie chart task bar



Click the Table chart  icon to present the information in a table.

Figure 12-8 Table chart

Queries in progress										
	Themes	Query name	Status	Schedule date	Result date	Schedule parameters	Result display	Other display types	Previous results	Edit results
☐	Printers	Printers_4	✓	04/17/2012 10:01:07	04/17/2012 10:01:07					
☐	Costs	Costs_6	---	04/17/2012 10:00:59					 2	
☐	Costs	Costs_5	---	04/17/2012 10:00:50					 2	
☐	Printers	Printers_3	✓	04/17/2012 10:00:01	04/17/2012 10:00:01					
☐	Users	Users_3	✓	04/17/2012 09:55:55	04/17/2012 09:55:56					

Figure 12-9 Result display

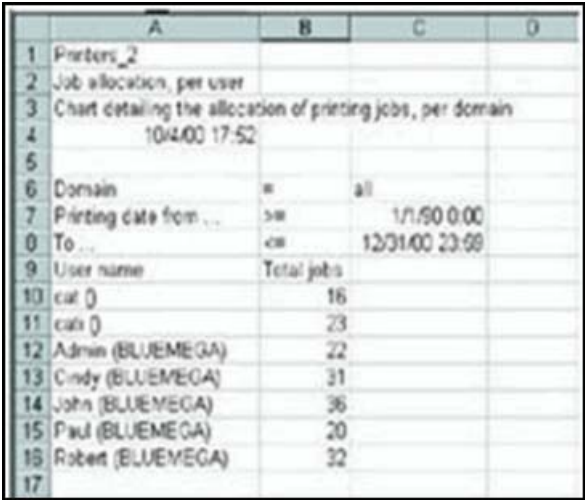
Result display	
Costs_1	
Printing costs per server/printer model per year	
Result date : 02/01/2006 23:01:36	
Print server : all	
Printer model : all	
Printing date from : 01/01/2000 00:00:00	
To : 12/31/2020 23:59:59	
Currency : USD	
Printing date	Total cost
2000	0
2001	0
2002	0
2003	0
2004	0
2005	0
2006	0
2007	0
2008	0
2009	0

You can modify the number of lines displayed in a table in your User options. For more information on how to modify this number, see the HP Access Control (HP AC) Job Accounting user options section of this guide.

 **NOTE:** If **Copy job** appears in the **Document name** column, the job is a copy job, not a print job.

Clicking the Excel icon formats the information into a standard Microsoft Excel spreadsheet. This is the only option that allows you to save your query results. To save, use the **Save As** command in Excel.

Figure 12-10 Excel spreadsheet



	A	B	C	D
1	Printers_2			
2	Job allocation, per user			
3	Chart detailing the allocation of printing jobs, per domain			
4	10/4/00 17:52			
5				
6	Domain	=	all	
7	Printing date from ...	>=	1/1/00 0:00	
8	To ...	<=	12/31/00 23:59	
9	User name	Total jobs		
10	cat ()	16		
11	cat ()	23		
12	Admin (BLUEMEGA)	22		
13	Cindy (BLUEMEGA)	31		
14	John (BLUEMEGA)	36		
15	Paul (BLUEMEGA)	20		
16	Robert (BLUEMEGA)	32		
17				

 **NOTE:** To view your results in a spreadsheet, Excel must be installed on your computer.

 **TIP:** You may have to resize some columns to view the complete contents of a cell, such as when ##### appears in a cell.

Clicking the **Query results** icon lists all results generated by a recurring query. The number next to this icon represents the number of results generated by this recurring query.

When clicking this icon, a new list containing all results and display icons for this query appears, as shown in the figure below:

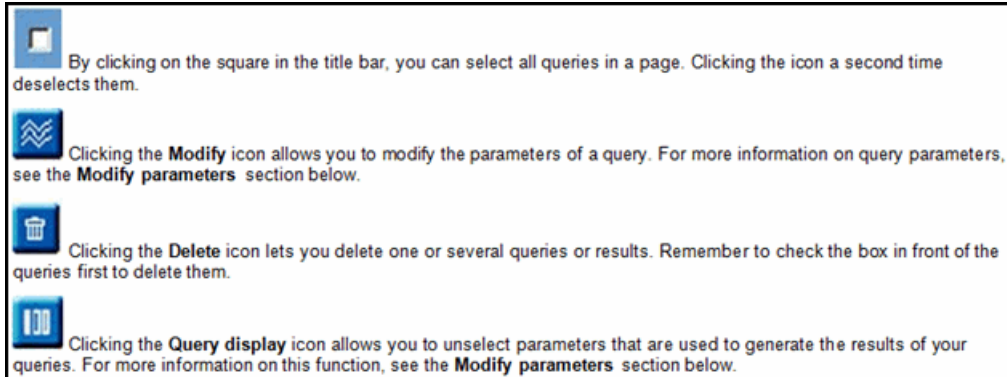
Figure 12-11 Query results

Themes	Queries	Query name		
Users	Detailed list of printed documents per domain/group/user	Usuarios_83		
				
 	Result date	Result display	Other display types	Edit results
☐	07/01/2004 11:27:22			
☐	06/25/2004 11:31:11			

12.5.1 Manage results

By clicking the **Query in progress** icon in the HP Access Control (HP AC) Job Accounting remote control, you reach the query table. This table contains the same icons as any HP Access Control (HP AC) Job Accounting lists.

Figure 12-12 Manage results



12.5.2 Modify parameters

Launching parameters can be modified. This function will be used by recurring queries for which you want to modify or stop the launching mode. The only parameter you cannot change is the query name.

Click the **Modify** icon for this query to bring up the parameters page, as shown in the figure below:

Figure 12-13 Modify query parameters

Printed documents per server/print queue (Detailed list)

Name
Printing List

Recipient e-mail address

Print server
All print servers

Printer queue
All printer queue

Job type
All types

Document titles starting with Allocation code

☒ Date ☐ Time lapse

Printing date from ... (Today) To ... (Today)
January 01 2000 December 31 2020
hh 00 mm 00 ss 00 hh 23 mm 59 ss 59

> Number of printed pages <
>> Printing cost <<

Currency
US dollar

All parameters (default or defined) appear. For more information on parameters, see the [Parameterize queries](#) section of this guide.

Modify your parameters as desired. Click **Schedule** to modify your schedule parameters.

For more information on scheduling your query, see the [Schedule queries](#) section of this guide.

Click the Go  icon to launch your query with its new parameters or schedule. You directly reach the query table.

Your new parameters take effect even though the query name stays the same.

12.5.3 Modify the display

When you view your query results, you may decide some information is not relevant. You can deselect this information by checking the box in front of a query result in the query table and then clicking the **Query display** icon. The list of the display columns appears. By default, all columns are selected.

Uncheck the box in front of the parameter to remove it, then click the Go  icon to accept your choice. You directly reach the query table.

Unlike the result modification available from the **New query** page as described in the **Modify display parameters** section of this guide, this modification only applies to the selected result. In the case of a recurring query, all results of this query are modified.

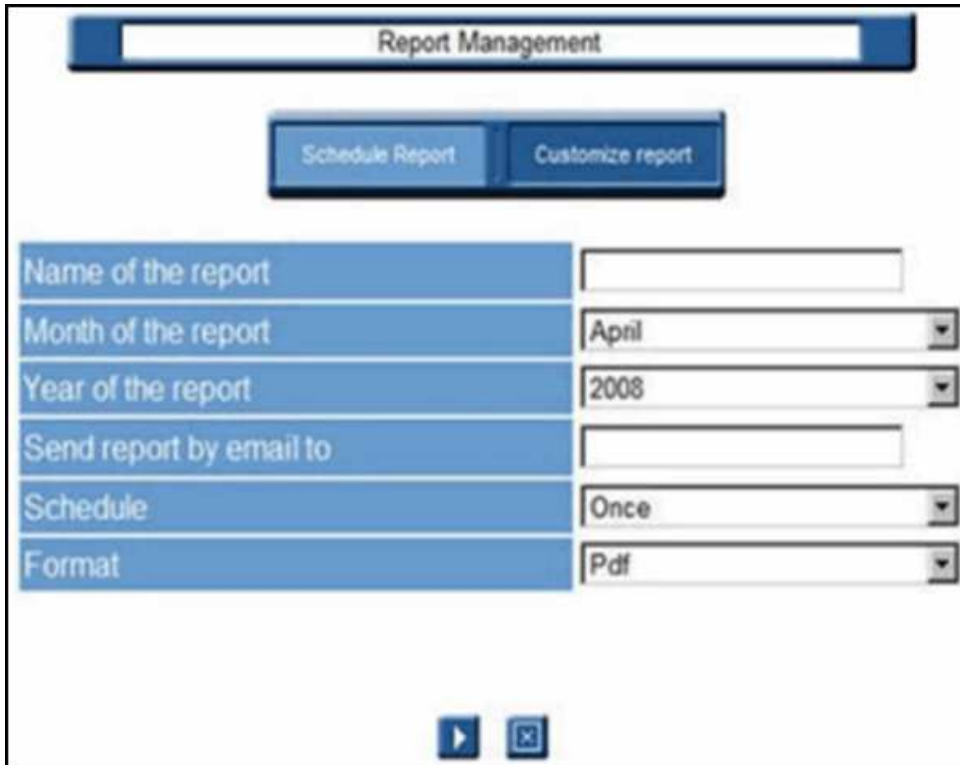
 **CAUTION:** You can only modify the results of one query at a time.

13 Report management

13.1 Report management page

Click **Summary Report** on the HP Access Control (HP AC) Job Accounting remote control to access the Report Management page:

Figure 13-1 Report management screen



The screenshot shows a web interface titled "Report Management". At the top, there are two buttons: "Schedule Report" and "Customize report". Below these are several input fields and dropdown menus:

Field	Value
Name of the report	
Month of the report	April
Year of the report	2008
Send report by email to	
Schedule	Once
Format	Pdf

At the bottom of the form, there are two small icons: a play button and a close button.

Through the **Report Management** page, you can quickly generate comprehensive, all-encompassing reports to illustrate print usage. Since reports have only a few, basic settings, they are much more convenient and easier to run than full queries. Reports can be manually run at any time, or can be scheduled to occur either weekly or monthly.

After a report has been requested and compiled, it can be saved in Adobe Acrobat (PDF), Microsoft Excel (.xls), or Microsoft Word (.doc) format and can be automatically forwarded through email to a designated individual.

13.1.1 Create a report

To create a report:

1. In the field **Name of the report**, enter the name you wish to appear on the title page of the report.
2. Choose a month from the **Month of the report** dropdown menu.



NOTE: Reports contain data from a three-month period ending on the requested month.

3. Select a year from the **Year of the report** dropdown menu.
4. If you wish to forward a copy of the report to someone automatically, enter their email address in the **Send report by email to** field.
5. Schedule the report. Choose an option from the dropdown list:
 - **Once** — The report will be generated only once, when validated (Step 7).
 - **Weekly** — The report will be generated weekly, according to the **Day** and **Start time** parameters selected before validation.
 - **Monthly** — The report will be generated monthly, according to the **Day** and **Start time** parameters selected before validation.
6. Format the report. Choose an option from the dropdown list.
 - **PDF** - The report will be generated in a format compatible for reading with Adobe Acrobat Reader.
 - **Excel** - The report will be generated as a Microsoft Excel spreadsheet.
 - **Word** - The report will be generated as a Microsoft Word document.
7. Click **validate** to generate the report.
8. Schedule a report. If you choose the **Weekly** or **Monthly** option, click **Schedule Report** after setting schedule parameters.
9. Customize a report. Click **Customize Report** to set specific parameters for your report.

Figure 13-2 Customize report

Customize report

Schedule Report Customize report

Available information

Title

- ☒ Title

Environment

- ☒ Environment

Global Numbers

- ☒ Global Numbers

Detail

- ☒ Printing Volume by User
- ☒ Copy Volume by User
- ☒ Users printing in color
- ☒ Users copying in color
- ☒ Users printing in duplex mode
- ☒ Users copying in duplex mode

The amount of time it takes to generate the report depends on the number of jobs printed over the three-month period. If you wish reports to run automatically in the future, select either **Weekly** or **Monthly** from the **Schedule** dropdown list.

After the report is generated, a link appears on the page.

Figure 13-3 View report link

The screenshot shows a web interface titled "Report Management". At the top, there are two buttons: "Schedule Report" and "Customize report". Below these are several input fields and dropdown menus:

Name of the report	Tryout
Month of the report	April
Year of the report	2008
Send report by email to	
Schedule	Once
Format	Pdf

Below the form, there is a blue button that says "View the report (4/7/2008 10:46:01 PM)". At the bottom of the interface, there are two small icons: a play button and a document icon.

Click the link to view and print the report using Adobe Acrobat (.pdf), Microsoft Word (.doc), or Microsoft Excel (.xls); or right-click the link and save the report to a location of your choosing.

 **NOTE:** Each new report is saved to the same location with the same name. If you wish to keep a report, save the file to another location before requesting a new report.

14 Allocation

The allocation feature allows additional information to be linked to print jobs. This can be useful for determining billing and expenses.

Figure 14-1 Allocation screen



14.1 Create allocation profiles

Use the following steps to create an allocation profile:

1. From the Allocation page, click **Create Profile**.

Figure 14-2 Create allocation profile

The screenshot shows the 'Create an allocation profile' form. It has a title bar labeled 'Create an allocation profile'. Below it are two input fields: 'Profile name' and 'Number of fields'. At the bottom are two buttons: a blue arrow button and a document icon button.

2. Name the profile you want to create. Be aware that all profiles must have unique titles; two profiles cannot share the same name.
3. Enter number of fields you want to attach to the profile. This number must be less than or equal to 5.

4. Click the Go  icon to accept the information, or the Cancel  icon to stop the operation.

Figure 14-3 Allocation profile information



Field name	Data type	Input type
	Numeric	Free
	Numeric	Free
	Numeric	Free
	Numeric	Free

5. Give a name to the fields of the profile and specify their data type and their input type.

Possible data types:

- Numeric
- Text
- Date (day/month/year or month/day/year)
- True/False

Possible input types:

- Free (free input in the field when the popup window appears)
- List (predefined list of values)
- Fixed (a value can be fixed by default)



NOTE: The names of the fields must be different. You cannot choose the input type for Boolean.

6. Click the Go  icon to accept the information, or the Cancel  icon to stop the operation.

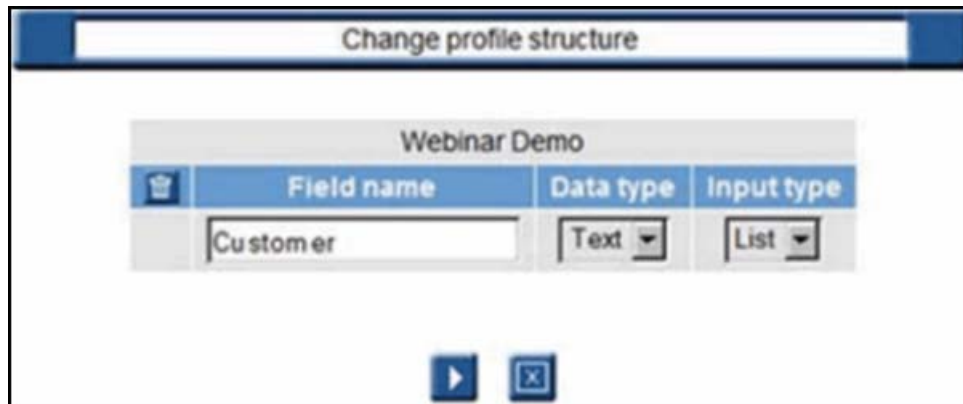
14.2 Modify profile structure

You can change the structure of an allocation profile only if it has not been linked to a printed job. Otherwise, the structure cannot be modified.

To edit a profile, select any of the following:

- Click **Change profile structure**:

Figure 14-4 Change profile structure



- Change the **Field name**, **Data type**, or **Input type** of a profile
You can modify a **Field name**, the **Data type**, or the **Input type**.
 - Delete one or more fields in a profile
If no job is linked to the allocation profile, you can delete one or more fields.
1. Click the **change profile structure** icon.
 2. Select the field you want to delete, then click the Delete  icon.

Figure 14-5 Verify delete fields



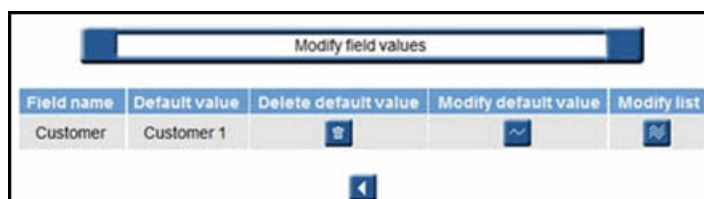
3. Click the Go  icon to accept the deletion, or the Cancel  icon to stop the operation.

14.3 Modify field values

In this section we will assign a default value in the fields of a profile.

1. Click **Allocation** on the HP Access Control (HP AC) Job Accounting remote control.
2. Click **Modify field values**.

Figure 14-6 Modify field value

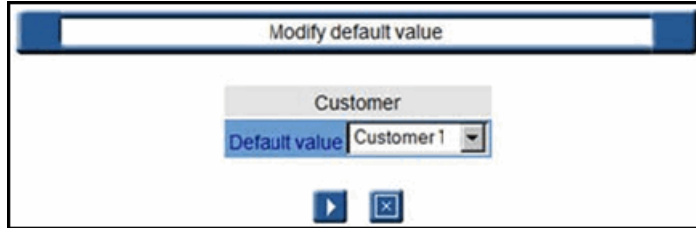


14.4 Modify default value

Complete the following steps to modify default values:

1. Click **Modify default value** to assign a default value.

Figure 14-7 Modify default value



 **NOTE:** The appearance of this window may vary according to the input type you previously defined in the field (Free, List, or Fixed).

2. Select your default value and validate. The selected default value will be displayed in the **Default value** column.

 **NOTE:** The default value is the value that is displayed first when the popup window appears.

3. If you need to remove the default value, click the Delete  icon to delete it.

14.5 Modify list

 **NOTE:** You can access this menu only if you have a field with a List as input type.

Use the following steps to create or modify a list of values:

1. Click **Modify list**:

Figure 14-8 Modify list



2. Enter the value you want to add to your list in the **New value** field and click **Add value** to validate.
3. To delete a value, select one or more and then click the Delete  icon.

 **NOTE:** The names of the values must be different.

14.6 Delete allocation profiles

 **NOTE:** You can delete an allocation profile only if no job is linked to this profile.

Use the following steps to delete an allocation profile:

1. Click **Allocation** on the HP Access Control (HP AC) Job Accounting remote control.

Figure 14-9 Select Allocation to delete



2. Select the profile you want to delete.
3. Click the Delete icon.

Figure 14-10 Verify delete allocation



4. Click the Go icon to accept the deletion, or the Cancel icon to stop the operation.

14.7 Link a job to an allocation profile

It is also possible to display the list of the printed jobs with or without allocation information and then link them to a specific profile, as described below:

1. Click **Allocation** in the HP Access Control (HP AC) Job Accounting remote control.
2. Click **Job Allocation**.

Figure 14-11 Job allocation

From this screen, you can use the following filters:

- User (Windows login)
- Document name
- Profile name
- Print server
- Printer
- Allocated (Billed) job (Indifferent/Yes/No)
- Allocation information (Indifferent/Yes/No)

In addition, you can specify a date range when the related jobs were printed. The resulting list of printed jobs can then be linked to an allocation profile after the following page appears:

Figure 14-12 Result display, allocation

Document name	User	Creation date	Link profile to job	Allocated/Not allocated	Modify parameters
Test Page	williamb	11/11/2013 1:41:48 PM	+	×	⊗
Test Page	williamb	11/11/2013 1:41:47 PM	+	×	⊗
Test Page	williamb	11/11/2013 1:38:32 PM	+	×	⊗

The above example shows a job that is not billed and not linked to an allocation profile. To link this job to an allocation profile, use the following steps:

1. Click the **Link profile** icon.

Figure 14-13 Add allocation profile parameters



2. You can use the current profile or choose another one by clicking the Modify  icon

Figure 14-14 Allocation profile



Choose ONE of the available profiles:

- Click the Go  icon to accept the profile, or the Cancel  icon to stop the operation.
- Enter the field values for the selected profile.
- Click the Go  icon to accept again.
- The job is now linked to an allocation profile.

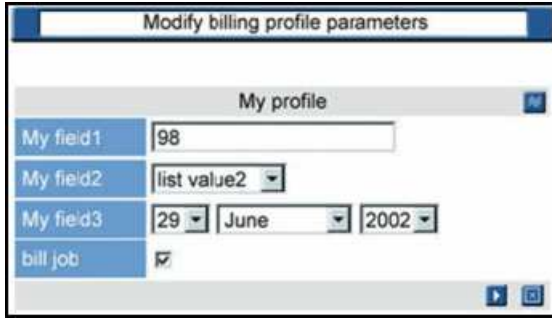
14.8 Modify allocation information

 **NOTE:** After a job is linked to a profile, you cannot remove this link. However, changes can be applied to the field values that make up the profile.

1. Search for the job requiring field value changes.

2. Click the Modify  icon to modify the field.

Figure 14-15 Modify allocation information



Modify billing profile parameters			
My profile			
My field1	98		
My field2	list value2		
My field3	29	June	2002
bill job	☒		

3. Keep the current profile or choose another profile.
4. Change the field values accordingly.
5. Click the Go  icon to accept the modification, or the Cancel  icon to stop the operation.

15 Quota module

This optional HP Access Control (HP AC) Job Accounting feature allows the administrator to set limits on how much each user is permitted to print, copy, or digitally send. A customizable warning message will automatically notify the user as they approach their quota limit. After a user has exceeded their limit, any additional jobs are automatically deleted. Quotas can be automatically renewed after a specified time period has elapsed.

To access the Quota Module, click **Quota** in the HP Access Control (HP AC) Job Accounting tab.

Figure 15-1 Quota module

The screenshot shows the Quota module interface. At the top, there is a search bar labeled "Quota". Below it, there are several tabs: "User", "Cost center", "Quota Printers", "Assign quota printers to cost center", "Defaults", "Import Quota (CSV)", and "Assign cost centers to quota account". The "User" tab is selected. Below the tabs, there is a "Search" bar. The main area displays a table with the following columns: "User Name", "Total print allowed", "Total color print allowed", "Total copies allowed", and "Total color copies allowed". The table lists various users with their respective quotas. Below the table, there are input fields for "User Name", "Total pages allowed", "Total warning flag", "Color pages allowed", "Color warning flag", "Total copies allowed", and "Total color copies allowed".

User Name	Total print allowed	Total color print allowed	Total copies allowed	Total color copies allowed
00000	0/35/S	0/35/S	0/0	0/0
10003243	0/500/S	0/500/S	0/0	0/0
10003312	0/500/S	0/500/S	0/0	0/0
10010446	0/500/S	0/500/S	0/0	0/0
10063417	0/500/S	0/500/S	0/0	0/0
10064156	0/200/S	0/200/S	0/0	0/0
10080032	0/500/S	0/500/S	0/0	0/0
10081001	0/100/S	0/100/S	0/0	0/0
10081709	0/500/S	0/500/S	0/0	0/0
10081770	0/100/S	0/100/S	0/0	0/0
10081817	0/150/S	0/150/S	0/0	0/0
10081856	0/150/S	0/150/S	0/0	0/0
10081864	0/10000/S	0/10000/S	0/0	0/0
10081896	0/500/S	0/500/S	0/0	0/0
10081904	0/150/S	0/150/S	0/0	0/0
10081908	0/100/S	0/100/S	0/0	0/0
10081953	0/150/S	0/150/S	0/0	0/0
10081955	0/100/S	0/100/S	0/0	0/0
10081961	0/500/S	0/500/S	0/0	0/0
10081979	0/150/S	0/150/S	0/0	0/0
10081996	0/10000/S	0/10000/S	0/0	0/0
10082004	0/150/S	0/150/S	0/0	0/0
10082008	0/100/S	0/100/S	0/0	0/0
10082068	0/10000/S	0/10000/S	0/0	0/0
10082188	0/150/S	0/150/S	0/0	0/0

The default **Quota** screen is the User screen, which provides the following information:

1. Specific user names
2. Total number of pages the user is allowed to print/copy/digitally send
3. Total number of pages the user has printed/copied/digitally sent so far
4. Total number of pages remaining for the user
5. Total number of pages remaining before the user is notified with a warning that they are approaching their printing limit
6. Number of color pages the user is allowed to print/copy/digitally send
7. Number of color pages the user has printed/copied/digitally sent so far

8. Number of color pages remaining for the user
9. Number of color pages remaining before the user is notified with a warning that they are approaching their limit of available color pages

15.1 Quota defaults

Default quota values are automatically assigned as users are added to the Quota table. After the default quota is assigned to a user, it can easily be modified later as needed.

To access the Quota Defaults screen, click **Defaults** in the menu bar at the top of the Quota page.

The duration of the quota period can be Daily, Weekly, Biweekly, Monthly, or Quarterly. After the specified duration has lapsed, Quota Auto Review can be checked to instruct HP Access Control (HP AC) Job Accounting to renew a user's quota automatically upon completion of the specified time period.

CAUTION: Make sure the **Quota Auto Review** option is checked. If left unchecked, the user will still be unable to print after the quota period has ended.

Figure 15-2 Quota defaults

The screenshot shows the 'Quota Defaults' configuration page. At the top, there is a navigation bar with the title 'Quota' and four tabs: 'User', 'Quota Printers', 'Defaults' (which is the active tab), and 'Import Quota (CSV)'. Below the tabs, the page is divided into two main columns of settings.

Mode Column:

- Mode:** A group of radio buttons. 'Quota by user' is selected. Other options are 'Quota by cost center', 'Quota by user and cost center', and 'Quota by printer cost center'.
- Enable quota for print:** A checked checkbox.
- Enable quota for copies:** An unchecked checkbox.
- Enable quota for digital sending:** An unchecked checkbox.

Quota Period Column:

- Quota Period:** A group of radio buttons. 'Monthly' is selected. Other options are 'Daily', 'Weekly', 'Bi-Weekly', and 'Quarterly'.
- Quota Auto Renew:** A checked checkbox.

User Section:

- User:** A section header.
- Default page limit:** An input field with the value '2000'.
- Default total warning flag:** An input field with the value '50'.
- Default color page limit:** An input field with the value '500'.
- Default color warning flag:** An input field with the value '50'.

Text Section:

- Text:** A section header.
- Warning total flag message:** A text area containing the message: 'Your job has been processed; the number of pages remaining is'.
- No more total pages message:** A text area containing the message: 'Your job has been deleted without printing; this job exceeds your ava'.
- Warning color flag message:** A text area containing the message: 'Your job has been processed; the number of color pages remaining i'.
- No more color pages message:** A text area containing the message: 'Your job has been deleted without printing; this job exceeds your ava'.

On this page, you can perform the following:

Quota mode

- Quota by user
- Quota by cost center
- Quota by user and cost center
- Quota by printer cost center
- Enable quota for print
- Enable quota for copies
- Enable quota for digital sending

User functions

- Set a **Default page limit** (the maximum number of total pages the user can print/copy/digitally send)
- Set a **Default total warning flag** (total number of pages before quota is reached)
- Set a **Default color page limit** (the maximum number of color pages the user can print/copy/ digitally send)
- Set a **Default color warning flag** (number of color pages before quota is reached)

Cost center functions

- Set a **Default page limit** (the maximum number of total pages the cost center can print/copy/ digitally send)
- Set a **Default total warning flag** (total number of pages before quota is reached)
- Set a **Default color page limit** (the maximum number of color pages the cost center can print/ copy/ digitally send)
- Set a **Default color warning flag** (number of color pages before quota is reached)

Printer cost center functions

- Set a **Default page limit** (the maximum number of total pages the cost center can print/copy/ digitally send)
- Set a **Default total warning flag** (total number of page before quota is reached)
- Set a **Default color page limit** (the maximum number of color pages the cost center can print/ copy/ digitally send)
- Set a **Default color warning flag** (number of color pages before quota is reached)

Text functions

- Create a custom **Warning total flag message** (message the user receives when they are approaching their quota for the total number of printed pages)
- Create a custom **No more total pages message** (message the user receives after their quota has been reached for the total number of printed pages)
- Create a custom **Warning color flag message** (message the user receives when they are approaching their quota for the number of printed color pages)
- Create a custom **No more color pages message** (message the user receives after their color page quota has been reached for the number of printed color pages)



NOTE: Users must have Messenger service enabled to receive quota messages. Messenger service is not available on Vista—quota will work, but the end-user will not be notified.

15.2 Quota user

The first time a user sends a job to a printer with a quota assigned, they are automatically added to the table using default values. In addition to providing basic information, the User page can also be used to alter quota settings on a case-by-case basis.

To access the User page, click **User** in the menu bar at the top of the Quota page.

Figure 15-3 Quota user

The screenshot shows the 'Quota' application window. At the top is a search bar labeled 'Search'. Below it is a menu bar with options: User, Cost center, Quota Printers, Assign quota printers to cost center, Defaults, Import Quota (CSV), and Assign cost centers to quota account. The main area contains a table with the following columns: User Name, Total print allowed, Total color print allowed, Total copies allowed, and Total color copies allowed. The table lists various user IDs and their corresponding quota values. At the bottom, there are additional fields for User Name, Total pages allowed, Total warning flag, Color pages allowed, Color warning flag, Total copies allowed, and Total color copies allowed.

User Name	Total print allowed	Total color print allowed	Total copies allowed	Total color copies allowed
00000	0/35/5	0/35/5	0/0	0/0
10003243	0/500/5	0/500/5	0/0	0/0
10003312	0/500/5	0/500/5	0/0	0/0
10010446	0/500/5	0/500/5	0/0	0/0
10063417	0/500/5	0/500/5	0/0	0/0
10064156	0/200/5	0/200/5	0/0	0/0
10080032	0/500/5	0/500/5	0/0	0/0
10081001	0/100/5	0/100/5	0/0	0/0
10081709	0/500/5	0/500/5	0/0	0/0
10081770	0/100/5	0/100/5	0/0	0/0
10081817	0/150/5	0/150/5	0/0	0/0
10081856	0/150/5	0/150/5	0/0	0/0
10081864	0/10000/5	0/10000/5	0/0	0/0
10081896	0/500/5	0/500/5	0/0	0/0
10081904	0/150/5	0/150/5	0/0	0/0
10081908	0/100/5	0/100/5	0/0	0/0
10081953	0/150/5	0/150/5	0/0	0/0
10081955	0/100/5	0/100/5	0/0	0/0
10081961	0/500/5	0/500/5	0/0	0/0
10081979	0/150/5	0/150/5	0/0	0/0
10081996	0/10000/5	0/10000/5	0/0	0/0
10082004	0/150/5	0/150/5	0/0	0/0
10082008	0/100/5	0/100/5	0/0	0/0
10082068	0/10000/5	0/10000/5	0/0	0/0
10082188	0/150/5	0/150/5	0/0	0/0

Fields provided:

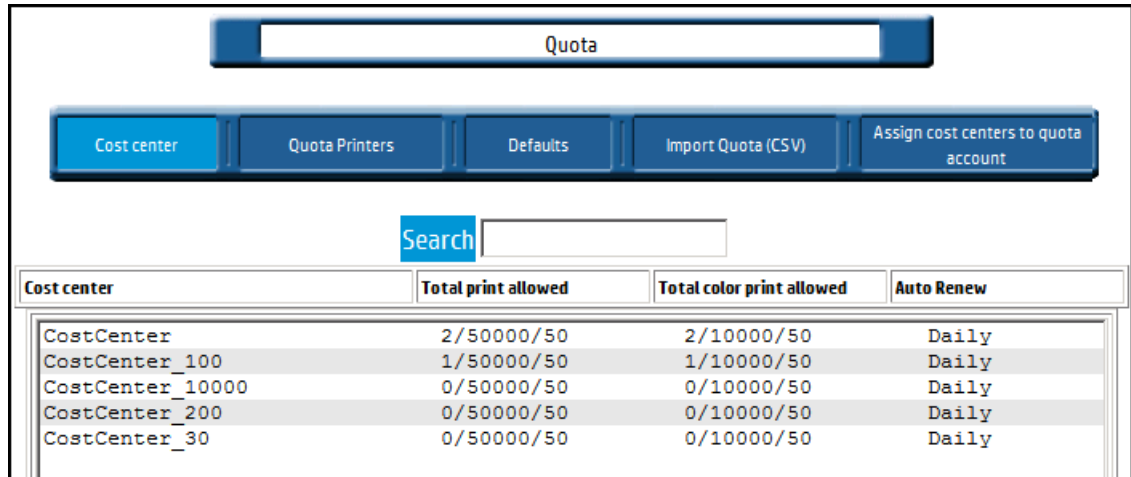
- Specific user names
- Total number of pages the user is allowed to print/copy/digitally send
- Total number of pages the user has printed/copied/digitally sent so far
- Total number of pages remaining for the user
- Total number of pages remaining before the user is notified with a warning that they are approaching their printing limit
- Number of color pages the user is allowed to print/copy/digitally send
- Number of color pages the user has printed/copied/digitally sent so far
- Number of color pages remaining for the user
- Number of color pages remaining before the user is notified with a warning that they are approaching their limit of available color pages

The selected user can be removed from the quota list by clicking **Delete**.

15.3 Quota cost center

To access the Quota Cost Center page, click **Cost Center** in the menu bar at the top of the Quota page.

Figure 15-4 Quota cost center



Cost center	Total print allowed	Total color print allowed	Auto Renew
CostCenter	2/50000/50	2/10000/50	Daily
CostCenter_100	1/50000/50	1/10000/50	Daily
CostCenter_10000	0/50000/50	0/10000/50	Daily
CostCenter_200	0/50000/50	0/10000/50	Daily
CostCenter_30	0/50000/50	0/10000/50	Daily

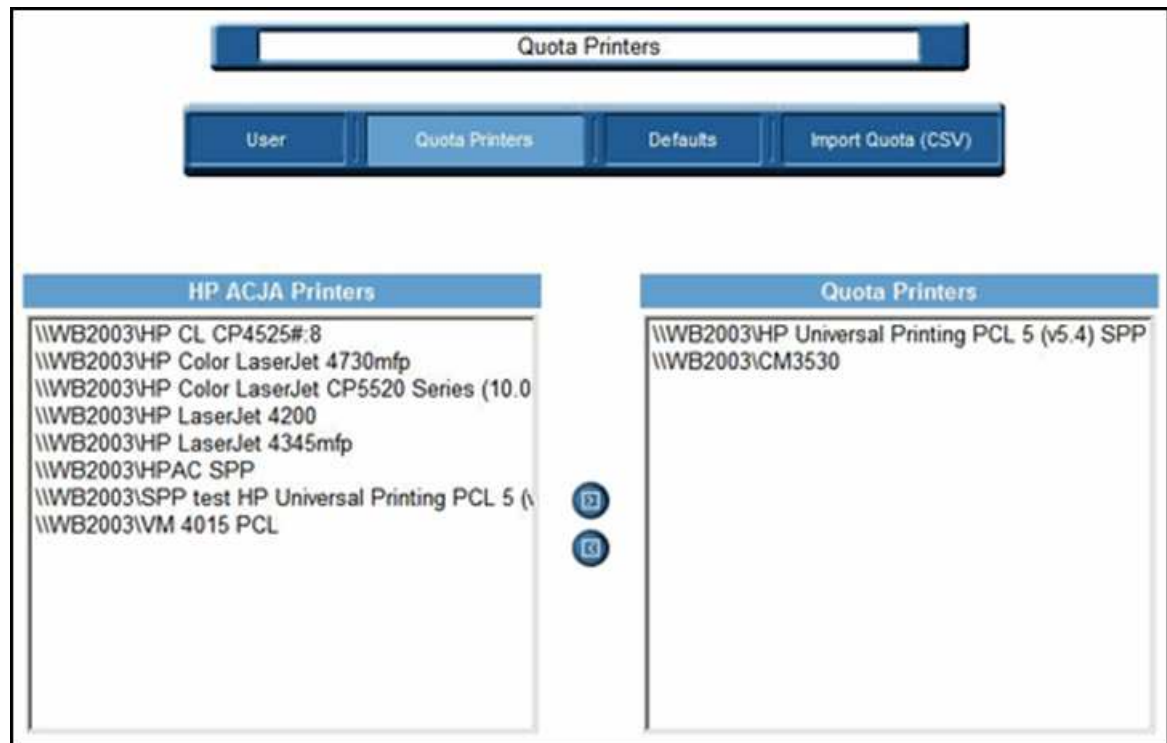
Fields provided:

- Specific Cost Center names
- Total number of pages the cost center is allowed to print/copy/digitally send
- Total number of pages the cost center has printed/copied/digitally sent so far
- Total number of pages remaining for the cost center
- Total number of pages remaining before the cost center is notified with a warning that they are approaching their printing limit
- Number of color pages the cost center is allowed to print/copy/digitally send
- Number of color pages the cost center has printed/copied/digitally sent so far
- Number of color pages remaining for the cost center
- Number of color pages remaining before the cost center is notified with a warning that they are approaching their limit of available color pages

15.4 Quota printers

To access this feature, click **Printers** in the menu bar at the top of the Quota page.

Figure 15-5 Quota printers



To designate an HP Access Control (HP AC) Job Accounting Printer as a Quota Printer, select the HP Access Control (HP AC) Job Accounting Printer in the left screen and click the Move right icon to move it to the right screen.

This is used only for printers with the HP Access Control (HP AC) Agent authentication solution, when Quota for copy/digital sending is enabled.

When quota control is done using HP Access Control (HP AC) Job Accounting Print Server, the quota printer is automatically added to the quota list when Quota is enabled and the web service has been configured properly.

To configure HP Access Control (HP AC) Agent for Quota, see the HP Access Control (HP AC) Agent Administrator Guide.

15.5 Assign quota printers to cost center

To access this feature, click **Assign quota printers to cost center** in the menu bar at the top of the Quota page.

Figure 15-6 Assign to cost center



To assign cost centers to a quota printer, select the quota printer in the left screen, select the cost centers in the right screen, and then click **Assign**.

 **NOTE:** This is used only when the mode **Quota by printer cost center** is selected.

In this mode, the user must be assigned to a cost center to be able to print. A printer can belong to multiple cost centers.

- If a user prints to a printer that belongs to the same cost center, the quota cost center will be used.
- If a user prints to a printer that does not belong to the same cost center, the default quota will be used.

Each cost center can have a different renewal period.

15.6 Import quota

To access this feature, click **Import Quota (CSV)** in the menu bar at the top of the Quota page.

Figure 15-7 Import quota

The screenshot shows a web interface for the 'Quota' module. At the top, there is a navigation bar with tabs: 'User', 'Quota Printers', 'Defaults', and 'Import Quota (CSV)'. Below this, there is a sub-navigation bar with 'Import Quota (CSV)' and 'View import log'. The main form is titled 'Import Quota (CSV)' and contains a 'Browse...' button for selecting a CSV file. Below the button is a checkbox labeled 'Use a csv with header'. There are five input fields: 'Cost center column' with a value of '0', 'User name column' with a value of '0', 'Total print allowed' with a value of '0', 'Total color print allowed' with a value of '0', and 'CSV separator' with a value of ','. At the bottom of the form is a blue button with a right-pointing arrow.

A CSV file containing the user name, cost center, quota values, and quota renewal can be imported into the database.

1. Browse to select the CSV file.
2. Assign the column number to the corresponding field.
3. If the CSV file does not contain the information, leave **0** as the value. Auto-renew values are:
 - 0: disabled
 - 1: Daily
 - 2: Weekly
 - 3: Monthly
 - 4: Quarterly
 - 5: Bi-weekly
4. Select the separator in the CSV file (the default is a comma).
5. Click **Import file** to import the CSV file.

6. Click **View Import log** to see a log of the import process.
7. Click the **Delete** icon to delete the log.

15.7 Assign cost centers to quota account

To access this feature, click **Assign cost centers to quota account** in the menu bar at the top of the Quota page.

In the administration/account menu, you can create a **Quota super user** account.

Figure 15-8 Create an account

To assign cost centers to a Quota support user, select **Quota super user** in the left screen, select the cost centers in the right screen, and then click the **Assign** icon.

Figure 15-9 Assign cost center

When the quota user logs on to the application, they have the same rights as a regular HP Access Control (HP AC) Job Accounting user. The quota user also has access to the quota menu and can manage cost center quotas and the users belonging to these cost centers.

Figure 15-10 Manage cost center quotas

Quota

User

Cost center

Search

Cost center	Total print allowed	Total color print allowed	Total copies allowed	Total color copies allowed	Auto Renew
prnDiana_200	0/100/5	0/100/5	0/0	0/0	Daily
prnDiana1_10000	0/35/5	0/35/5	0/0	0/0	Weekly

Cost center

Total pages allowed

Total warning flag

Color pages allowed

Color warning flag

Total copies allowed

Total color copies allowed

Auto Renew

prnDiana_200

200

5

200

5

0

0

Daily

15.8 Configure quota for printing using print server

To configure quota for printing on a device using the print server, complete the following steps:

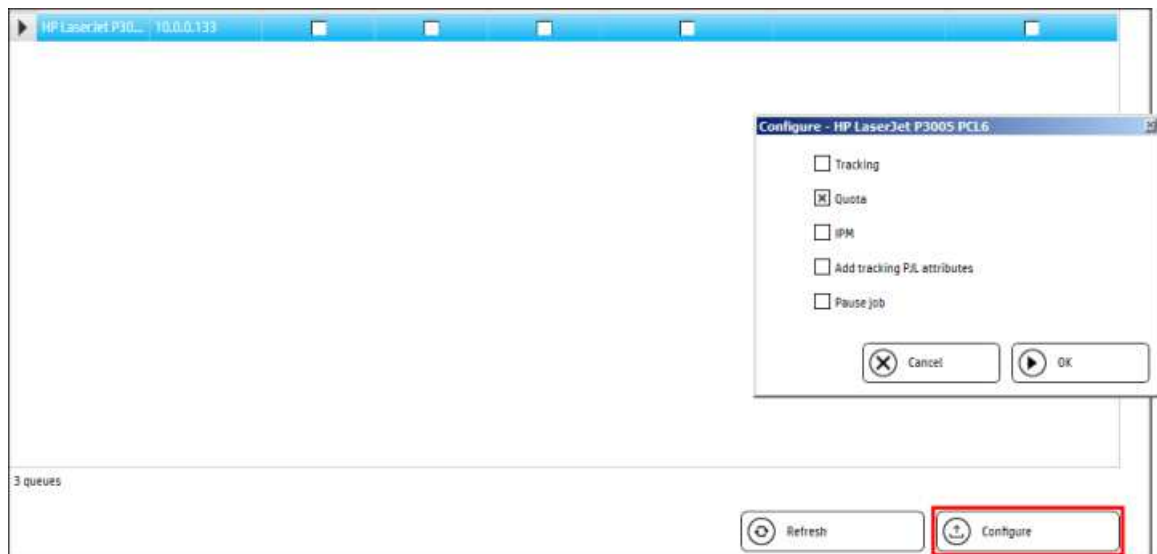
1. Enable quota for print in HP Access Control (HP AC) Job Accounting.
 - a. In the HP Access Control (HP AC) Job Accounting Quota module, go to the **Defaults** page.
 - b. Click **Enable quota for print** checkbox.

Figure 15-11 Enable quota for print

The screenshot shows a web application interface for configuring quotas. On the left is a vertical navigation menu with options: Home, New Query, External report, Queries in progress, Page cost management, Cost center, User options, Print organization, Quota (highlighted), Allocation, Summary report, Administration, External report management, Help, and End of session. The main content area is titled 'Quota' and has four tabs: User, Quota Printers, Defaults, and Import Quota (CSV). The 'Quota Printers' tab is active. It contains two sections: 'Mode' and 'Quota Period'. The 'Mode' section has radio buttons for 'Quota by user' (selected), 'Quota by cost center', 'Quota by user and cost center', and 'Quota by printer cost center'. Below these are checkboxes for 'Enable quota for print' (checked), 'Enable quota for copies', and 'Enable quota for digital sending'. The 'Quota Period' section has radio buttons for 'Daily', 'Weekly', 'Bi-Weekly', 'Monthly' (selected), and 'Quarterly', along with a checked checkbox for 'Quota Auto Renew'. At the bottom, there is a 'User' section with four input fields: 'Default page limit' (2000), 'Default total warning flag' (50), 'Default color page limit' (500), and 'Default color warning flag' (50).

2. Go to the Print server tile, select a device, then click **Configure**. In the Configure window, select **Tracking** and **Quota**. Click **OK**.

Figure 15-12 Print server quota



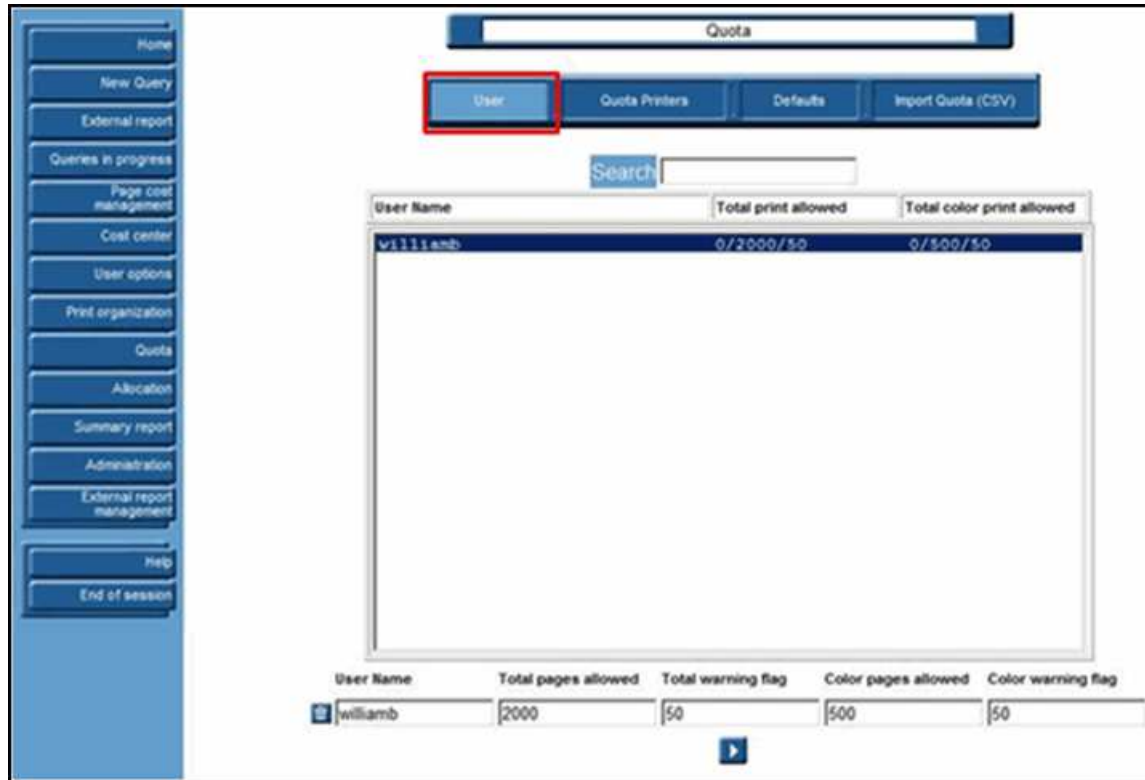
15.9 Adding new users to the quota control

The following sections include methods to add users to the quota control.

15.9.1 First print

A user is added to the quota control after the user sends his or her first print job to a device configured with quota. To view the user's name in the Quota User list, go to the HP Access Control (HP AC) Job Accounting Quota module and then click **User**.

Figure 15-13 User button

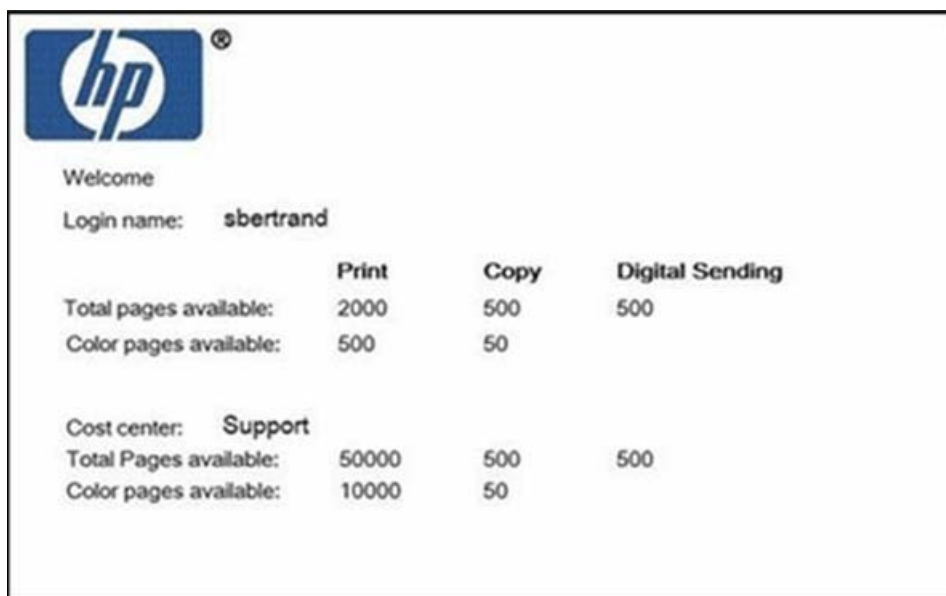


15.9.2 First access to the MyQuota

A user is added to the quota control after the user sends his or her first print job to a device configured with quota. To view the user's name in the Quota User list, go to the HP Access Control (HP AC) Job Accounting Quota module and then click User.

1. Open a Web browser and enter the following in the address bar:
`http://<servername>/myquota`
2. Where <servername> is the name of the server that has the HP Access Control (HP AC) Job Accounting quota web service installed.

Figure 15-14 Welcome screen



15.9.3 First install of Quota Client

A user is added to the quota control after the Quota Client is first installed on the user's desktop. You can install the Quota Client on the end-user desktop by running the "HP AC Job Accounting QuotaClient.msi" file from the following folder:

C:\Program Files\Hewlett-Packard\HP AC\client setup

Installation requires knowledge of the server name where the HP Access Control (HP AC) Job Accounting quota web service is installed.

The quota client will display a printer icon on the tray bar of the desktop that shows the quota limit for the user that is logged into the desktop.

15.9.4 Import quota

You can also manually import users for quota control. Follow the steps below to import users.

1. Go to the HP Access Control (HP AC) Job Accounting Quota module.

2. Click **Import Quota (CSV)**

Figure 15-15 Import Quota

The screenshot shows the HP Access Control (HP AC) Configuration Utility interface. On the left is a sidebar with menu items: Home, New Query, External report, Queries in progress, Page cost management, Cost center, User options, Print organization, Quota, Allocation, Summary report, Administration, External report management, Help, and End of session. The main window has a title bar 'Quota' and a navigation bar with 'User', 'Quota Printers', 'Defaults', and 'Import Quota (CSV)'. Below the navigation bar, the 'Import Quota (CSV)' button is highlighted with a red box. To its right is a 'View import log' button. Below these buttons is the 'Import Quota (CSV)' form, which includes a 'Browse...' button, a checkbox for 'Use a csv with header', and input fields for 'Cost center column' (0), 'User name column' (0), 'Total print allowed' (0), 'Total color print allowed' (0), and 'CSV separator' (.). A blue play button is at the bottom right of the form.

3. Click the **Browse** button to browse for and select the CSV file.
4. Click the **Use a csv with header** checkbox to accurately import a CSV file with a header.
5. Enter the correct values in the following fields to determine the correct locations of information in the CSV file: Cost center column, User name column, Total print allowed, Total color print allowed, CSV separator.
6. Click the **Import file** button to import the CSV file.

15.10 End user notification

Three options are available to notify the end user of their quota status:

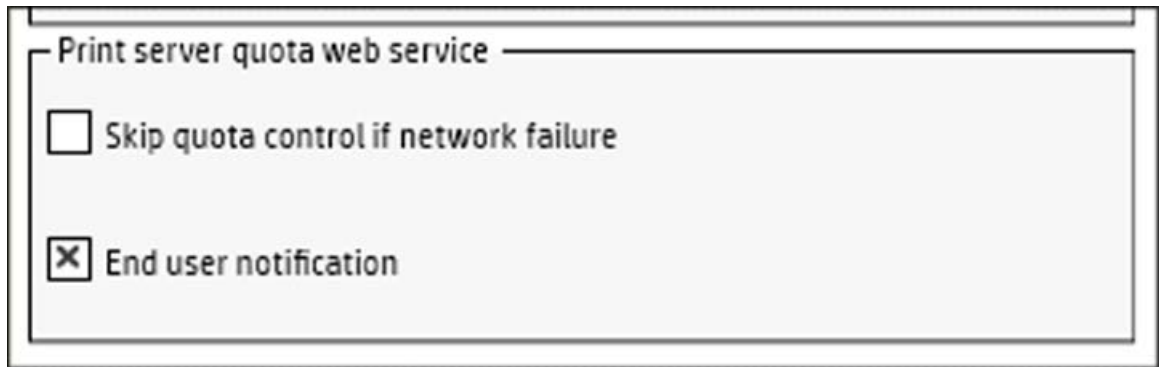
- Messenger Service
- Quota client
- MyQuota website

15.10.1 Messenger Service

 **NOTE:** Messenger Service is available for Windows Server 2003 and Windows XP only.

You can enable the quota Messenger Service from the HP Access Control (HP AC) Configuration Utility. Go to the **Settings** tile > **Print server** tab. Check the **End-user notification** checkbox. This requires that the messenger service is running on the end-user desktop.

Figure 15-16 Quota notification



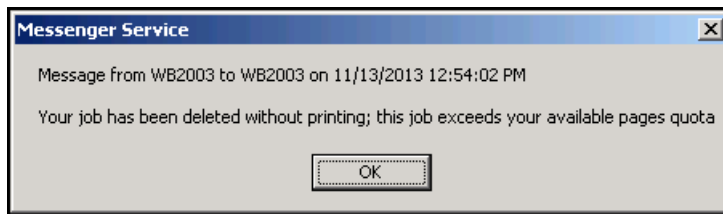
Print server quota web service

☐ Skip quota control if network failure

☒ End user notification

The pop-up will appear on the end-user desktop when the warning page limit has been reached and when the actual page limit has been reached.

Figure 15-17 Messenger notification



The quota limits and notification messages can be configured from the HP Access Control (HP AC) Job Accounting tab. Click the Quota module and then click **Defaults**. In the Text section at the bottom of the page, edit the text fields to change the messages displayed.

16 Quota Client

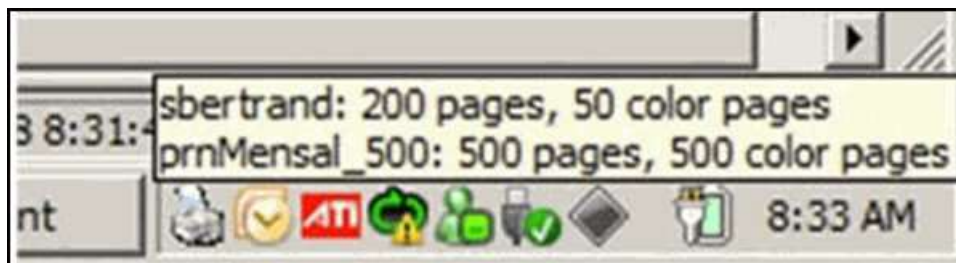
You can install the Quota Client on the end-user desktop by running the “HP AC JOB ACCOUNTING QuotaClient.msi” file from the following folder:

C:\Program Files\Hewlett-Packard\HP AC\client setup

Installation requires knowledge of the server name where the HP Access Control (HP AC) Job Accounting quota web service is installed.

The quota client will display a printer icon on the tray bar of the desktop that shows the quota limit for the user that is logged into the desktop.

Figure 16-1 User quota limit



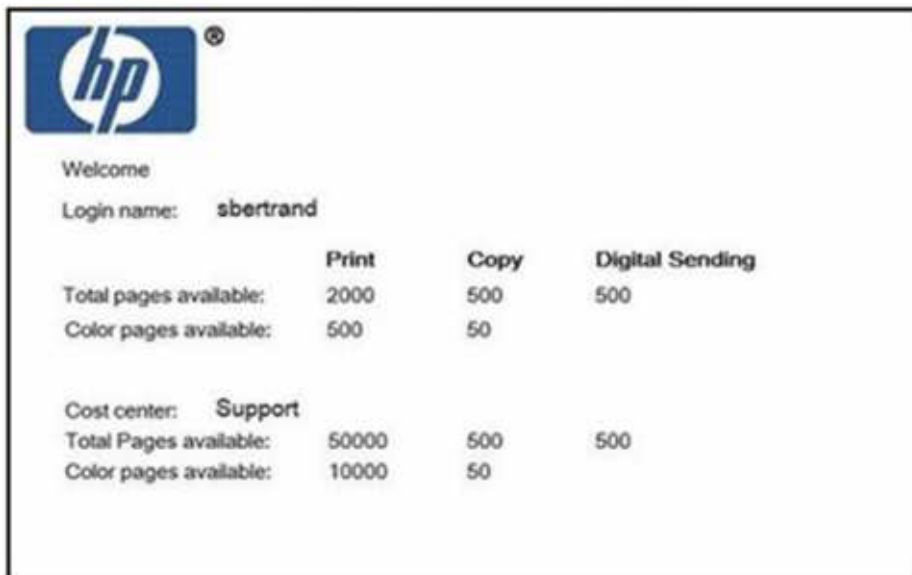
17 MyQuota website

End-users can access the MyQuota website to view their login's quota status. Open a Web browser and type the following in the address bar:

`http://<servername>/myquota`

Where <servername> is the name of the server that has the HP Access Control (HP AC) Job Accounting quota web service installed.

Figure 17-1 MyQuota web interface



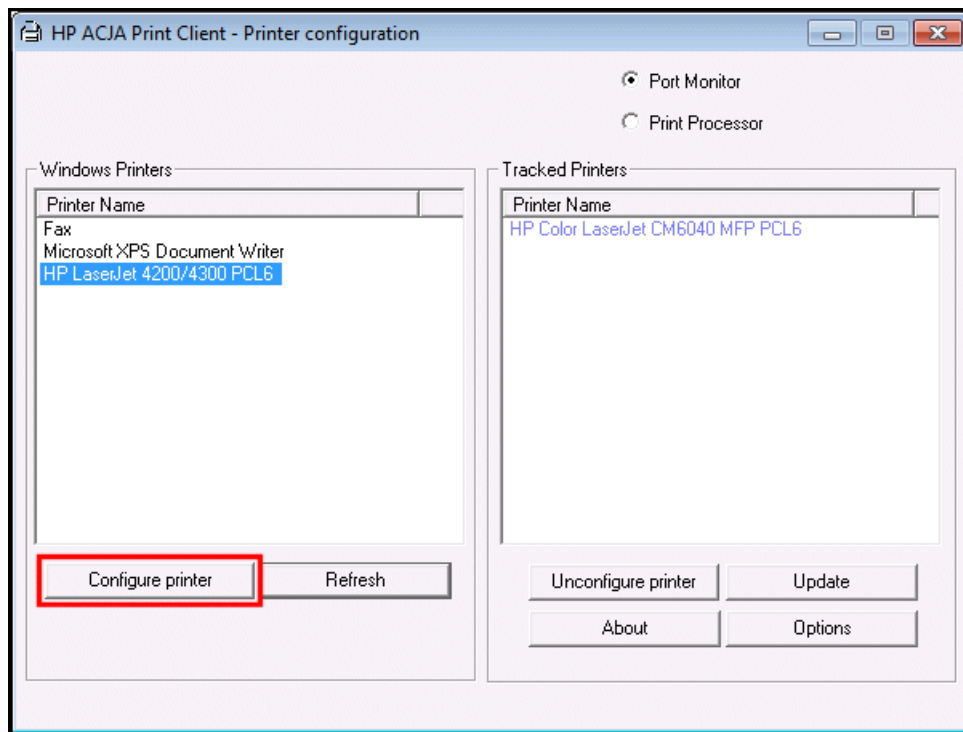
18 Job Accounting Print Client

To track local printers connected to client desktops via USB, LPT1 or Standard TCP/IP port, install the Job Accounting Print Client. The Job Accounting Print Client is installed on client desktops where local print activity is tracked and then sent to the Job Accounting Database Server.

1. Copy the HP Access Control (HP AC) Job Accounting Print Client application from the server (located in the C:\Program Files\Hewlett-Packard\HP Access Control\client setup folder) to the client desktop.
2. Run the HP Access Control (HP AC) Job Accounting Print Client application on the client desktop and follow the on-screen instructions.
3. On the Setup Type screen, select one of the following configuration modes:
 - **Automatic using print processor** configures all printers connected via USB.
 - **Automatic using port monitor** configures all printers connected via Local Port or Standard TCP/IP Port.
 - **Manual configuration** requires you to manually configure printers with Printer Configuration tool.Click **Next**.
4. On the Select Features screen, select **Track Novell** if you want to use the Novell protocol. Click **Next**.
5. Select **HTTP** or **FTP** as the desired transfer protocol to upload print tracking data to the Job Accounting Database Server. Click **Next**.
6. In the Server field, type the name or IP address of the Job Accounting server. Click **Next**. Click **Finish**.

If you selected **Manual configuration** during the HP Access Control (HP AC) Job Accounting Print Client installation, go to **Start > All Programs > HP Access Control Job Accounting**, then click **Printer Configuration**. In the Printer Configuration application, select installed printers from the Windows Printers list, then click **Configure printer**.

Figure 18-1 Job Accounting client — Printer configuration



Configured printers display in the **Tracked Printers** list on the right.

19 External reports

Select **External report management** on the Remote Control to set up the HP Access Control (HP AC) Job Accounting report server for external reporting functions. Use External Reporting to create and distribute reports with the following useful features:

- Schedule off-line execution of reports to minimize processing time.
- Maintain a history of executed reports (useful when existing data is changed frequently).



NOTE: A working knowledge of SQL Reporting Services is required to use the **External Reporting** functions.

19.1 Report activities

The **External Reporting** process is comprised of three activities:

Report Authoring

The process of defining the report parameters, properties, style, and user interactivity.

Report Management

The administration of the published report.

Report Delivery

Delivering reports to end-users.

The actions required to set up the report server in HP Access Control (HP AC) Job Accounting are:

1. Set up and validate **Source**, **Model**, and **Report** folders.
2. Create and validate a data source.
3. Upload a model.
4. Assign a data source to the model and validate.
5. Upload a report.
6. Assign a model to the report and validate.



NOTE: The actions above must be performed in the listed sequence to correctly configure the report server.

19.2 External report management

Four management functions are available on the **External report management** screen:

- Manage folders
- Manage data sources

- Manage models
- Manage reports

Figure 19-1 External report management

19.3 Manage folders

The fields for the **Data source folder**, **Model folder**, and **Report folder** must contain a name. Default names are provided during installation (Source, Model, Report). Type an alternative name, if desired, in any field and click the Go ► icon to save the change.

Figure 19-2 Manage folders button

19.4 Manage data sources

Use the **Manage data sources** screen to add or delete report data sources.

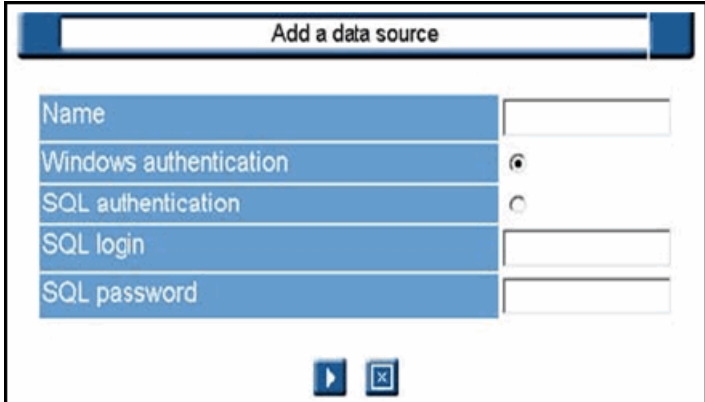
Figure 19-3 Manage data sources

- To add a data source, click **Add a data source** button.
- To delete a data source, click the selection box and then click the Delete  icon.
- To return to the **External report management** screen, click the Back  icon.

19.5 Add a data source

Use the **Add a data source** page to create, view, and modify a shared data source item. A shared data source defines a connection to an external data source. With a shared data source, you can create and maintain the settings for the data source connection separately from the reports that use the data source.

Figure 19-4 Add a data source



The screenshot shows a dialog box titled "Add a data source". It contains the following fields and controls:

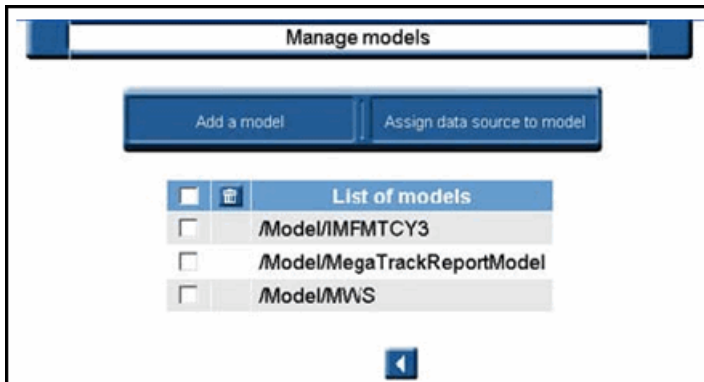
- Name:** A text input field.
- Authentication:** Two radio buttons. "Windows authentication" is selected, and "SQL authentication" is unselected.
- SQL login:** A text input field, visible only when SQL authentication is selected.
- SQL password:** A text input field, visible only when SQL authentication is selected.
- Buttons:** At the bottom, there are two buttons: "Go" (represented by a right-pointing arrow icon) and "Cancel" (represented by a close icon).

- Enter **Name** for the shared data source, which is used to identify the item within the report server namespace.
 - Select **Windows Authentication** if the credentials that the user provides are Windows Authentication credentials.
 - Select **SQL Authentication** if you are using SQL Server Authentication.
1. Enter **SQL Login** information for SQL Server Authentication.
 2. Enter **SQL Password** information for SQL Server Authentication.
 3. Click the Go  icon to proceed, or the Cancel  icon to quit.

19.6 Manage models

Use the **Manage models** page to manage report models in the database.

Figure 19-5 Manage models page

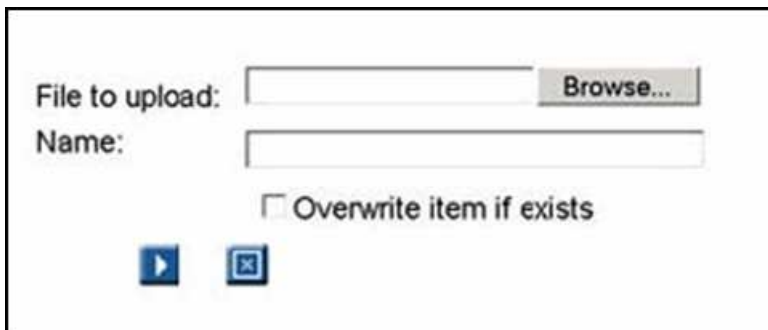


1. Click **Add a model** to upload a .smdl model file.
2. Select a model from the list displayed in the table and click **Assign data source to model**.

19.6.1 Add a model

Use the **Add a model** screen to upload a .smdl model file in the application.

Figure 19-6 Add a model



1. Enter the name of the .smdl file to upload, or click **Browse** to locate the file.
2. Click **Overwrite item if exists** if the uploaded file will replace an existing file.
3. Click the Go  icon to validate the selection, or the Cancel  icon to quit.

19.6.2 Delete a model

To delete a model, click the selection box and then click the Delete  icon.

19.6.3 Assign data source to model

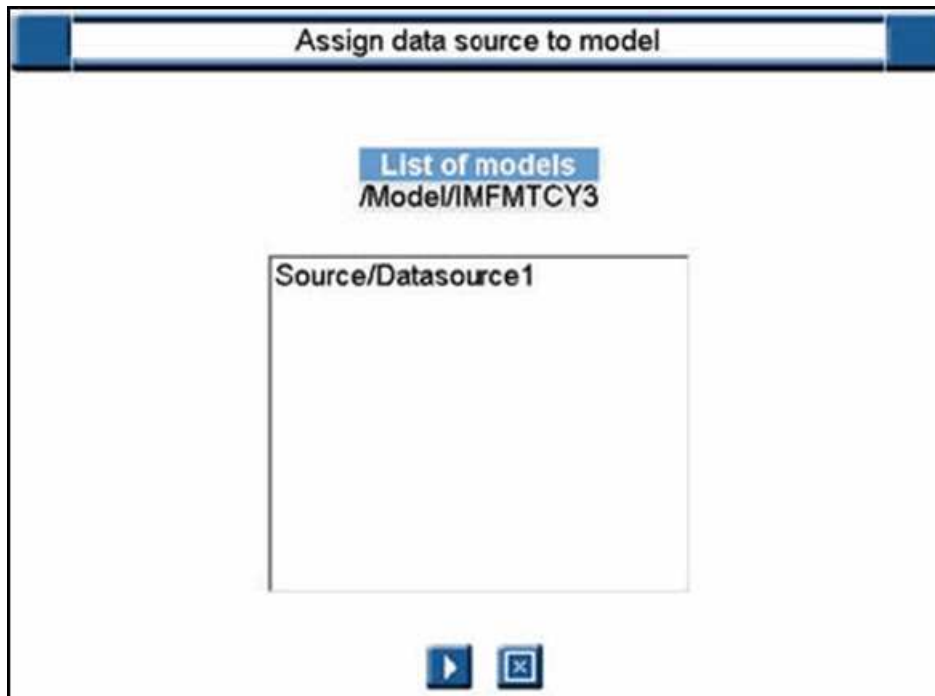
If a model is displayed in red on the **Manage Model** screen, it is not yet linked to a data source.

Use the following steps to assign a data source:

1. Select the model from the list on the **Manage Model** screen.

2. Click **Assign data source to model**.

Figure 19-7 Assign data source to model

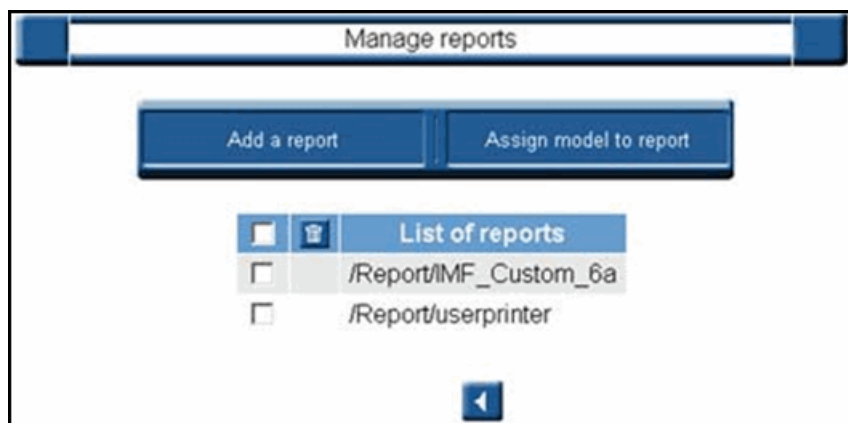


3. Select the data source.
4. Click the Go  icon to proceed, or the Cancel  icon to quit.

19.7 Manage reports

The table on the **Manage reports** page displays a list of custom reports available in the database.

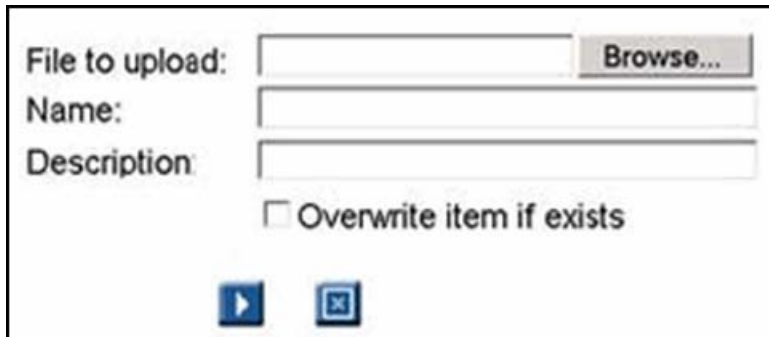
Figure 19-8 Manage reports page



19.7.1 Add a report

Use the **Add a report** page to upload a .rdl file from the report server database.

Figure 19-9 Add a report



1. Enter the name of the .rdl file to upload, or click **Browse** to locate the file.
2. Enter name of the file as it will appear in the report server namespace. This field is automatically filled when a file is selected with the Browse function.
3. Enter report Description.
4. Select the **Overwrite item if exists** check box if you want to replace an existing item with a newer version. To overwrite an existing version, the name of the new item and the existing item must be an exact match.



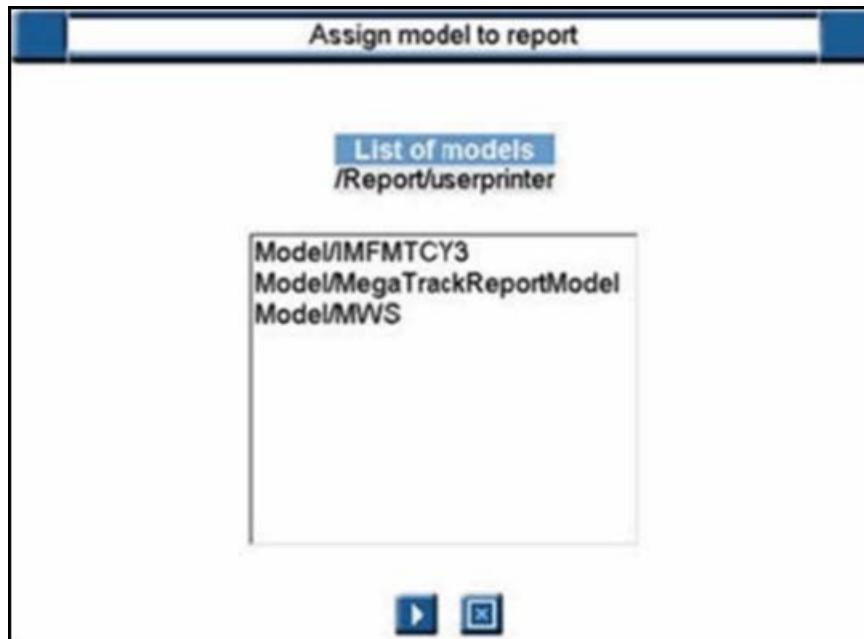
TIP: Only reports and models are published during a file upload. All other file types are stored as resources. The folder from which you initiate the upload operation is the folder that will contain the uploaded file.

5. Click the Go  icon to proceed, or the Cancel  icon to quit.

19.7.2 Assign model to report

Use the **Assign model to report** page to assign a model from the database to a report.

Figure 19-10 Add model to report

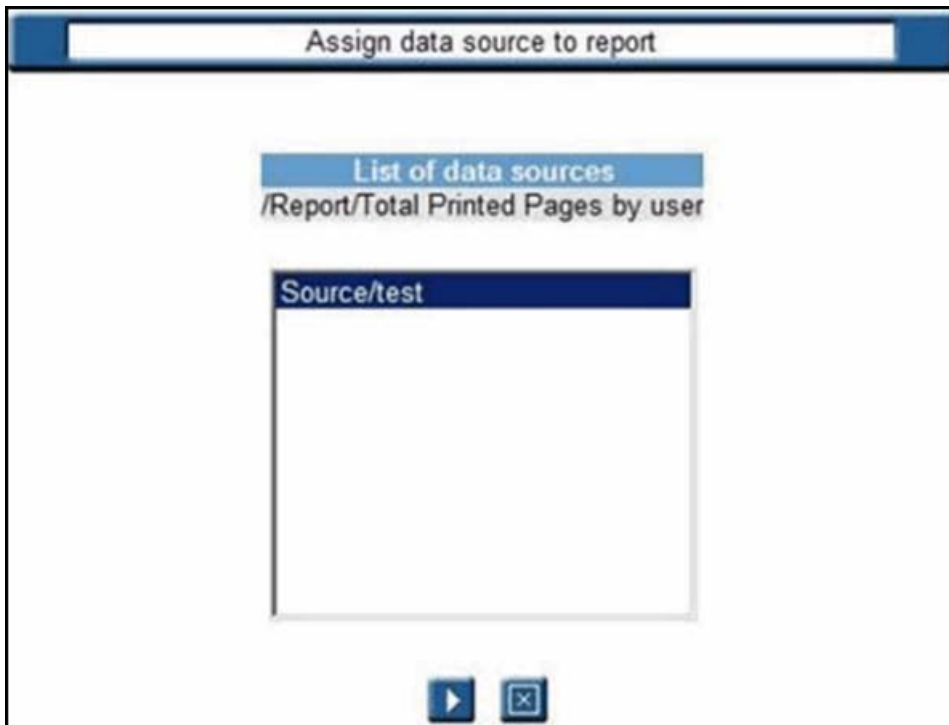


1. On the **Manage report** page, select a report from the list displayed in the table and click **Assign model to report** to assign a report model to an existing report.
2. Select a model from the list displayed.
3. Click the Go  icon to proceed, or the Cancel  icon to quit.

19.7.3 Assign data source to report

Use the **Assign data source to report** page to assign a data source to a report.

Figure 19-11 Assign data source to report page



1. On the **Manage reports** page, select a report from the list displayed in the table and click **Assign data source to report** to assign a data source to an existing report.
2. Select a data source from the list displayed.
3. Click the Go  icon to proceed, or the Cancel  icon to quit.

19.7.4 Delete a report

To delete a report, click the selection box next to the report and then click the Delete  icon.

19.8 Launch external report

Select **External report** button on the Customize report page of the Remote Control to set parameters for your report.

Figure 19-12 External report button



1. Select the report you want to customize.
2. Click **Parameterized mode** to customize the selected report.
3. Use the **Parameterized query** page to set parameters for the report. For more detailed information about customizing and launching the query, see the Parameterize queries section of this guide

Figure 19-13 Parameterized query

A screenshot of a web application window titled 'List of devices'. At the top, there are three buttons: 'Query', 'Schedule', and 'Go'. Below these buttons, the form contains several fields: a 'Name' field with 'Printers_3' entered; a 'Recipient e-mail address' field with a small icon to its right; a 'Print server' dropdown menu currently showing 'All print servers'; radio buttons for 'Date' (selected) and 'Time lapse'; and two date/time pickers. The first picker is labeled 'Printing date from ... (Today)' and shows 'January 01 2000'. The second picker is labeled 'To ... (Today)' and shows 'December 31 2020'. Both pickers have sub-fields for hours (hh), minutes (mm), and seconds (ss).

Glossary

Administrator

The person responsible for maintaining a computer network.

ADSI

Active Directory Service Interface. Under the Windows platform, enable system administrators to easily query for and manipulate directory service objects, regardless of which network environment contains the resource.

allocation

A function of HP Access Control (HP AC) Job Accounting that allows information to be linked to print jobs.

architecture

The broad design of either hardware or software that defines the structure, capabilities, and limitations of the system.

case-sensitive

The ability of an operating system to distinguish between upper- and lower-case letters. For example, “A” would be considered a completely different character than “a.” This is important to know when creating or entering a system password.

client

An application that runs on a computer and relies on a server to perform some specific operation.

cluster

A designated collection of print servers (up to eight) that provide fault tolerance in a network. If the primary device in a cluster fails, another will automatically take its place in order to prevent a disruption in service.

cookies

A small amount of data passed through a web browser from a web server and stored on the user’s computer as a text file. Cookies are useful for informing the web server if the user has visited a site before, and allows for a more customized data presentation.

data

Pieces of information formatted in a precise manner. Data is what computer programs produce and manipulate.

database

Essentially an electronic filing system, databases are a collection of information stored in a specific manner that enables computer systems to quickly and easily retrieve them.

domains

A group of computer and peripheral devices bound by common rules within a network environment.

driver

A computer program that enables a computer to communicate with a peripheral device such as a printer, scanner, or network card.

duplex

When referring to printers, duplex is the ability of some printers to print on both sides of a sheet of paper automatically.

exchange rate

A formula used to convert one nation’s currency to another. Due to the ever-fluctuating world market, this rate can change from day to day.

fixed address

Also sometimes referred to as a “static” address, fixed addresses do not change on their own after being assigned to a computer or device. This differs from “dynamic” where addresses can automatically change as needed.

groups

Within a computer network, a collection of computers and devices as defined by an administrator.

HP ACJOB ACCOUNTING DS

HP Access Control (HP AC) Job Accounting Database Server. The component of HP Access Control (HP AC) Job Accounting that collects and stores all information regarding printing.

HP ACJOB ACCOUNTING IPA

HP Access Control (HP AC) Job Accounting In Printer Agent. A module used to track device usage with an agent embedded in the device. The HP ACJOB ACCOUNTING IPA Configuration Application can be used to discover and configure the agents.

HP ACJOB ACCOUNTING PRINT SYSTEM

HP Access Control (HP AC) Job Accounting Print System. The core feature of HP Access Control (HP AC) Job Accounting that consists of the HP Access Control (HP AC) Job Accounting Database Server, the HP Access Control (HP AC) Job Accounting Web Server, and the HP Access Control (HP AC) Job Accounting Print Server.

HP ACJOB ACCOUNTING WS

HP Access Control (HP AC) Job Accounting Web Server. The component within the HP Access Control (HP AC) Job Accounting Print System that queries the database and retrieves information as needed.

Intranet

An internal network accessible only to those within a particular organization, such as a company or corporation.

IP address

A 32-bit numeric address that identifies each device connected to a computer network. Every device connected to the network must have a unique IP address in order to function.

Job AccountingvaScript

A scripting language that enables web programmers to enhance the features and function of their websites.

lists

A collection of specific types of data used by HP Access Control (HP AC) Job Accounting.

MFP

Multi-Function Peripheral. A printer that serves more than a single function. In addition to printing, a multi-function peripheral might also work as a copier, fax machine, or scanner.

node

Any device on a computer network with a unique network address. This term applies to both computers and printers.

parameter

A characteristic or argument imposed on a program by a user.

plotter

An electro-mechanical device that produces drawings based on a computer's instructions. Unlike printers, plotters use pens to draw large-scale images such as schematics and blueprints.

port

An interface on a computer through which peripheral devices connect.

print server

A computer on a network that manages one or more printers connected to the network. Any user connected to a network can print by sending their job to the print server.

printer template

A feature of HP Access Control (HP AC) Job Accounting that allows you to define the associated costs and prices associated with a particular model of printer and then apply those same settings to any printer recognized by the HP Access Control (HP AC) Job Accounting print server. This not only saves time but also allows for quick and easy updates from a single, centralized interface.

query

Any request by a user for information stored in the HP Access Control (HP AC) Job Accounting Database server (HP ACJOB ACCOUNTING DS).

query themes

A collection of query items as defined by a user. Themes allow complex queries to be quickly and easily requested.

server

General term for a computer or a device that manages resources on a network.

SMTP

Simple Mail Transfer Protocol. A standardized method of sending email messages from one server to another.

spool

Simultaneous Peripheral Operations On-Line. This is the process of storing print data in a special area of memory. This allows the printer to operate at its own speed while freeing up the computer to perform other functions.

static address

Also sometimes referred to as a “fixed” address, static addresses do not change on their own after being assigned to a computer or device. This differs from “dynamic” where addresses can automatically change as needed.

user

General term for someone operating a computer.