



# Pcounter CGI Utilities Installation and Configuration

*For Pcounter for Windows version 2.55 and above*

## About this document

The core Pcounter application contains a number of CGI extension applications which can be configured using IIS. This document details the installation and configuration of these applications. These applications are:

- **Webclient.exe** for web release of print jobs
- **Account.exe** for web balance transactions
- **Balance.exe** for online checking of a user's Pcounter balance
- **PcounterReporting.exe** for online reports

All of the discussed executable files are stored in (default location) C:\Program Files\Pcounter for NT\NT

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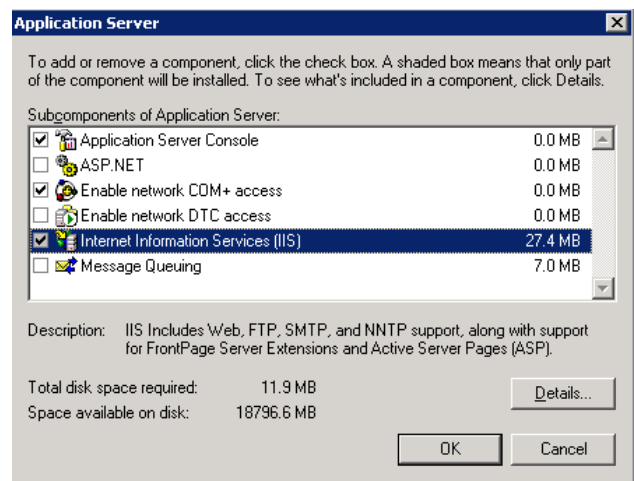
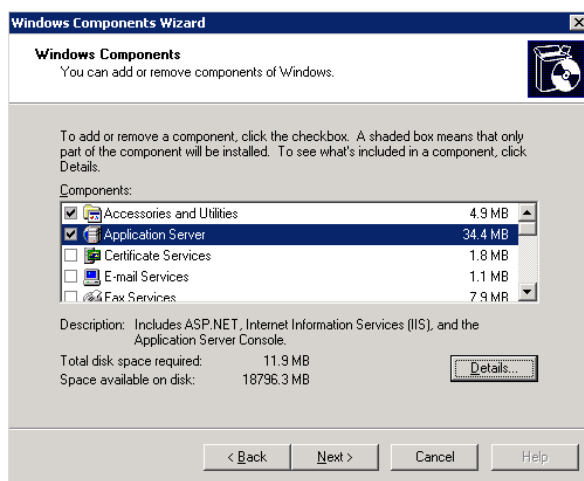
## 1. IIS Installation and Configuration

Microsoft Internet Information Services must be installed and configured on the Pcounter Data server.

### 1.1 IIS6 / WINDOWS SERVER 2003 INSTALLATION AND SETUP

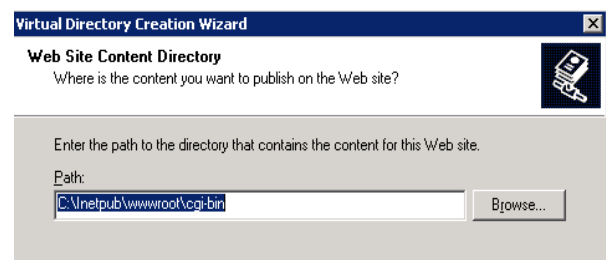
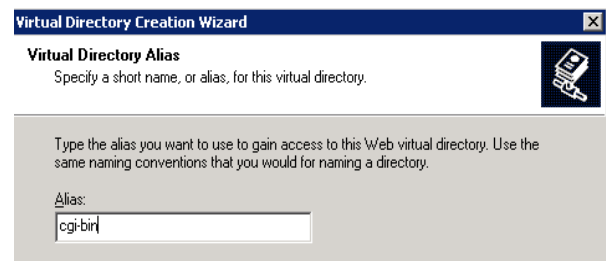
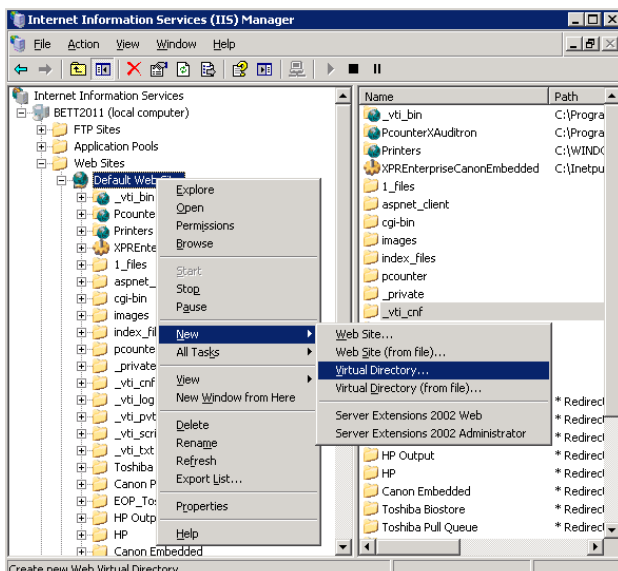
IIS6 is included with Windows Server 2003. If IIS is not installed on your Pcounter server it can be installed through **Control Panel > Add/Remove Programs > Add/Remove Windows Components**.

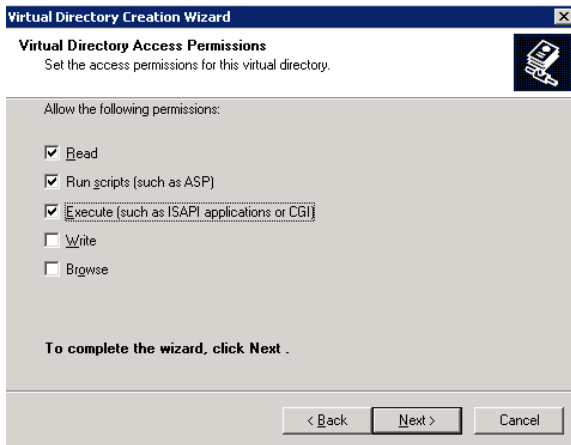
Select **Application Server > Details**. Check **Internet Information Services** and click **OK** followed by **Next** on the previous window. IIS components will now install. **Please note**: a server reboot may be necessary once installation is complete.



Once complete, create a new directory named `cgi-bin` within the IIS directory `C:\inetpub\wwwroot`.

Open **IIS Manager** (under **Administrative Tools**). Using the directory structure in the left-hand frame browse to `[ServerName]\Web Sites\Default Web Site`. Right-click **Default Website** and select **New > Virtual Directory**. When prompted for an **Alias** enter `cgi-bin` and click **Next**. Enter or browse to the path `C:\inetpub\wwwroot\cgi-bin` when prompted and click **Next**.

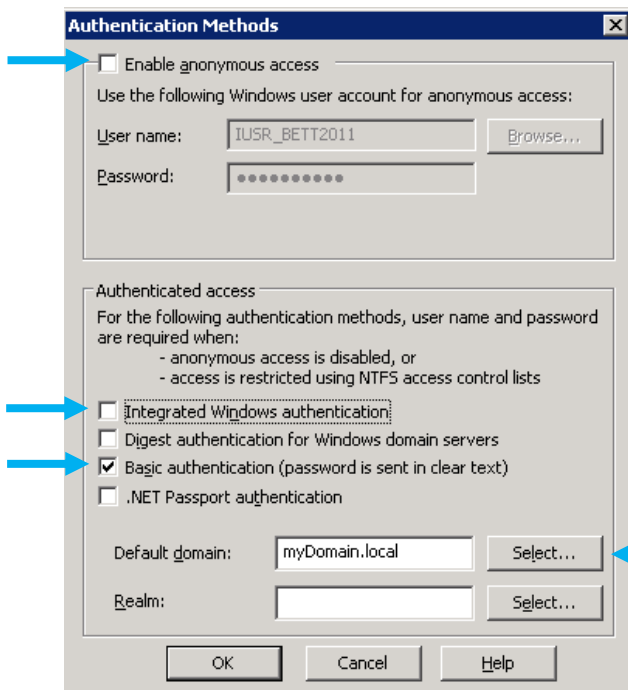




Set the **Virtual Directory Access Permissions to Read, Run scripts and Execute** and click **Next** to finish the wizard.

Copy the relevant exe file from C:\Program Files\Pcounter for NT\NT into the ~\cgi-bin directory and refresh IIS Manager. The file will appear in the virtual directory you have just created. Right-click the file and select **Properties**.

Click the **File** tab followed by the **Edit** button under **Authentication and Access Control**.



Uncheck the option for **Enable anonymous access**.

Ensure the **Basic authentication** and **Integrated Windows authentication** options are selected from the list of authentication methods. Click **Yes** when advised of the security implications.

Type in, or hit **Select** and browse to, the name of your domain.

Click **OK** then **OK** and restart the default website by selecting it from the directory structure and hitting **Stop** then **Play** on the IIS toolbar.

Now see the relevant section for the CGI app you wish to use section 2 for the **Universal Configuration Options**.

## 1.2 IIS7 / WINDOWS SERVER 2008 INSTALLATION AND SETUP

On Windows Server 2008 IIS is added as a Server Role through Server Manager. To install this, open the Server Manager and Add the Role **Web Services (IIS)**. Ensure that the default services are installed as well as the following:

- Security > Basic Authentication
- Security > Windows Authentication
- IIS 6 Management Compatibility > [ALL]
- Application Development > CGI

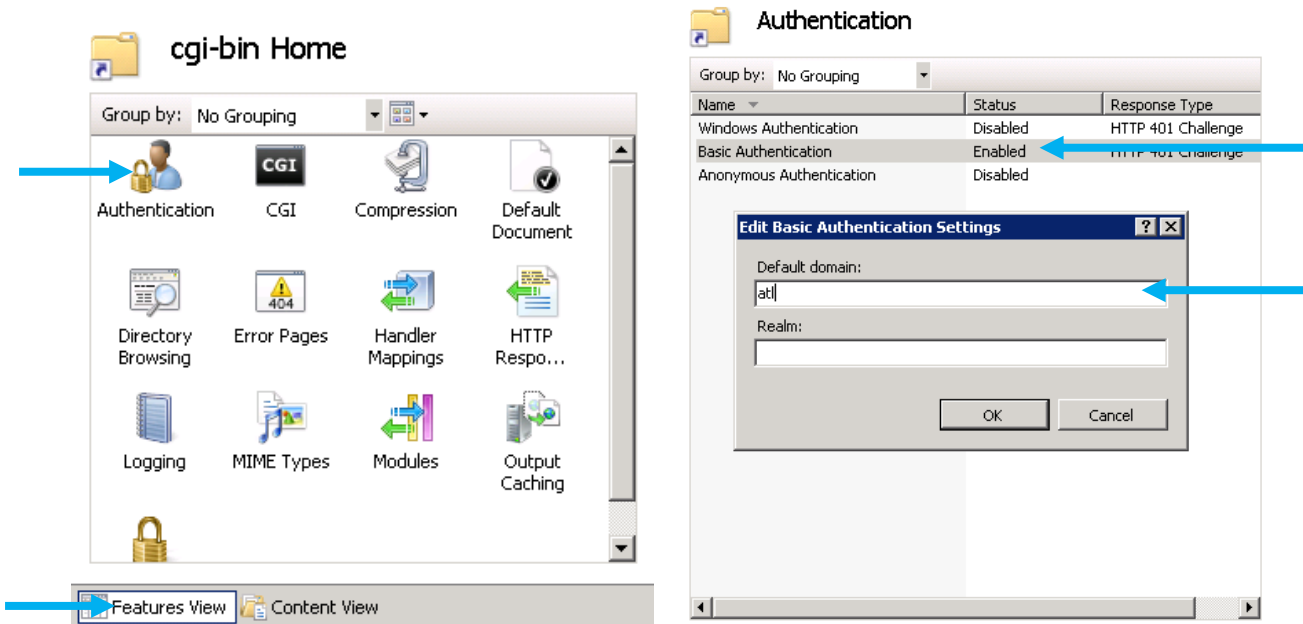
A reboot of the server may be necessary after this.

Once IIS is installed, create the folder **cgi-bin** in the IIS directory **C:\inetpub\wwwroot\**.

Open IIS Manager from Administrative Tools and browse to **[server name]\Sites\Default Website**. Right-click Default Website and **Add a Virtual**

**Directory.** Set the **Alias** to **cgi-bin** and for the **Physical Path** browse to the folder ~\cgi-bin you just created. Click OK.

In IIS Manager, highlight the cgi-bin directory and select **Features View** and **Authentication** from the IIS options.



Right-click **Basic Authentication** and select **Enable**. Right-click again and select **Edit**. Enter your **domain** (NetBIOS name only necessary) into the subsequent popup and click OK. Ensure the other authentication methods are **Disabled**.

Select the **Default web site** again and **Stop / Start** it using the controls on the right.

Now see the relevant section for the CGI app you wish to use and section 2 for the **Universal Configuration Options**.

## 2. Universal Configuration Options

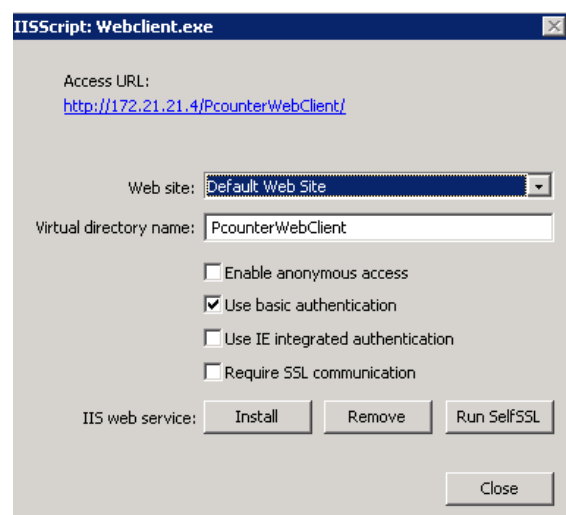
Once IIS is installed on the server copy the relevant **CGI executable** (for instance **WebClient.exe**) from C:\Program Files\Pcounter for NT\NT into C:\inetpub\wwwroot\cgi-bin\

### 2.1 IISScript SETUP

Each Pcounter CGI app is configured using this window. See the relevant section for each application on instructions on how to access this window (method varies depending on app).

The URL for the application can be changed by editing the text box **Virtual directory name**.

If you have set the application up on a website other than the existing **Default website** set this in the **web site** drop-down box. Ensure that you have both **Use basic authentication** and **Use IE Integrated Authentication** checked and hit **Install**.



A command window will load and process the necessary instructions. Once completed it will read **Script complete**.

The file [application].ini will have been created in the cgi-bin directory containing all preference settings.

You will now be able to browse to the URL at the top of the application.

## 2.2 CONTROLLING ACCESS

There are no facilities with the applications themselves to restrict access. Access should be restricted using Windows files permissions to the [application].exe file.

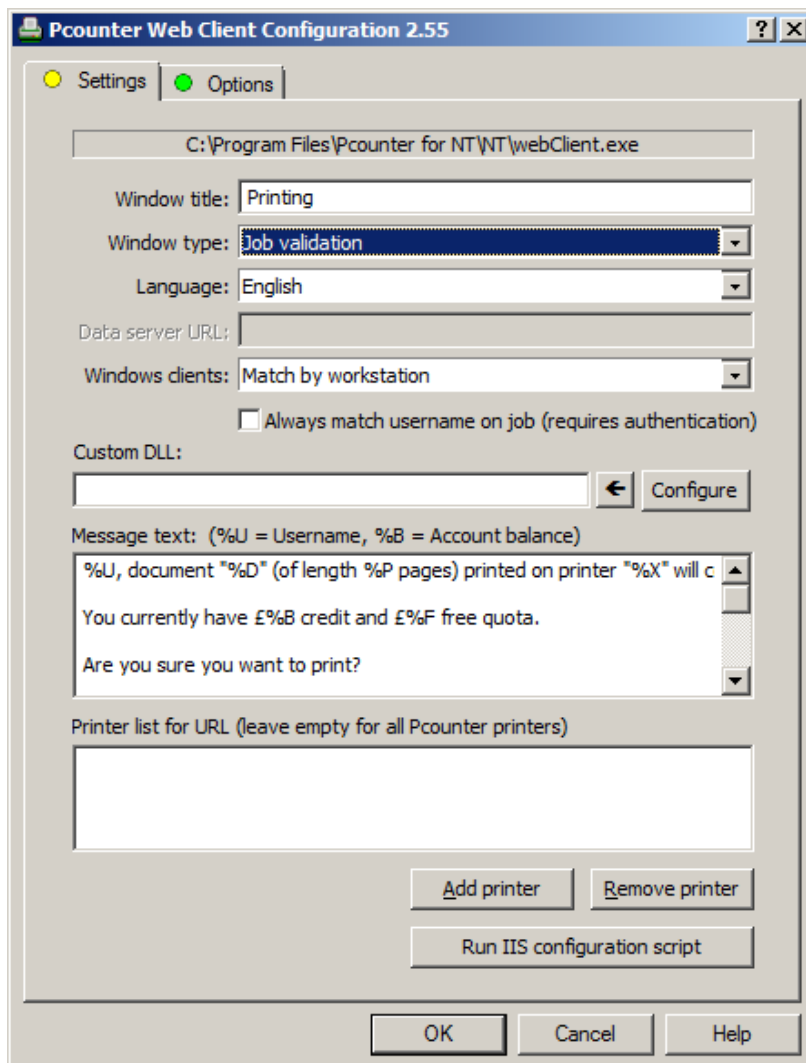
It is recommended to Deny Access to the All Users group, create a custom "Pcounter [Application] Access" group and grant access to this group.

## 3. Webclient

**Pcounter Webclient** is a utility application which allows users to log onto a webpage to release print jobs. This acts as a secure release mechanism and provides print confirmation. It can also be configured to allow a user to release jobs printed by other users, known as the **Teacher Release** configuration (see 3.4.1). It can also be used as a replacement for Pcounter Popup if this is not working for whatever reason.

### 3.1 CONFIGURING WEBCLIENT

Once the file Webclient.exe has been configured through IIS in the method described in 1.1 or 1.2, double-click the file to run the application.



You can edit the title of the webpage by changing **Window Title**.

There are a number of different Window Types offering different features. These are explored in **Appendix A**. The simplest of these is **Job Validation** which simply asks for confirmation before printing. Each has its own set of options, which is also explored in the same Appendix.

Message text allows you to customise the message the user will see on the release page. You have use of the following substitutions:

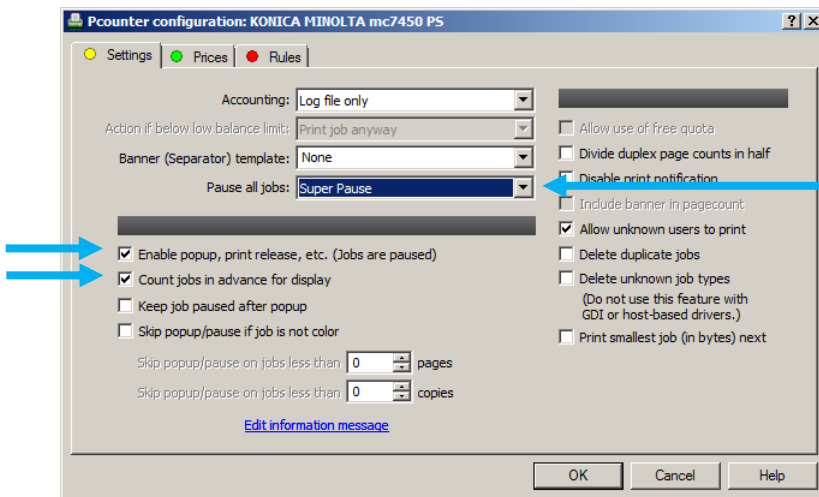
- Username %U
- Balance %B
- Document %D
- Page count %P

**Printer List** allows you to specify which printers are monitored by the Webclient. **Please note:** You will also need to configure the printer itself for use with the Webclient.

When the settings above are configured as desired hit **Run IIS configuration script** to load the window described in **2.1**.

### 3.2 CONFIGURING PRINT QUEUES FOR WEBCLIENT

All printers that are to be monitored by Pcounter Webclient require a few settings changes. To do this, open the local configuration of the printer in Pcontrol (right-click the printer > Pcounter > Configuration).



Check the box **Enable popup, print release etc...** This will automatically activate the following options:

- **Count jobs in advance for display**
- **Pause all jobs** will be set to **Super Pause**

Click **OK** and confirm when prompted to restart the Pcounter Printer Control Service

### 3.3 WEBCLIENT USAGE

PcounterWebclient in its most basic format (Job Validation) looks like:

Document	Printer	Pages	Cost
<input type="checkbox"/> English Coursework.docx	Library printer	1	0.10
<input type="checkbox"/> Maths Homework.xls	Library printer	1	0.10
<input type="checkbox"/> image.jpg	Common room printer	1	0.10

It will display, for the logged in user:

- Every document they have waiting (**Document**)
- The printer the job was printed to (**Printer**)
- The page count of that job (**Pages**)
- Total cost of the job if applicable (**Cost**)

Jobs can be **printed** or **deleted** by checking the associated checkbox and pressing the relevant button.

**Preferences** loads the adjacent popup which allows the end user to configure various personal settings.

Refresh rate in seconds (0 to disable):

Document list height (in pixels):

Client code list height (in pixels):

---

Documents are waiting - Restore window

No documents are waiting - Minimize window

**Document and Client code list heights** specify how many pixels of the screen is dedicated to these lists before requiring vertical a scroll bar.

**Documents are waiting – Restore window** and **No documents are waiting – Minimize window** allows the webpage to operate in the same manner as **Pcounter Popup**. Provided the window itself is left open, when jobs are waiting to print the window will maximise itself and when there are no jobs it will minimise, waiting on the taskbar. **Please note:** This feature is only compatible with **Internet Explorer**.

### 3.4 OPTIONAL SETTINGS

#### 3.4.1 "TEACHER RELEASE"

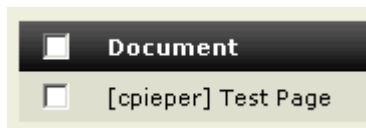
Webclient can be configured to show all waiting print jobs to the logged in user, regardless of the owner of the job. The logged in user can release the jobs for other users and if necessary select a Client Code.

This configuration can be used to allow an authority figure to authorise print jobs for other users, such as a teacher authorising a students' prints.

To enable Teacher Release mode, make the following additions in C:\inetpub\wwwroot\cgi-bin\webclient.ini once Webclient has been installed as already described:

Under the heading **[Settings]** (create this heading if it does not exist) add

- **DisplayAllJobs=2**
- **DisableJobOwnerChange=1**



The **username** of the job owner will now be displayed in [] in the **Document** column along with the document name. When printed the job will still be logged by the user who initially printed the job rather than who released it.

**Please note:** If configuring for Teacher Release mode please remember to restrict access to the webpage through **AD/NDS permissions** (see [2.2](#))

#### 3.4.2 MULTIPLE WEBCLIENTS

It is possible to configure multiple Webclient pages to run simultaneously, each with a different URL. The advantage of this is that you can restrict each different webpage to certain printers, therefore restricting which printers certain users can print to and release from. This configuration is also commonly used in conjunction with the Teacher Release mode to restrict each webpage to a specific printer, so each classroom or subject has a different release page.

To configure for multiple Webclients, simply:

- Place as many copies of Webclient.exe into C:\inetpub\wwwroot\cgi-bin\ and configure as described above in [3.1](#) and [3.2](#).
- Restrict each Webclient.exe to the desired list of printers
- Change the **Virtual Directory Name** during the installation to the desired name

**Please note:** If using in conjunction with **Teacher Release** remember that you will now have multiple copies of Webclient.ini which will need altering as per [3.4.1](#).

## 4. ACCOUNT.EXE for Balance Transactions

Account.exe is an accounting application which allows non-technical members of staff to edit users' balances without the need to give them access Pcounter Administrator.

### 4.1 CONFIGURING ACCOUNT.EXE

Ensure that file ACCOUNT.EXE has been copied into the cgi-bin directory and been configured in the manner described in [1.1](#) or [1.2](#).

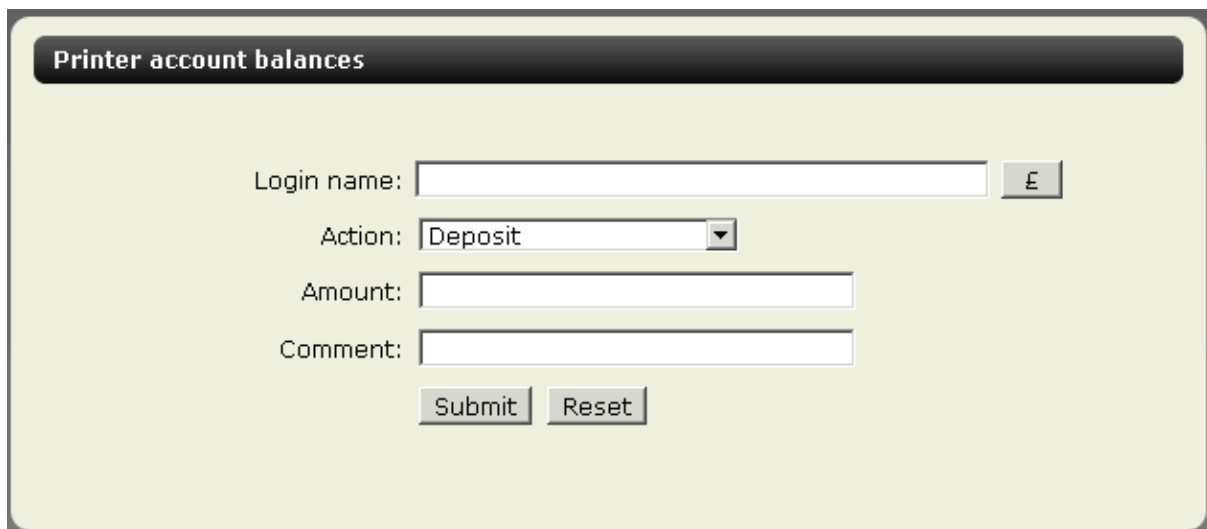
Browse to the cgi-bin directory at a command line and type the command:

```
ACCOUNT IISCFG
```

This will load the window described in [2.1](#). See this section for details.

### 4.2 USING ACCOUNT

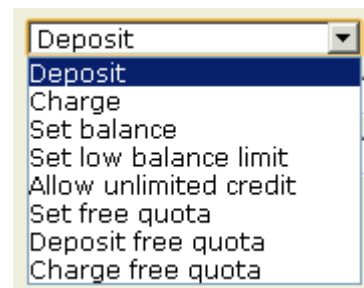
The URL will prompt for authentication then load the following page:



Enter the username of the user's balance you wish to edit into the **Login name:** control. Pressing the £ will query the user's current balance and return their full name from AD. This is useful to confirm that the correct username has been entered.

The **Action** drop down box contains a choice of these options to perform on the currently selected user.

**Please note:** for full descriptions of these transactions see [Pcounter Administrator End User Guide](#). Full descriptions of these transactions are outside the scope of this document.

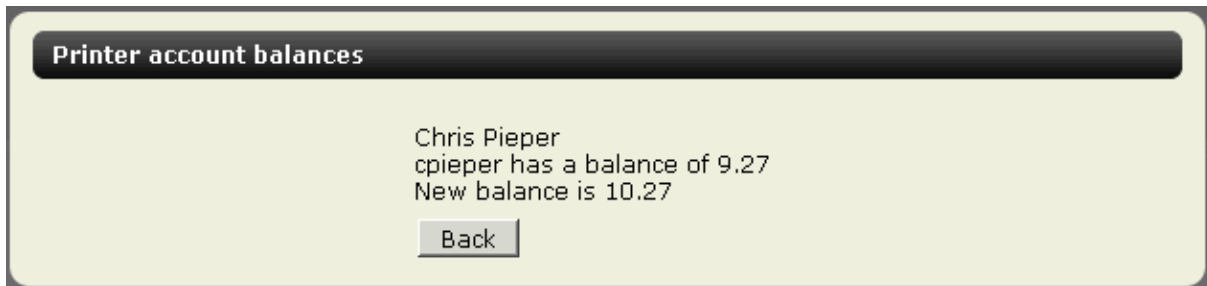


Enter the value *in pounds* into the **Amount** control. The format is pounds and pence so 1.00 = £1.00.

**Comment** is optional, allowing you to enter a description of the transaction, for example **Refund**. This will be recorded in the **Document** field in the Pcounter log.

Chris Pieper  
cpieper has a balance of 19.35  
cpieper has a credit limit of 0.00  
cpieper has a free quota of 0.00

**Reset** clears the form, whilst **Submit** will perform the current transaction and report back once complete:



**Please note:** In order to use **Account** the user must have **write access** to the **Pcounter Balance Database**, default filepath C:\PCOUNTER\DATA\[DOMAIN-NAME].DBF.

If the user does not have sufficient rights to this file they will receive an **Access Denied [5]** error when trying to edit a balance.

## 5. Balance.exe for self-checking of a user's balance

Balance.exe allows a user to check their own Pcounter balance via a webpage.

### 5.1 CONFIGURING BALANCE

Ensure that file BALANCE.EXE has been copied into the cgi-bin directory and been configured in the manner described [1.1](#) or [1.2](#).

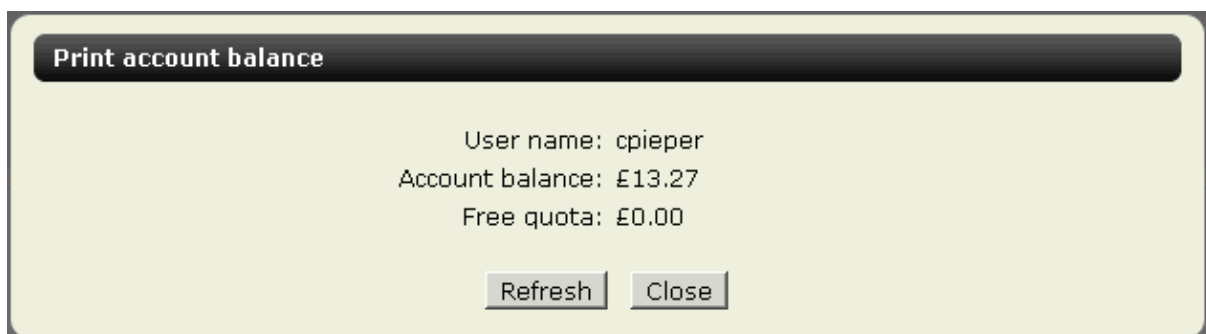
Browse to the cgi-bin directory at a command line and type the command:

```
BALANCE /IISCFG
```

This will load the window described in [2.1](#). See this section for further details.

### 5.2 USING BALANCE

The URL will prompt for authentication then load the following page:



## 6. Pcounter Web Reporting

**Pcounter Web Reporting** allows authorised users to produce Pcounter reports over the web without the need to grant them access to Pcounter Administrator.

**Please note:** This application is different to the additional reporting module **Pcounter Web Reports**. For more information on this product and the additional features it offers (such as automated scheduled reports) and to download a free 60 day trial see <http://www.altman.co.uk/downloads/print-copy-management>.

### 6.1 CONFIGURING PCOUNTER WEB REPORTING

Ensure that file PcounterReporting.exe has been copied into the cgi-bin directory and been configured in the manner described [1.1](#) or [1.2](#).

Double-click the file to run the configuration and load the window described in [2.1](#). See this section for further details.

### 6.2 USING PCOUNTER WEB REPORTING

The URL will prompt for authentication then load the following page:

The screenshot displays the 'Summary Reports' web interface. On the left is a navigation menu with the following items: Summary Reports, Activity Reports, Accounting Reports, Charts, Favorites, and Preferences. The main content area is titled 'Summary Reports' and contains the following elements:

- A table listing report types with columns for 'Type' and 'Printer':

Type	Printer	
User		
User	Printer	
User	ClientCode	
User	Application	
User	Paper Size	
User	Duplex	
User	Media Type	
User	Non-Billable Job	
User	Printer	ClientCode
Printer		
Printer	User	
Printer	ClientCode	
- Three radio buttons for report format:  Summary,  Detailed, and  Statement.
- A 'Primary Field Filter' section with a dropdown menu set to 'Matches' and an adjacent text input field.
- Four checkboxes for report content:  Subgroups,  Color Usage,  Job Type, and  Print Jobs. Below these are four checked checkboxes:  Copy Jobs,  Scan Jobs, and  Fax Jobs.
- A horizontal separator line.
- Filter options: 'Log Data' (dropdown set to 'Current Log File'), 'Time Filter' (dropdown set to '(None)'), 'Start Date' (text input with a calendar icon), and 'End Date' (text input with a calendar icon).
- A 'Generate' button at the bottom.

Choose the desired report using the menu in the left frame then the controls in the middle of the page.

Clicking **Generate** will produce the report:

**User Printer: 01/04/2011**

Date/Time	Document	Page Count	Cost	Total Jobs
<b>User: cpieper, Printer: Common room printer</b>				
01/04/2011 13:50:29	Web Printing.htm	1	0.10	1
01/04/2011 13:50:30	College Newsletter.pdf	1	0.10	1
<b>Totals</b>	-	<b>2</b>	<b>0.20</b>	<b>2</b>
<b>User: cpieper, Printer: Library printer</b>				
01/04/2011 13:50:37	Maths Homework.xls	1	0.10	1
01/04/2011 13:50:39	English Coursework.doc	1	0.10	1
<b>Totals</b>	-	<b>2</b>	<b>0.20</b>	<b>2</b>
<b>Report Totals</b>	-	<b>4</b>	<b>0.40</b>	<b>4</b>
<b>Average Job</b>	-	<b>1.000</b>	<b>0.10</b>	-

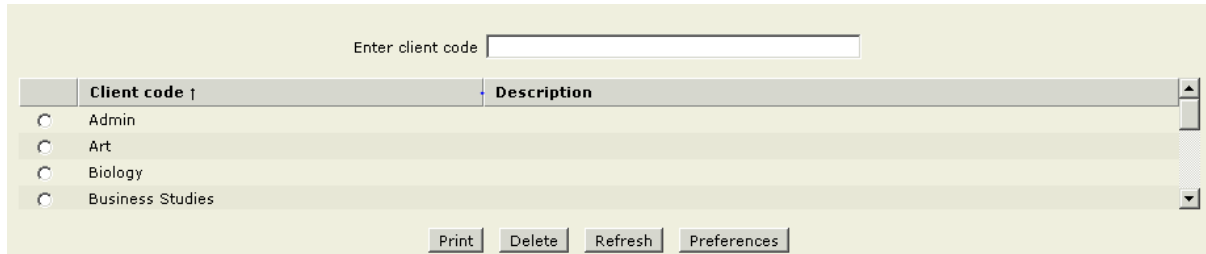
Generated by Pcounter Fri Apr 01 13:50:51 2011 ▲

**Please note:** An explanation of each individual reporting option is outside the scope of this document. For a full and detailed guide on **Pcounter Reports** please see the [Pcounter Administrator Reports Generator User Manual](#).

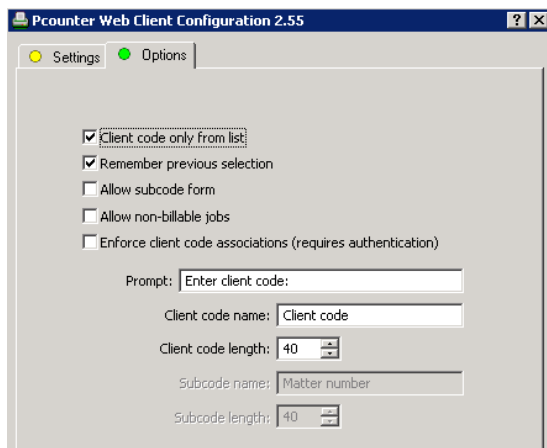
## Appendix A: Web Client Window Types

This Appendix will briefly explore the features of the different Window Types of Webclient. Each Webclient Window Type is modelled on a **Pcounter Popup** Window Type and consequently more detailed discussions can be found in the [Pcounter Popup, Client Codes and Pcounter Users' Manual](#), **section A**.

### 1. CLIENT CODE LIST



Client code ↑	Description
<input type="radio"/> Admin	
<input type="radio"/> Art	
<input type="radio"/> Biology	
<input type="radio"/> Business Studies	



**Client Code list** allows the user to assign a **Client Code** (or Department code) to the released print job by selecting it from a pick list. Manual free type is also permitted using the **Enter client code** text box. The feature is useful when used in conjunction with Teacher Release as it allows users in a position of authority to select the correct code for other users' prints.

The Webclient Configuration application Options tab offers the standard Client Code list options that are also available for Pcounter Popup Window Type.

### 2. ENTRY FORM

**Entry Form** allows only **manual type** of Client Code. Settings on the Options tab are the same as with Client Code list.

### 3. JOB VALIDATION

**Job Validation** is the simplest configuration and is simply used to confirm printing. The Webclient page simply shows the list of queued jobs. There are no additional settings on the Options tab for Job Validation.

### 4. MATTER NUMBER LIST

The Matter Number list allows for the free type or selection of a 2-tiered client code ("sub-code").



Client code ↑	Description
<input checked="" type="radio"/> Admin	
<input type="radio"/> Art	
<input type="radio"/> Biology	
<input type="radio"/> Business Studies	

Subcode ↑	Description
<input type="radio"/> 4500	
<input type="radio"/> 5500	
<input type="radio"/> 6000	

## 5. EMBEDDED LOGON

**Embedded Logon** includes a Username and Password box on the page, which can be used to enter the credentials of a **Pcounter User** or of another **AD User** if access to the webpage has been setup with Anonymous Access.



The image shows a screenshot of a login form with a light green background. It contains two input fields: 'User name:' and 'Password:'. The 'User name:' field is highlighted with a yellow border. The 'Password:' field is a standard white input box with a grey border.

The choice between AD Users and Pcounter Users is set on the Options tab of the Webclient Configuration application.

This option is useful in a public access area where users do not have their own AD account but you still wish to account for and potentially charge these guest users for their printing.

## 6. JOB ID

**Job ID** changes the print job owner name for visual identification only. This is intended for use with Pcounter Station or for situations where users are sharing login accounts and additional information for identifying print jobs is required.

## 7. AUTOMATIC VALIDATION

With Automatic Validation set all jobs queued will be **automatically released** when the page is loaded. If using Teacher Release mode this will release all jobs for all users, if not just the jobs for the logged on user will be released.