BACS.IP User Guide

A Comprehensive Guide to BACS.IP

Document Information

Document Date	13/04/2012
Product Version	1.3.2

Table of Contents

1 Product History

1.1 What's new in BACS.IP version 1.3.2?

The following is a comprehensive list of the changes made in BACS.IP Version 1.3.2

- Individual transactions are now capped at £20,000,000
- Full support for RTI (Real Time Information) transfers for custom file formats.

1.2 What's new in BACS.IP version 1.3.0?

The following is a comprehensive list of the changes made in BACS.IP Version 1.3.0

- The latest ISCD database has been included.
- BacsCalendar now contains bank holiday dates until 2010.
- BACS.IP now supports and runs on Windows Vista operating systems.
- During the installation of BACS.IP, a data directory can be specified that differs to the program files directory. Data directories are used to store information such as payment files, reports and log files.
- A new Address Book feature has been added to the Manual Submissions interface. This allows for the storing and retrieving of bank account details used when creating manual submissions.
- Modified to run on SQL Server 2005 to ensure compatibility with Windows Vista
- Added the ability to export a summary of Submissions to a CSV file
- A new 'Back Office Profile' filtering option available in the payment files, submissions and reports filter dialogs of the BACS.IP Submissions client application
- System Users can now be restricted to only see payment files, submissions and reports imported from a particular back office profile
- BACS.IP has been updated with a new icon set.

1.3 What's new in BACS.IP version 1.2.0 build 232?

The following is a comprehensive list of the changes made in BACS.IP Version 1.2.0 build 232

- Secure Sockets Layer – BACS.IP clients can now connect to the server using SSL connections. This feature allows for extra security particularly in environments where the client and server are located on different sites and communicate over an external network connection

1.4 What's new in BACS.IP version 1.2.0 build 205?

The following is a comprehensive list of the changes made in BACS.IP Version 1.2.0 build 205

- Rebuilt using Microsoft .Net 2.0 framework.
- Improved audit messages are now written to the audit log, detailing the item changes and the value before and after the change was made.

- New columns in the rejected files view and payment files view – it is now possible to view the name of the back office profile used to import payment files.
- The user may select which invalid accounts are added to the list of accounts to ignore when validating submissions.
- A new facility to include a counter value in the reference field is provided by using a placeholder '%CNTn% within the back office configuration.
- A new Manual Submissions interface available from the BACS.IP Submissions application. This feature allows the user to create payment files manually, or edit the details of an existing payment file before sending them to BACS. Direct Debit, Direct Credit and Direct Debit Instructions can all be created and edited from this new interface.
- An additional Validation Report for both payment files and submissions, displaying all errors in payment files and payment instructions.
- An additional Account Type available to Service Users

1.5 What's new in BACS.IP version 1.1.1?

The following is a comprehensive list of the changes made in BACS.IP Version 1.1.1:

- **Account number and sort code validation** – Option added to suppress warnings for bank account validation errors.

1.6 What's new in BACS.IP version 1.1.0?

The following is a comprehensive list of the changes made in BACS.IP Version 1.1.0:

- **System service** – BACS.IP can now be run as a system service.
- **Submission Summary report changes** – the format of the Submission Summary report has been improved to show summary information for each payment file in the selected submission.

2 Introducing BACS.IP

2.1 Introduction

This guide will explain how to use BACS.IP, the Data Interchange Plc solution approved by BACS, which works with BACSTEL-IP ® to give you secure access to the BACS ® electronic funds transfer service.

In this guide we will provide some definitions of terminology used by BACS and by our software, but for complete information about BACS and BACSTEL-IP, please refer to the documentation provided by BACS.

This guide assumes a certain level of knowledge about BACS since, to require our software, your organisation must already have one or more Service Users and must therefore have acquired one or more Customer Numbers and an account hierarchy. Again, if you are not familiar with these terms, please refer to the documentation provided by BACS.

This guide also assumes that you have another software package which can produce payment files for importing to BACS.IP.

2.2 BACS

The Bankers Automated Clearing Service (BACS) is one of the world's largest automated clearing houses. It is owned by the UK's largest banks and building societies and operates under the umbrella of the Association for Payment Clearing Services (APACS).

BACS provides an electronic funds transfer service (EFT service) which can be accessed via a dedicated access channel, BACSTEL-IP, using BACS approved software.

Electronic funds transfer falls under the broad categories of Direct Debit, Direct Credit and Direct Debit Instructions, all of which can be performed in both Sterling and Euros.

BACS approved software, such as BACS.IP, allows a BACS registered user to submit any of the supported transaction types to BACS for processing.

The new BACSTEL-IP system uses electronic reports (XML & HTML) to contact users – this service replaces all existing BACS paper reports. The reports are used to convey all information made available by BACS to the customer, regarding pending or executed EFT transactions, and the state of any unpaid credits and unapplied debits.

2.3 BACSTEL-IP

As you may be aware, BACS recently embarked upon a technology renewal programme to meet the ever-increasing demand for efficient electronic payment services. This technology renewal programme, referred to as NewBACS, will enable BACS to introduce online facilities and thus increase efficiency for UK businesses. The first phase of NewBACS involves upgrading the existing telecomm-based customer delivery channel (BACSTEL) to the new BACSTEL-IP system. By the end of 2005 the old system will have been phased out completely, rendering your old BACS software obsolete.

BACSTEL-IP is the new secure web-based interface that you will now use to connect to the BACS system. Using BACS.IP you will be able to send information directly to and receive reports directly from a BACS private network (extranet) or via the Internet.

2.4 BACS.IP

BACS.IP is a Windows-based client/server multi-user BACS-approved solution that replaces your old BACS-approved software or provides you with a new-found ability to connect to BACS. It can be used by any market sector, by single companies or by bureaux acting on behalf of more than one company.

The client/server architecture permits multiple users to access the server from different locations. All data is held on the server to ensure integrity, but is accessible to all the clients. Data can therefore be backed up from the server for complete security. Access to BACSTEL-IP is via the server but can be instigated from any client. A typical set-up taking advantage of the client/server architecture is illustrated in the diagram below.

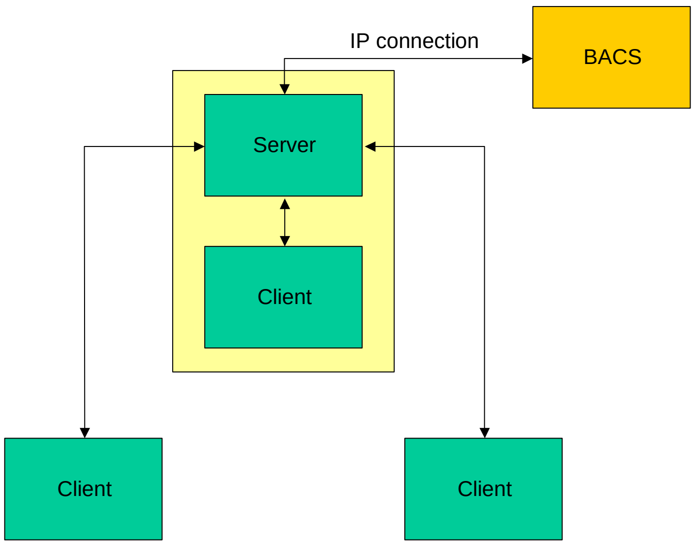


Figure 1- Client/server architecture

The diagram shows the server and a client installed on one machine, with two further clients installed on separate machines. Each client may access BACS via the server.

2.4.1 Data processing in BACS.IP

BACS.IP enables a large business to track, and automate as far as possible, the process of importing, validating, signing and transmitting BACS data. Separate configuration and submissions applications are provided. Different user permissions are required to run each application, so that specific users can be prevented from accessing sensitive areas, such as the configuration application, or from performing actions requiring a high degree of responsibility, such as signing submissions.

Once you have configured the BACS.IP system, using the Administrator, you can use the Submissions application to connect to BACSTEL-IP. The Submissions application handles everything relating to the BACS financial services system and is divided into four sections: Payment Files, Active Submissions, Archived Submissions and Reports.

The processing path is illustrated in the diagram below, and described in more detail in the following paragraphs.

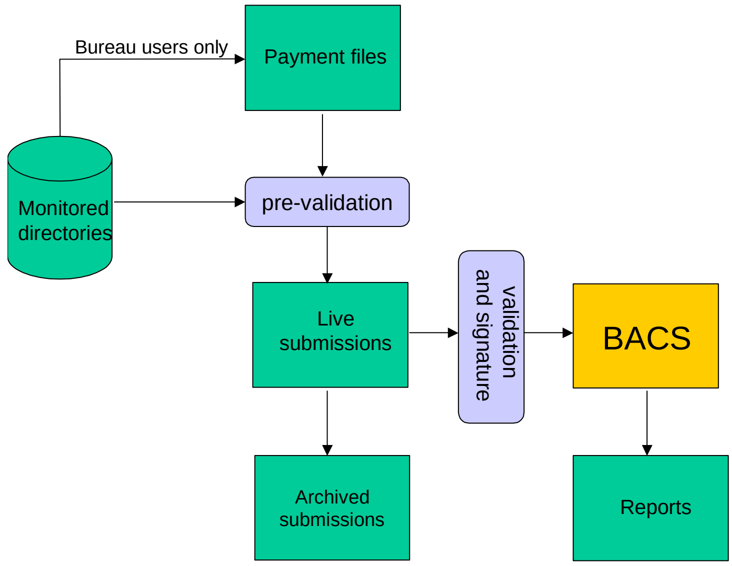


Figure 2- Processing path in Submissions application

Payment files are imported into the Submissions application from one or more monitored directories, either as payment files or as active submissions (depending on the configuration set up for individual service users). If imported as active submissions, each submission will contain only one payment file.

Some validation of the payment file is performed during the import process, to ensure that the file itself is valid.

Whether the file has been imported as a payment file or as an active submission, details of each payment file are accessible from the Payment Files page. From here, certain details of the payment file can be amended if necessary.

The main validation of the payment file account details is performed when a payment file or an active submission is signed.

All submissions must be signed by an authorised system user before being submitted to BACS. Payment files need only be signed if you have selected the "Payment files must be signed" option for a service user in the Administrator.

Once a submission has been signed and successfully submitted, BACS sends back reports to notify the service user of the submission's progress through the BACS system. These reports can be looked at in detail on the Reports view of the Submissions application.

Once the Input report for a specific submission has been received and read, the submission can be archived. Archiving may be done automatically or manually, depending on how you prefer to configure it.

2.4.2 Security in BACS.IP

One of the keynotes when dealing with BACS is security.

Any software used by BACS customers to connect to BACSTEL-IP must fulfil the stringent requirements specified by BACS. The software must provide at least the base functionality required by BACS and must pass the strict security tests set out in the BACS testing programme. BACS.IP has fulfilled all the conditions stipulated by BACS and has therefore been designated by them as approved software.

In addition to BACS security requirements, the BACS.IP software provides further security devices in the form of permissions granted or denied to individual users of the software.

To fulfil the BACS security requirements at least two users are required to use a smart card and smart card reader, obtainable either from your bank or from Data Interchange Plc, your software supplier. These users are the primary security contacts required by BACS.

The smart card contains a personalised digital certificate which allows you to create an electronic "signature" whenever you use it.

The smart card and reader, together with permissions granted in the Administrator, enable the user to carry out the following functions:

- Sign payment files and/or submissions
- Log on to BACSTEL-IP
- Send submissions to BACS
- Access reports

2.4.3 BACS.IP in your company

The diagram below shows where the BACS.IP software fits into your existing systems. It acts as an interface between back office systems capable of producing payment files, and the BASCTEL-IP service. The software provides validation of imported data, creation and sending of BACS submissions, and the downloading and viewing of reports created by BACS. All communications are performed using secure channels of communication with the latest PKI security (Public Key Infrastructure).

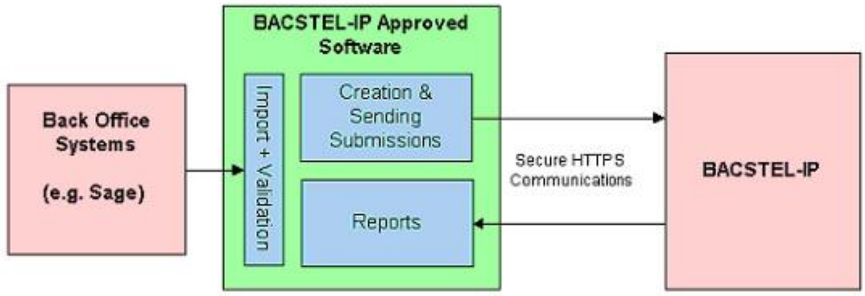


Figure 3 – BACS.IP in your system

2.4.4 BACS.IP functionality

The following functionality and features are provided by the software:

BACS approved software

Supports all BACSTEL-IP core functions to approved standard

Regular updates from the Industry sort code directory

Provides access to all BACS report types

Accepts data of any format from any back office application

Suitable for bureaux and individual companies

Supports multiple BACS user numbers

Simple and intuitive interface for creation of single and multiple file submissions

Security features

Supports a flexible user and user groups environment

Software functionality restrictions based on user privileges

Password protected access

Stores data in encrypted format

Full support for smart card and PKI technology

SSL client-server connections

Validation features

Account number modulus checking

Sort code validation against Industry sort code directory

Data validation as per the BACSTEL-IP Technical specification

Individual record value and monthly account limit checks

Audit and reporting functionality

Full audit trails

Searchable record of submissions transmitted to BACS and reports received from BACS

BACS reports may be previewed and/or printed

Reports available in XML and XHTML format

Architecture

True multi-user client/server architecture

Platforms supported

Windows 2000

Windows 2000 Server

Windows XP

Windows 2003 Server

Windows Vista

3 Running BACS.IP as a system service

Once you have installed BACS.IP, you can run it as a System Service. Running BACS.IP as a System Service provides a way of ensuring that BACS.IP runs continuously without being stopped, even when the user is logged off. This is beneficial to any user who needs to ensure that BACS.IP is always running yet is not accessible to any unauthorised person.

3.1 Starting

To set BACS.IP running as a system service, click **Start >> Programs >> Data Interchange Plc >> BACS.IP >> Install Server as Windows Service**. You will see a batch program start to run in a command prompt window. When the program completes, this window will disappear and BACS.IP will now be running as a system service. You will notice that the BACS.IP Server icon no longer appears in the system tray.

3.2 Stopping

If you have BACS.IP configured as a System Service but wish to stop it running temporarily, in order to restore the database for example, you will firstly have to open the Services applet from the Control Panel (**Start >> Settings >> Control Panel >> Administrative Tools >> Services**).

Here you must highlight BACS.IP in the list of services, then click the '**Stop**' button. After a few moments the status of BACS.IP will change from 'Started' to blank. You can restart BACS.IP by repeating these steps but this time clicking the '**Start**' button.

To stop BACS.IP permanently from running as a system service, you should run the batch program UNISVR.bat, which is found in the BACS.IP installation directory.

3.3 Upgrading BACS.IP

When you upgrade to a new version of BACS.IP, you will need to stop the old system service, as described above, and set it not to start automatically when Windows starts.

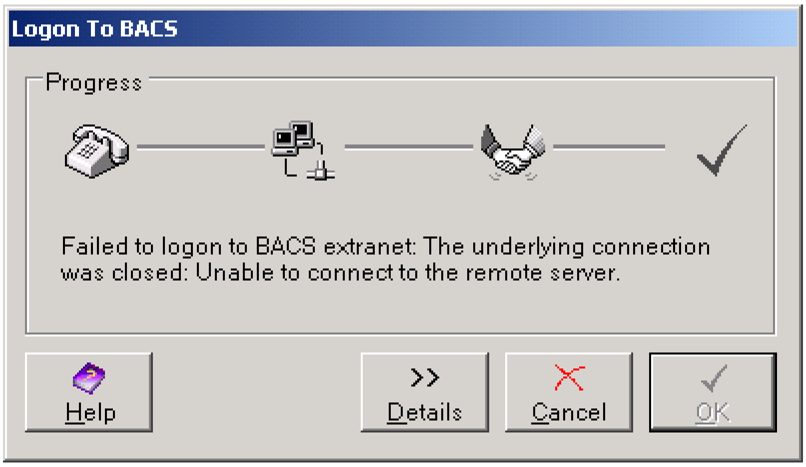
To do this, right-click on BACS.IP in the list of services and select Properties from the dropdown menu. On the dialog that appears, select Disabled as the Startup type and then click **OK**.

Then set the new server to run as a system service, as described above.

3.4 Connecting to BACS using an Internet Proxy

If you connect to BACS over the Internet, rather than using a dial up extranet connection, and your company network uses a proxy server for internet access, then you may experience problems connecting to BACS after installing the system service. Some proxy servers require authentication before allowing a program to access the internet.

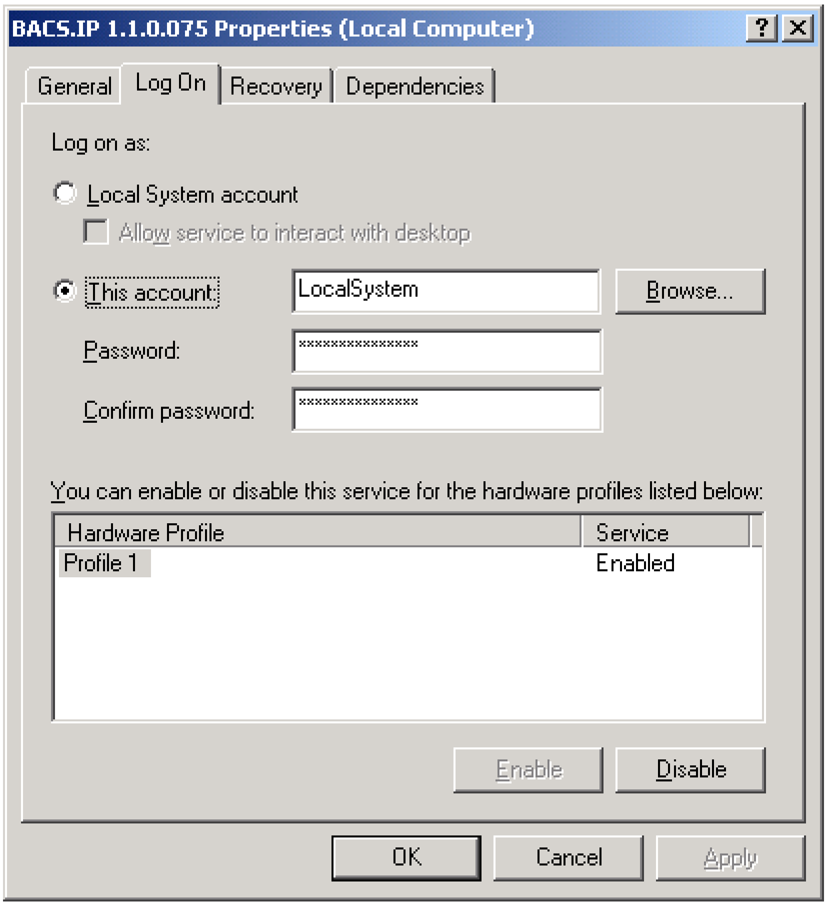
BACS.IP uses the Internet Explorer proxy server settings – these can be viewed in Internet Explorer (**Tools >> Options >> Connections >> Lan Settings**). BACS.IP will log on to the proxy server using the current Windows account. When BACS.IP is installed as a service, it runs using the System account of the computer, rather than the currently logged on user. This can prevent proxy server connections from being established. When attempting to log on to BACS, you may see the following error screen:



In this situation, there are several steps you can take to work around the problem:

3.4.1 Workaround 1

Configure the service to run under a user account that does have access to the proxy server. To do this, go to the 'Log On' tab of the properties screen for the BACS.IP service (**Start >> Settings >> Control Panel >> Administrative Tools >> Services**). Select the 'This Account' option. Enter the account name and password for a user with access to the proxy server.



The example above shows the configuration of the "Log On" page tab of the service properties.

3.4.2 Workaround 2

Configure the proxy to accept connections from the computer's account on the domain (e.g D01\COMPUTER_NAME). Please refer to your proxy server documentation to find out how to do this.

3.4.3 Workaround 3

Configure the proxy to accept connections from the computer’s specific IP address. Please refer to your proxy server documentation to find out how to do this.

4 Installing the software

4.1 Introduction

This chapter provides a step-by-step description of how to install the BACS.IP software. First, you need to ensure that you meet the requirements for installing and running the program.

4.1.1 Platforms

BACS.IP has been tested to run on the following platforms:

Windows 2000

Windows 2000 Server

Windows XP

Windows 2003 Server

Windows Vista

4.1.2 Hardware and software requirements

To install and run BACS.IP, you will require Windows NT 4.0 SP6, Windows 2000, Windows XP, Windows 2003 Server or Windows Vista with Internet Explorer 5.01 or above already installed.

You will also need a means of electronic communication with BACS. This could take the form of a dial-in connection using a modem, or connection via an existing network router.

In addition to one of the Windows operating systems listed above, you will also need the .Net framework. If you do not have this installed, it will be installed for you automatically when you install BACS.IP.

4.1.2.1 Security requirements

To meet BACS security requirements, you will also need:

- Smart cards – You will need two or more smart cards supplied by your bank or its agent. This will contain the digital certificate required for signing payment files and/or submissions and logging onto BACSTEL-IP. It will also be accompanied by a PIN number, which should be changed when you use it for the first time, for security reasons. You must activate the smart card on the BACSTEL-IP website before you can use it.
- Smart card reader – You will need one or more smart card readers. These may be supplied to you by Data Interchange Plc or by your bank.
- Signing software – You will need to install the smart card signing software on a client machine. This may be supplied to you by Data Interchange Plc or by your bank. Together, the smart card reader and signing software make up the signing solution.

4.2 Installation

4.2.1 Introduction

First of all, please read the License Agreement included in the package containing the distribution media. It is very important that you understand and agree to the terms and conditions relating to the software before opening the CD and installing it.

4.2.2 Installation and Setup

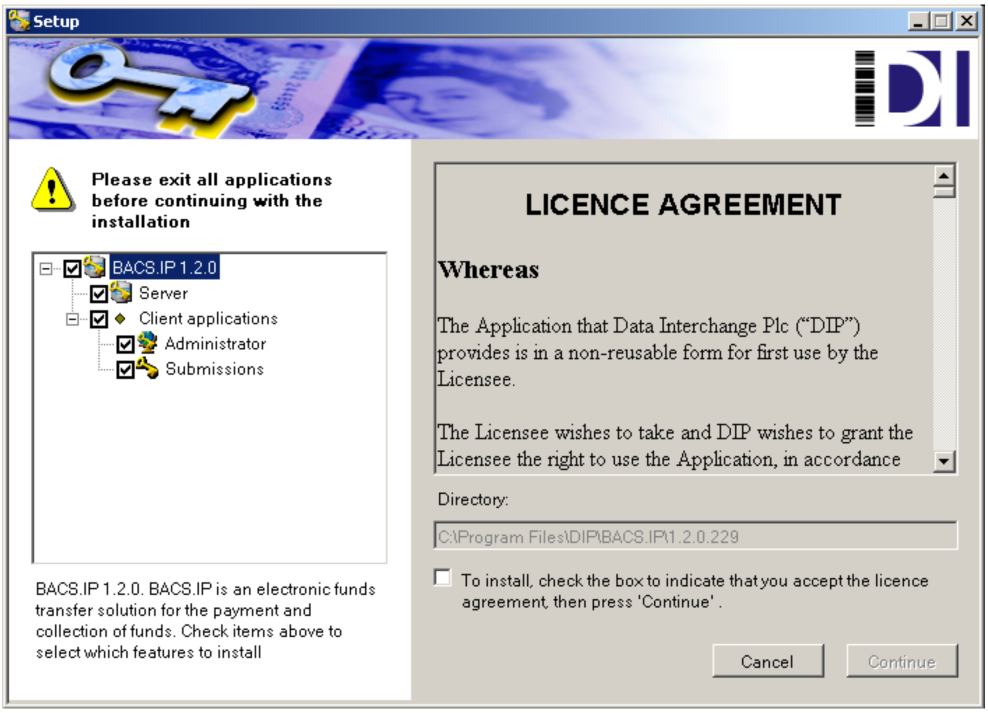
Before installing the BACS.IP software, please ensure that you close all other applications.

In order to run the installation program, please ensure that you have Windows Administrator privileges on the machine you are installing on.

Now insert the BACS.IP CD into the CD-ROM drive of your computer. The installation program should begin automatically after a few moments but, if it does not, select **Start >> Run** from your Windows toolbar, and type in D:\setup.exe (where D is your CD-ROM drive) then click the **OK** button. This will begin the installation process.

4.2.2.1 Normal installation procedure

When you begin the installation, the first thing you will see is the following dialog:



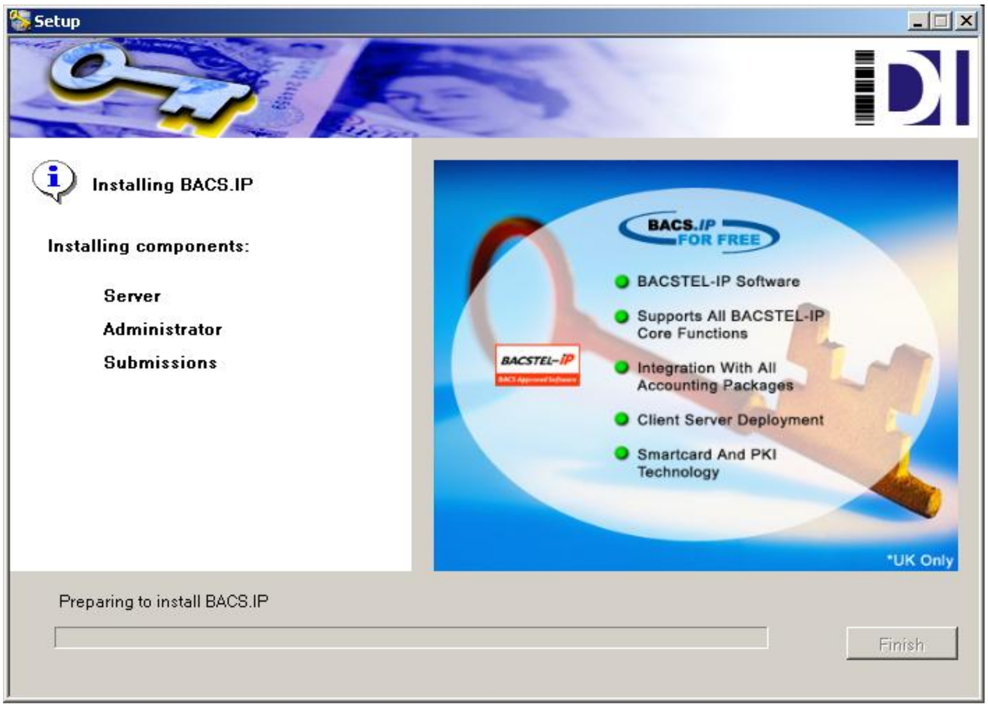
This dialog allows you to choose whether or not to install the BACS.IP server and client applications on this machine. The client/server architecture means that you can install the two client applications on as many different computers as required.

If you do not install the server on this machine, you must install it on a machine that will be accessible to all the clients on your local area network.

Please consider carefully which application(s) to install, as you will only be able to undo your choice by cancelling the installation after this point.

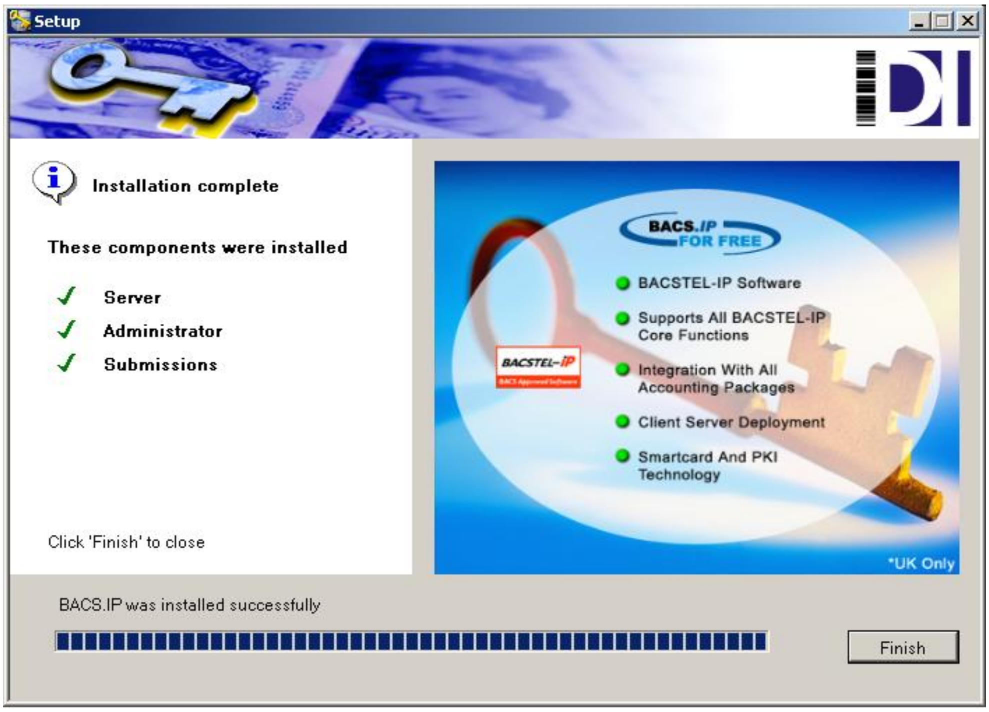
When you have decided which application(s) to install on this machine and you have read and agree to the terms and conditions, select the check box to indicate your agreement to the terms and conditions. This will enable the **Continue** button. Click **Continue** to continue with the installation. If you click **Cancel**, the installation will close.

After clicking **Continue**, you will see the following dialog while the installation proceeds.



This shows you how the copying of files is progressing.

When the installation is complete, you will see the dialog below:



If you do not already have SQL Server 2005 installed, the SQL Server 2005 installation program will automatically be started when you click the **Close** button. Please refer to the section entitled “Installing SQL Server 2005”.

If you already have SQL Server 2005 installed, you must choose where you want BACS.IP to install its database. Please refer to the section entitled "Configuring your BACS.IP database".

4.2.2.2 Installing SQL Server 2005

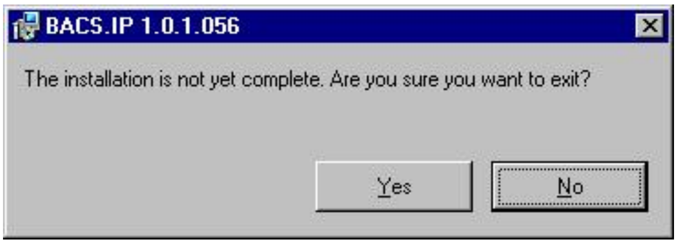
Unless you already have another Data Interchange Plc product installed that uses SQL Server 2005 you will be offered the option of installing this database engine. The installation will begin automatically and will notify you when the installation is complete. Please note that this may take some time to install.

Once SQL Server 2005 has been installed you must configure the BACS.IP database. Please refer to the section entitled "Configuring your BACS.IP database" for full details.

Once you have installed the Administrator, you can perform the steps described in the Quick Start Guide. Please refer to the section entitled "Quick Start Guides" for full details.

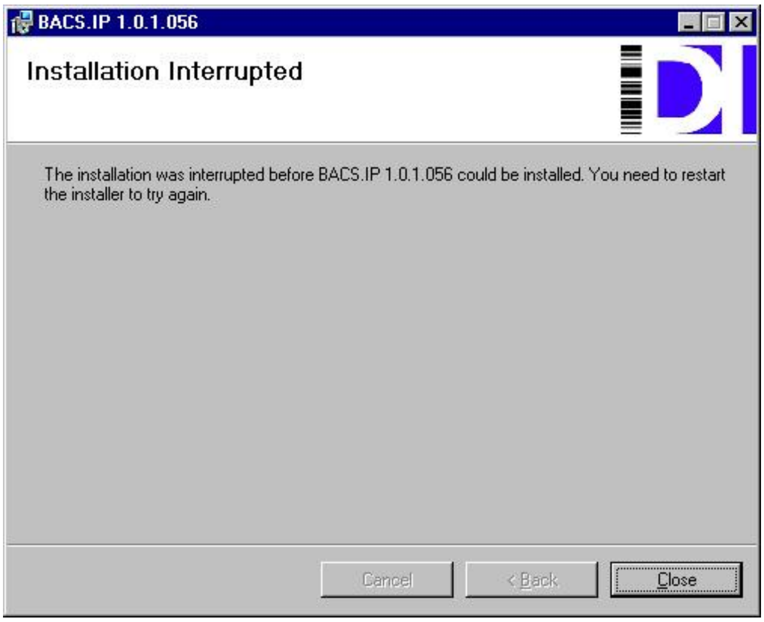
4.2.2.3 Cancelling BACS.IP installation before completion

At any point during the installation you may click on the **Cancel** button to stop the installation before it is complete. When you click the **Cancel** button, you will then see the following message box:



Click **Yes** to quit the setup, or **No** to continue with the setup.

If you click **Yes** to quit the setup, you will then see the following dialog:



Click the **Close** button to close the installation, and restart the installation when you are ready.

4.3 Configuring your BACS.IP database

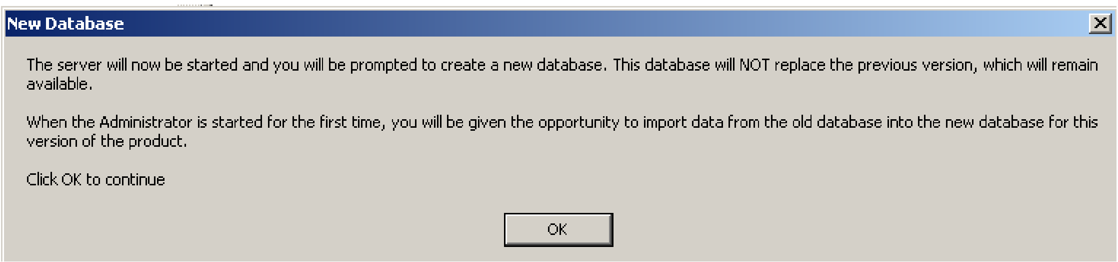
Once the SQL Server 2005 configuration is complete, depending on the version of Windows you are working with, you will see one of two message boxes.

- **Setup succeeded**. Just click **OK** to continue. The BACS.IP server will then be started.

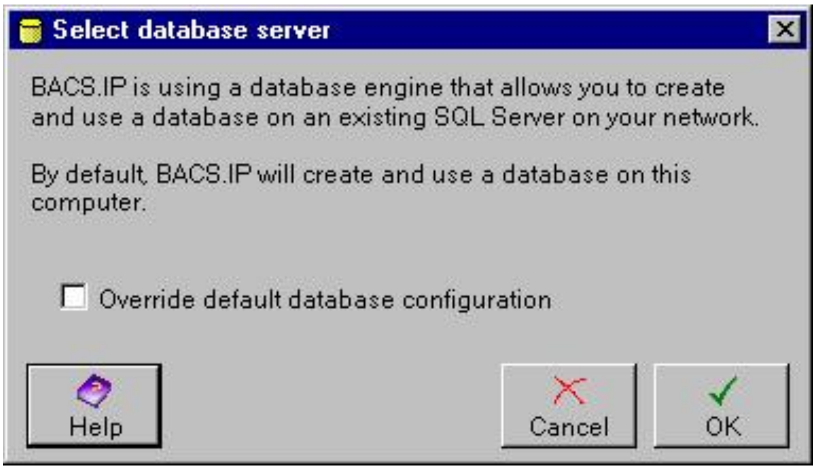
- **Restart computer**. This informs you that the computer must be restarted for the changes to take effect. Click **Yes** when asked if you wish to restart the computer now. This will restart your computer and automatically start the BACS.IP Server.

4.3.1 Simple configuration

On starting the BACS.IP Server, you will see the following dialog:



Click OK to continue setting up the BACS.IP database.



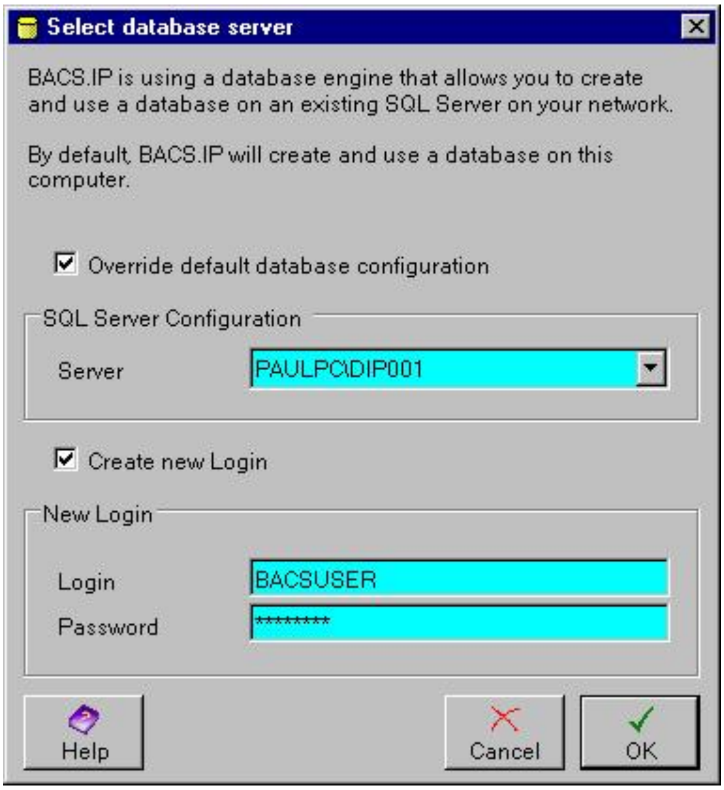
This explains that BACS.IP uses a database engine that allows you the choice of creating and using a database on this computer, or creating and using a database on an existing SQL Server on your network.

If you want to create and use a database on this computer, just click the **OK** button.

If, instead, you want to use an existing SQL Server on your network, select the Override default database configuration tickbox. This will expand the dialog to allow you to change the settings, as shown in the following section.

4.3.2 Advanced Configuration

This option is for users who want to create a database on an existing SQL Server.

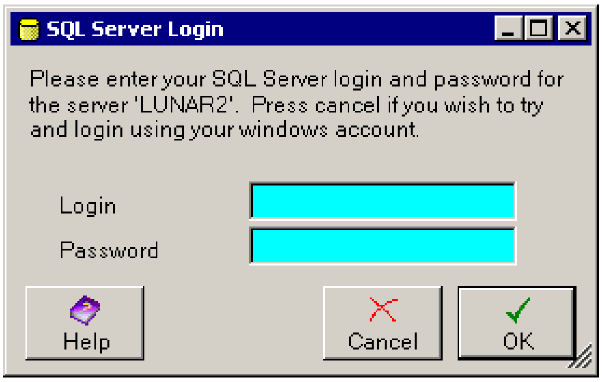


Server – This is the name of the SQL Server upon which the BACS.IP database will be created. In the Server field, use the dropdown arrow to select the existing SQL Server where you want to install the BACS.IP database.

New Login – This is the Login and Password that will be created to enable the software to access the BACS.IP database. Uncheck the tick box to force BACS.IP to login to the selected SQL server using the Windows account under which it is being run. You will need to do this if the selected SQL server does not support 'Mixed Mode Authentication'. Note that any Windows users that may run the BACS.IP software will need to be explicitly enabled against the selected SQL Server using your SQL Server client tools.

4.3.2.1 SQL Server Login details

If you select a new Server, you will see a dialog similar to the one shown below:



Type in the Login and Password to be used to access the SQL Server and click **OK**.

Alternatively, if you wish to try and login using your Windows account, click the **Cancel** button.

4.3.3 Result for all configurations

If the selected Server, Login and Password are all compatible, or if you chose the simple configuration option, you will see the message box below. The new database has been created on the selected SQL Server and will now be ready for use.

The BACS.IP Server icon will appear in your system tray. You can now start the Administrator and perform the Quick Start procedure. For full details, please refer to the section entitled "Quick Start Guides".

5 Quick Start Guides

5.1 Introduction

Welcome to Data Interchange Plc's BACS.IP software. You have completed the installation procedure and are now ready to configure the software for use. This Quick Start Guide will describe each area that you need to configure, then link you to the main part of the guide for full details of the information you must provide. So, after completing each area, press the Back arrow 

at the top of the Help to return to this section and continue with configuration of the next area.

Before you begin, please make sure you have the following information to hand:

- *Your BACS.IP serial number, licence code and, if applicable, facilities code. These should have been provided by your software supplier.*
- *Your Service User number(s)*
- *The bank details (account number and sort code) for each service user*
- *The file format for data being imported (e.g. Standard 18 or a proprietary format)*

The BACS.IP software has three components: the Server, the Administrator and the Submissions application. After successful installation of the software, the Server will have started automatically. You now have to configure the software using the Administrator before you can use the Submissions application to interact with BACS.

Please refer to the appropriate Quick Start Guide below:

"Quick Start for Service Users"

"Quick Start for Bureau Service Users"

5.2 Quick Start for Service Users

First start the BACS.IP Administrator by double-clicking on the shortcut icon on your desktop 

Once you can see the Administrator, use the icons in the left-hand panel to configure each of the following areas.

You must configure each area in the order shown below, and click the **Save** button before continuing to the next area.

5.2.1 Licence Codes (1 of 6)

 Click the Licence Codes icon to bring up the Licence Codes screen.

Here you must enter the Serial Number and Licence Code that you received with the software. If you have been given a Facilities Code too, that must also be entered here.

For full information about the Licence Codes screen, please see the section entitled "Licence Codes", then return to this section.

5.2.2 Service Users (2 of 6)

 Click the Service Users icon to bring up the Service Users screen.

This section allows you to configure one or more service users on whose behalf submissions will be transmitted to BACS.

Service user accounts must be set up by your bank before being added here. You must have at least one service user account set up in order to send payment files to BACS.

If your organisation has more than one service user account, or if you provide a bureau service, you must configure each service user here before you can send payment files or retrieve reports on their behalf.

Information required on this screen includes:

- The BACS number of the Service User
- Bank account number of the Service User
- Sort code of the account
- Submission status (set to Structural Test for the BACS validation process)

For full information about the Service Users screen, please see the section entitled "Service User Configuration", then return to this section.

5.2.3 System Users (3 of 6)

 Click the System Users icon to bring up the System Users screen.

This section allows you to configure the various users that may log onto the software. Users may be added to groups in order to restrict the functions that they can perform. This section allows you to create a new user and to associate the user with a smartcard (which they will subsequently use to log onto the BACS system).

A system user is someone who is given permission to use the BACS.IP software and is allocated a login ID and password to enable them to do so.

Since BACS require your organisation to have two Primary Security Contacts, we suggest that these two contacts are also set up as system users.

In addition, we strongly recommend that you set up at least two User Administrators, who may or may not be the same people as the Primary Security Contacts. User Administrators alone are responsible for adding new users to the Administrator application and editing existing user details (this includes resetting passwords for users).

Once you have set up two User Administrators, the "firsttime" account will be disabled for security reasons.

For full information about the System Users screen, please see the section entitled "System User Configuration", then return to this section.

5.2.4 Communications (4 of 6)

 Click the Communications icon to bring up the Communications screen.

This section allows you to configure the method to be used to connect to BACSTEL-IP – either through the extranet, or using an existing internet connection (possibly a LAN).

In order to submit files to BACS or to download BACS reports, you must be able to connect to the BACSTEL-IP service. This section allows you to define how the BACS.IP Server is to connect and send data to BACS.

You can connect either using existing network settings or via a dialup connection. If using dialup, BACS require you to use alternate dialup numbers for each attempt, therefore two different connections must be specified. These network connections must be set up beforehand using Windows Network and Dial-up connections.

For full information about the Communications screen, please see the section entitled "Communications Configuration", then return to this section.

5.2.5 File Formats (5 of 6)

 Click the File Formats icon to bring up the File Formats screen.

This section is where you must define the format of the files that will be used to import data into the BACS.IP software. You must define a file format for each back office system from which you will import data. Several common file formats, including the Standard 18 format, have already been defined for you. The Standard 18 format cannot be edited.

For full information about the File Formats screen, please see the section entitled "File Formats Configuration", then return to this section.

5.2.6 Back Office (6 of 6)

 Click the Back Office icon to bring up the Back Office screen.

This section allows you to configure a number of different back office systems from which payment files will be imported. Each system may have one or more monitor directories set up. For each monitor directory, a file pattern may be supplied. This area may be left with its default configuration settings, depending on how you want your system to work.

Once you have defined one or more File Formats in the preceding section, you must link those file formats to specific directories and file paths, so that the Submissions application has all the information it needs to import files. The locations configured here will be monitored automatically for new payment files.

For full information about the Back Office screen, please see the section entitled "Back Office Configuration", then return to this section.

You have now configured all the areas necessary for you to begin using the Submissions application to interface with BACSTEL-IP. This means you can import payment files, validate and sign them, submit them to BACS and download reports detailing their progress.

Start the Submissions application by double-clicking on the shortcut icon on your desktop 

5.3 Quick Start for Bureau Service Users

First start the BACS.IP Administrator by double-clicking on the shortcut icon on your desktop 

Once you can see the Administrator, use the icons in the left-hand panel to configure each of the following areas. You must configure each area in the order shown below, and click the **Save** button before continuing to the next area.

5.3.1 Licence Codes (1 of 6)

 Click the Licence Codes icon to bring up the Licence Codes screen.

Here you must enter the Serial Number and Licence Code that you received with the software. If you have been given a Bureau Facilities Code, that must also be entered here.

For full information about the Licence Codes screen, please see the section entitled "Licence Codes", then return to this section.

5.3.2 Service Users (2 of 6)

 Click the Service Users icon to bring up the Service Users screen.

You must first configure your Bureau Service User details. Then you must configure each service user for whom you will send files to BACS.

For full information about the Service Users screen, please see the section entitled "Service User Configuration", then return to this section.

5.3.3 System Users (3 of 6)

 Click the System Users icon to bring up the System Users screen.

You must link each system user to the Bureau and to each of the service users for which the system user will act.

A system user is someone who is given permission to use the BACS.IP software and is allocated a login ID and password to enable them to do so.

Since BACS require your organisation to have two Primary Security Contacts, we suggest that these two contacts are also set up as system users.

In addition, we strongly recommend that you set up at least two User Administrators, who may or may not be the same people as the Primary Security Contacts. User Administrators alone are responsible for adding new users to the Administrator application and editing existing user details (this includes resetting passwords for users).

Once you have set up two User Administrators, the "firsttime" account will be disabled for security reasons.

For full information about the System Users screen, please see the section entitled "System User Configuration", then return to this section.

5.3.4 Communications (4 of 6)

 Click the Communications icon to bring up the Communications screen.

In order to submit files to BACS or to download BACS reports, you must be able to connect to the BACSTEL-IP service. This section allows you to define how the BACS.IP Server is to connect and send data to BACS.

You can connect either using existing network settings or via a dialup connection. If using dialup, BACS require you to use alternate dialup numbers for each attempt, therefore two different connections must be specified. These network connections must be set up beforehand using Windows Network and Dial-up connections.

For full information about the Communications screen, please see the section entitled "Communications Configuration", then return to this section.

5.3.5 File Formats (5 of 6)

 Click the File Formats icon to bring up the File Formats screen.

Before you can import payment files to the Submissions application, you must tell the BACS.IP software what format the files will be in. To do this, you must define a file format for each back office system from which you will import data.

For full information about the File Formats screen, please see the section entitled "File Formats Configuration", then return to this section.

5.3.6 Back Office (6 of 6)

 Click the Back Office icon to bring up the Back Office screen.

Once you have defined one or more File Formats in the preceding section, you must link those file formats to specific directories and file paths, so that the Submissions application has all the information it needs to import files. The locations configured here will be monitored automatically for new payment files.

For full information about the Back Office screen, please see the section entitled "Back Office Configuration", then return to this section.

You have now configured all the areas necessary for you to begin using the Submissions application to interface with BACSTEL-IP. This means you can import payment files, validate and sign them, submit them to BACS and download reports detailing their progress.

Start the Submissions application by double-clicking on the shortcut icon on your desktop 

6 BACS.IP Server Overview

6.1 Introduction

In this section we will show you what the BACS.IP Server GUI looks like and how to use it. Please remember that the BACS.IP Server is the control centre of BACS.IP and as such should not be made accessible to unauthorised personnel.

6.2 The BACS.IP Server GUI

When the BACS.IP Server is up and running, you will see the Server icon in the system tray (this is usually at the right hand side of the task bar, which in turn is usually at the bottom of your screen). It looks like this: 

To show the BACS.IP Server GUI, click on the Server icon with your right-hand mouse button. This will bring up a popup menu with the options: **Stop**, **Restart**, **Control panel**, **System log** and **Shut Down**. Choose the **Control panel** option to see the GUI, as shown below.

The GUI is split into three sections: Product Details, Registration Details and Data Interchange Plc. Below these are the options available to you in the form of buttons. At the very bottom is the status bar, which shows the current status of the BACS.IP Server. In the example above, the status of the server is "Running".

6.2.1 Product Details

This section tells you the Server Name and the Product Version. These details are important and should be quoted if you ever need to contact Data Interchange Plc for support purposes.

6.2.2 Registration Details

This section shows the registered User Name, your Company name and the product Serial Number. These details should also be quoted if you ever need to contact Data Interchange Plc for support purposes.

6.2.3 Data Interchange Plc

This section gives the contact details for Data Interchange Plc. You will need these if you ever have to contact Data Interchange Plc for support purposes.

6.2.4 Action Buttons

These buttons cover all the actions you can perform on the BACS.IP Server GUI.

Start – On the example above, this button is disabled because BACS.IP is already started.

Stop – This button stops the BACS.IP Server. This means that the Server stops working until the **Restart** button is used. If the BACS.IP Server is stopped, none of the clients can continue working. Any users logged on will be disconnected.

Restart – This button can be used to stop and restart the BACS.IP Server. Any users logged on will be disconnected.

Hide – This button minimises the BACS.IP Server GUI, so that it can only be seen as an icon in the system tray.

Shut Down – This button stops the BACS.IP Server and closes the application down. Any users logged on will be disconnected.

Obviously, the **Stop, Restart** and **Exit** buttons should only be used by authorised personnel and only with good reason.

6.2.5 Stop server warning dialog

If you try to stop, restart or shut down the server, you will see a message box warning you that this action will disrupt other users who are currently logged on to the server. The message tells you how many users are currently logged on.

If you are still sure that you want to stop, restart or shut down the server, you should click **Yes**. If you want to wait until there are no users logged on to the server, you should click **No**.

6.2.6 Failure to connect to server warning dialog

If you try to start a client when the server is not running, you will see a message box telling you that the client has failed to connect to the server.

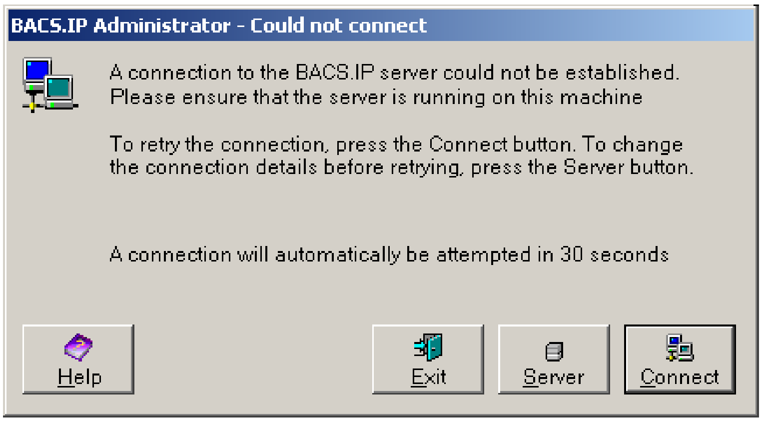
The message box will show a countdown from 30 seconds, at which point the client will attempt to connect to the server again. If you want to try and connect to the server before the countdown ends, press the **Connect** button. If the connection still cannot be made, the message box will appear again.

If you do not press the **Connect** button, the client will try to connect to the server every 30 seconds until it is successful.

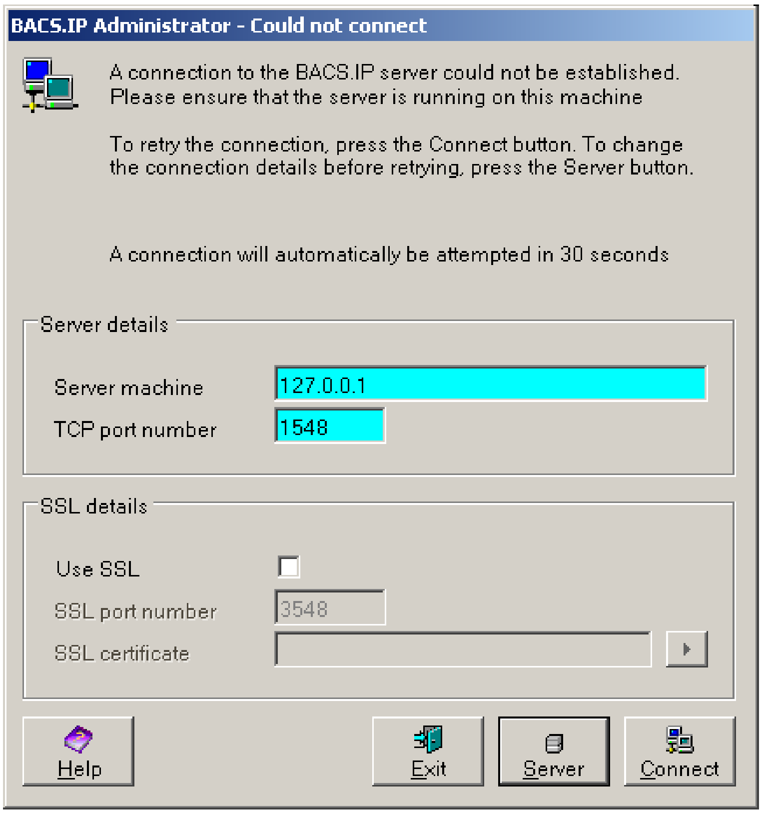
There are several possible reasons why you might be unable to connect to the server, such as:

- the server has been shut down
- the server's cable has become unplugged
- the server machine reference was mistyped when installing the client
- the server has been renamed
- the server has been moved from one machine to another
- the server and client SSL settings do not match

If you have reason to believe that the server has been renamed, or that the location of the server has changed, press the **Server** button. This will expand the dialog to show you the current information about the name and location of the server.



If you know the new location or new server name, click the Server button. You will be presented with the following display,

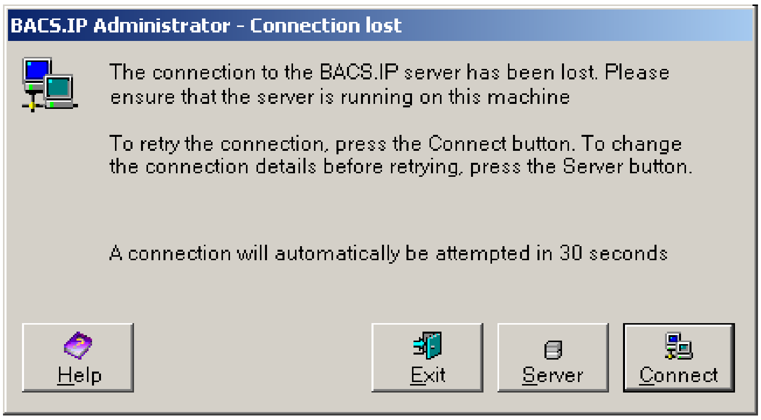


Type in the server details into the corresponding fields. If the server requires SSL authentication, then you should enter the appropriate details after ticking the Use SSL box. Now click the **Connect** button again. If you are still unable to gain a connection to the server after this, please refer to your IT Manager.

If you want to stop trying to connect, press the **Exit** button.

6.2.7 Server connection lost warning dialog

If, for whatever reason, your connection to the server is lost while you are using a client, you will see a message box telling you that the connection to the server has been lost.



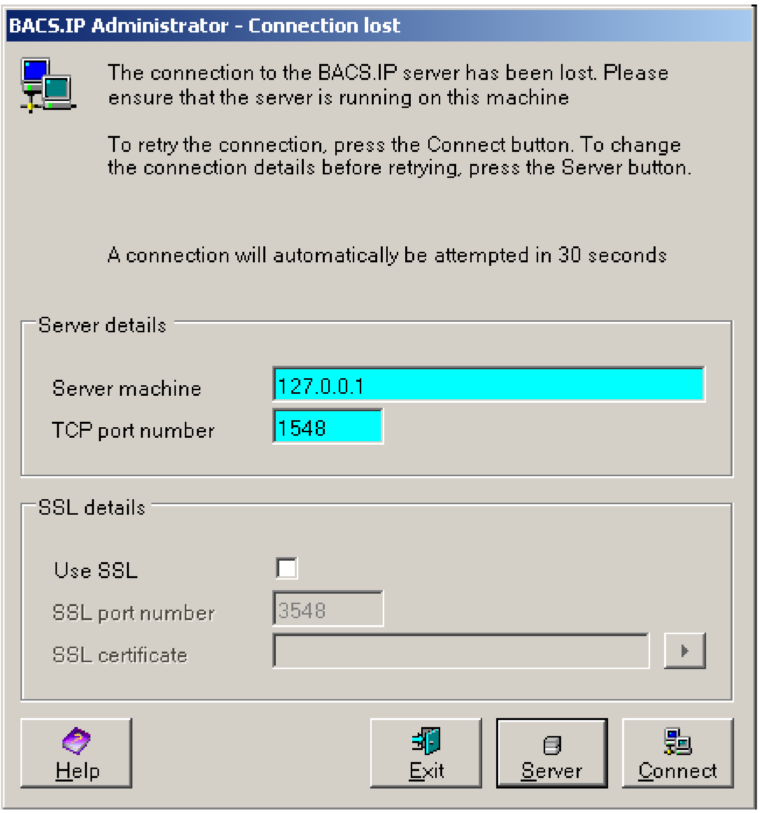
The message box will show a countdown from 30 seconds, at which point the client will attempt to connect to the server again. If you want to try and connect to the server before the countdown ends, press the **Connect** button. If the connection still cannot be made, the message box will appear again.

If you do not press the **Connect** button, the client will try to connect to the server every 30 seconds until it is successful.

There are several possible reasons why you might be unable to connect to the server, such as:

- the server has been shut down
- the server's cable has become unplugged
- your local area connection has been disabled
- the server machine reference was mistyped when installing the client
- the server has been renamed
- the server has been moved from one machine to another
- the server and client SSL settings do not match

If you have reason to believe that the server has been renamed, or that the location of the server has changed, press the **Server** button. This will expand the dialog to show you the current information about the name and location of the server.



If you know the new location or new server name, type it into the Server machine field. If necessary, type the new port number into the Port field too. If the server requires SSL authentication, then you should enter the appropriate details after ticking the Use SSL box. Now click the **Connect** button again. If you are still unable to gain a connection to the server after this, please refer to your IT Manager.

If you want to stop trying to connect, press the **Exit** button.

7 Common Features

7.1 Introduction

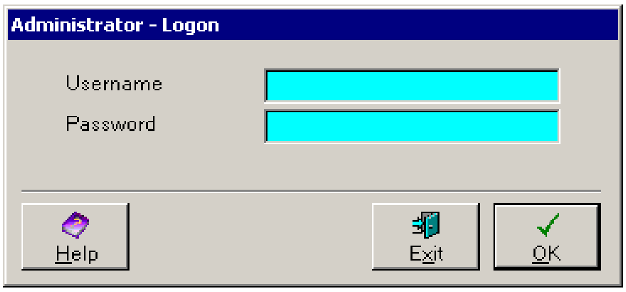
There are several features of BACS.IP that are common to both the Administrator and the Submissions application. They are described here instead of being repeated for each section.

7.1.1 Logon dialog

The first time you start the BACS.IP Administrator you will see a Logon dialog that has already been filled in with the "firsttime" Username and password. This will enable you to access the Administrator and profile your own system users.

N.B. Once you have profiled two system users with User Administrator privileges, the "firsttime" account will be disabled for security reasons.

The Logon dialog will appear whenever you try to start a BACS.IP application.

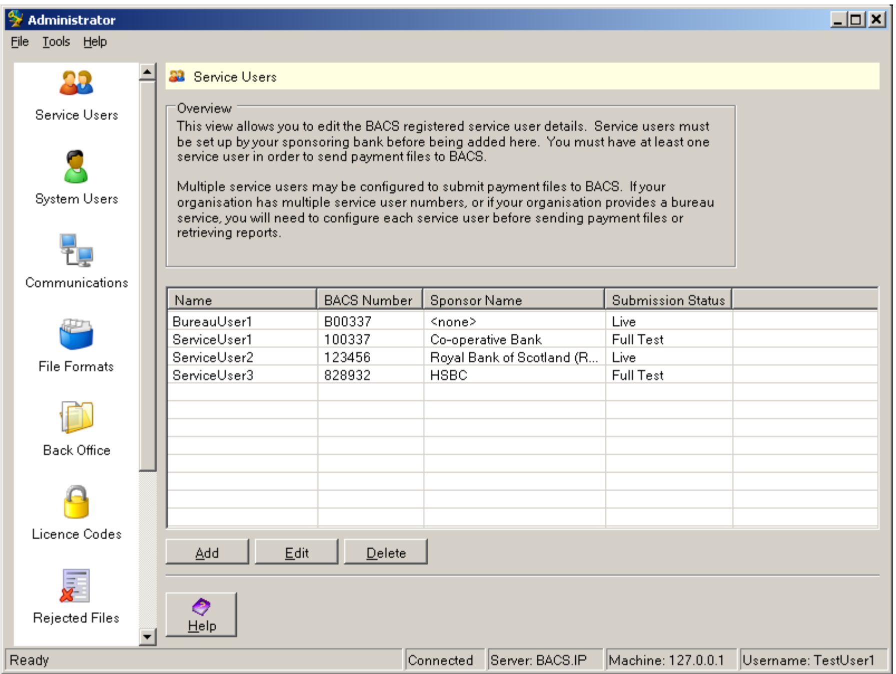


Type your username in the Username field, and your password in the Password field.

Click **OK** to proceed with the logging on.

7.1.2 Status bar

The status bar tells you about the current status of the application. It is located at the very bottom of each client. There should be 5 different status boxes. If there are fewer, it means the application is not connected to the server. You must be connected to the server in order to use the application.



- Box 1 - tells you the status of the application e.g. Ready
- Box 2 – tells you if the application is connected to or disconnected from the server. If you are connected using SSL, then a padlock will also be displayed to indicate a secure connection
- Server – tells you the name of the application running on the server to which the application is connected (in this case, BACS)
- Machine – tells you the name of the machine (computer) on which the server is installed
- Username – tells you the logon name of the user who is currently using the client

7.1.3 Help – On-line Help

Both BACS.IP applications have on-line Help, which is accessible from the menu bar by selecting **Help >> Contents**. In addition, context-sensitive help is available throughout the product wherever you see a **Help** button. Simply press the **Help** button, or the **F1** key on your keyboard, to see an explanation of the page or dialog you are currently working with.

The Help toolbar looks like the example shown below.

Each of the arrows icons will turn blue as your cursor passes over them.

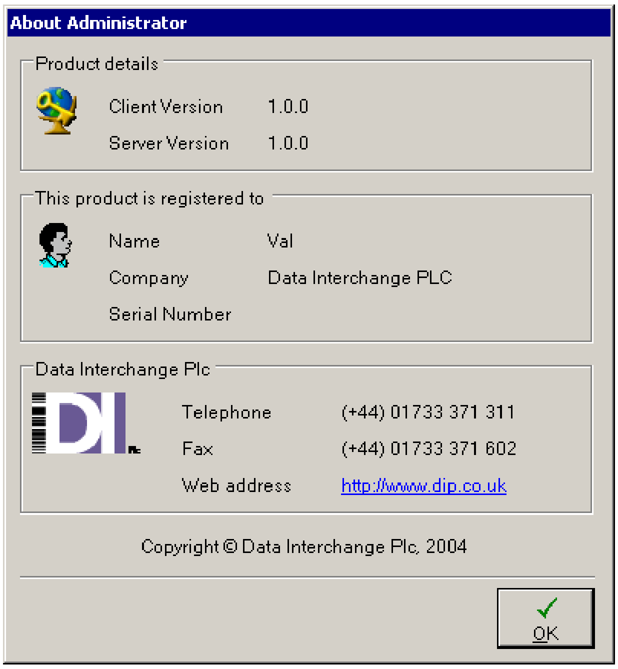
Previous and **Next** allow you to navigate sequentially through the entire Help document via the headings shown in the Contents tree view in the left-hand Help panel.

Back and **Forward** allow you to navigate through the headings that you have already visited.

The **Print** option allows you either to print the selected topic or to print the selected heading and all subtopics.

7.1.4 Help – About dialog

The menu bar of both BACS.IP applications has a Help option, which in turn has an About option. Select the **Help >> About** option to see the following dialog:



This dialog is split into three sections and resembles the Server GUI. The three sections are: Product Details, Registration Details and Data Interchange Plc.

7.1.4.1 Product Details

This section tells you the Client and Server Version numbers. These details are important and should be quoted if you ever need to contact Data Interchange Plc for support purposes.

7.1.4.2 Registration Details

This section shows the registered User Name, your Company name and the product Serial Number. These details should also be quoted if you ever need to contact Data Interchange Plc for support purposes.

7.1.4.3 Data Interchange Plc

This section gives the contact details for Data Interchange Plc. You will need these if you ever have to contact Data Interchange Plc for support purposes.

To close the dialog, click the **OK** button.

7.1.5 Help – Online Support

Both BACS.IP applications provide access to the Data Interchange Plc website, which will allow you to download the latest updates to the software. The website is accessible from the menu bar by selecting **Help >> Online Support**.

7.1.6 Help – Payment Services website

Both BACS.IP applications provide access to the BACS Payment Services website. The website is accessible from the menu bar by selecting **Help >> Payment Services website**.

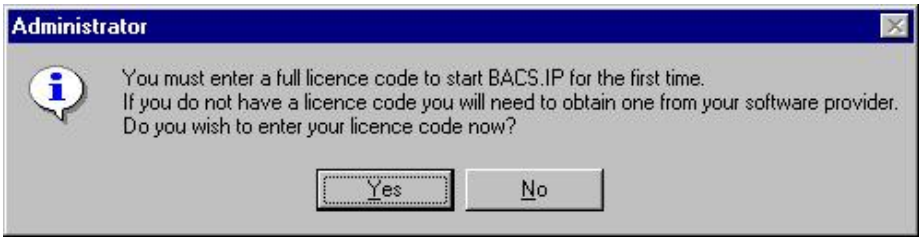
8 Configuring the software

8.1 Introduction to the Administrator

Before you can begin to use the BACS.IP software to connect to BACSTEL-IP, you must enter your licence code and then configure the software.

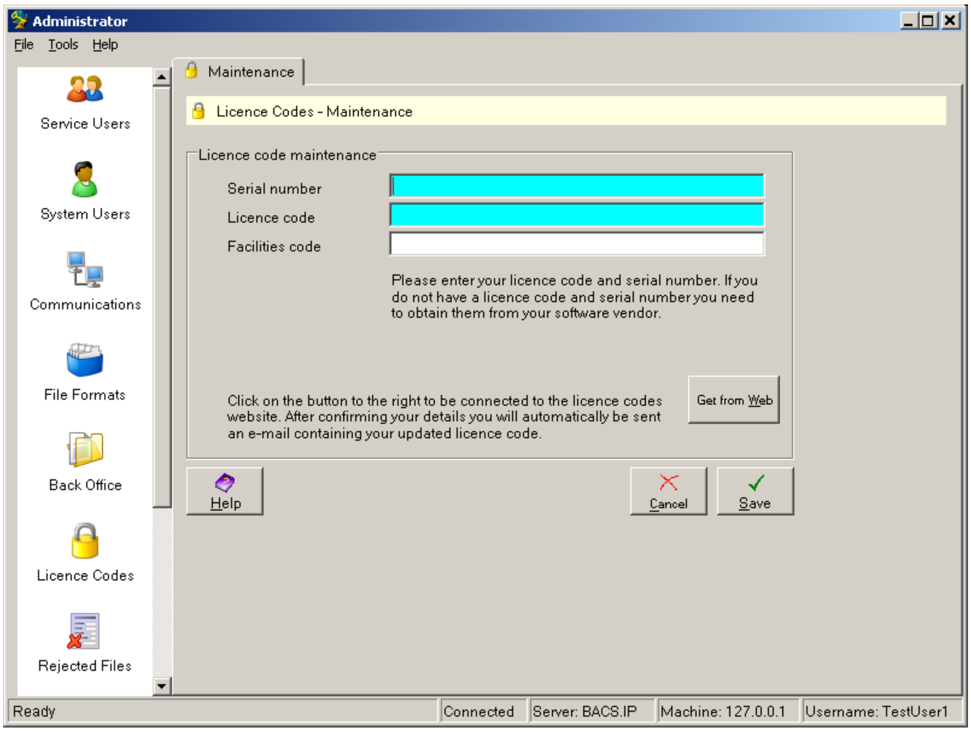
8.1.1 Licence Code

When you first try to start the Administrator, you will see the following dialog.



This tells you that you must enter a valid licence code before you can use the product, and asks if you want to enter it now. If you click **No**, the Administrator will close. You will not be able to use the Administrator until you have provided your licence code.

Click **Yes** to proceed straight to the Licence Codes page of the Administrator, shown below.



Please refer to the section entitled "Licence Codes" for full details of how to use this screen.

8.1.2 Areas to be configured

There are several areas that you will have to configure.

Start the Administrator to see all the areas that can be configured. Some areas have a default configuration and will not need to be edited unless you want to change the default settings. The following areas are configurable:

- **Service Users** – Allows the configuration of the various service users on whose behalf submissions will be transmitted to BACS. The view contains a list of service users currently in the system, and provides the ability to add/edit the service user name, number and bank. This area must be configured before using the Submissions application.

- **System Users** – Configures the various users that may log onto the software. This section also provides support for grouped privileges. Users may be added to groups, in much the same way as with a Windows user and groups environment, in order to restrict the functions that they can perform. This section allows a new user to be created and associated with a smart card (which they will subsequently use to log onto the BACS system). This area must be configured before using the Submissions application.
- **Communications** – Configures the method to be used to connect to BACSTEL-IP – either through the extranet, or using an existing internet connection (possibly a LAN). This area must be configured before using the Submissions application.
- **File Formats** – Allows you to create and manage file formats that are used to import data into the BACS.IP software. You must define a file format for each back office system from which you will import data. The only exception to this is the Standard 18 format, which has already been defined for you internally.
- **Back Office** – Allows the user to configure a number of different back office systems from which payment files will be imported. Each system may have one or more monitor directories set up. For each monitor directory, a file pattern may be supplied. This area may be left with its default configuration settings, depending on how you want your system to work.
- **Logs** – Allows you to view both the current log and archived logs. This area may be left with its default configuration settings.
- **Rejected Files** – Lists the Payment files which were not imported into the system, and, for each, provides a reason for the rejection. This area may be left with its default configuration settings.
- **File Retention** – This view allows you to configure the amount of time for which information is retained in the system. A list view will be used, allowing the user to enter a number of days after which the system will:
    - Automatically archive sent submissions
    - Delete archived submissions
    - Delete BACS advices

This area may be left with its default configuration settings.

- **Server Settings** – This view allows you to configure the connection settings used by the server. You can specify TCP, SSL or both and configure the ports that are to be used. By default TCP is used.

Please note that, throughout the Administrator, any mandatory fields are coloured blue. The screen or dialog will not let you save your changes until you have provided values in these fields.

8.1.3 Terminology

This section deals with terms used by the BACSTEL-IP system, which you will need to know in order to use the BACS.IP software.

Service User – A business entity possessing a set of originating bank accounts, which submits or originates payments instructions to BACS and/or collects reports. A service user is given an identification number from BACS.

System User – An individual at a Service User who is authorised to use the BACS.IP software. Each system user must be given a password in order to logon to the BACS.IP software. If he is also associated with a smart card and given the appropriate privileges, he will also be able to access the BACSTEL-IP service. If a system user can access the BACSTEL-IP service, he is also referred to as a Contact.

Organisation – A company or group of companies that submit to BACS using one or more Service Users.

Bureau – An organisation that is authorised to submit files on behalf of Service Users.

Sponsor – A bank or building society that is a member of the BACS sponsoring scheme. In order to use BACS services, each Service User must be sponsored by one of these sponsors. Any reference to a bank in the BACS.IP software or in this document implies a sponsor.

PKI – Stands for Public Key Infrastructure. PKI uses digital keys and digital certificates to provide security for electronic communications and data transfer. This level of security means that BACS can be sure of the origin of any communication, and that any data transferred cannot be tampered with.

For any other definitions, please refer to the Glossary in the Help file.

8.1.4 Security considerations

For each Service User, one or more system users has to be defined, who will be permitted to use the BACS.IP software. However, not all users should be given the same level of permission. Some users should be allowed to access the BACSTEL-IP service, other users should be given permission to administer the Administrator, while others should be restricted to less security-sensitive tasks.

You should consider carefully how you allocate permissions before you configure the System Users section of BACS.IP. There are currently eight different Security Groups defined within the System User section of the BACS.IP Administrator. They have been designed with flexibility in mind, so they should cover all your security group requirements.

8.1.5 Business filter

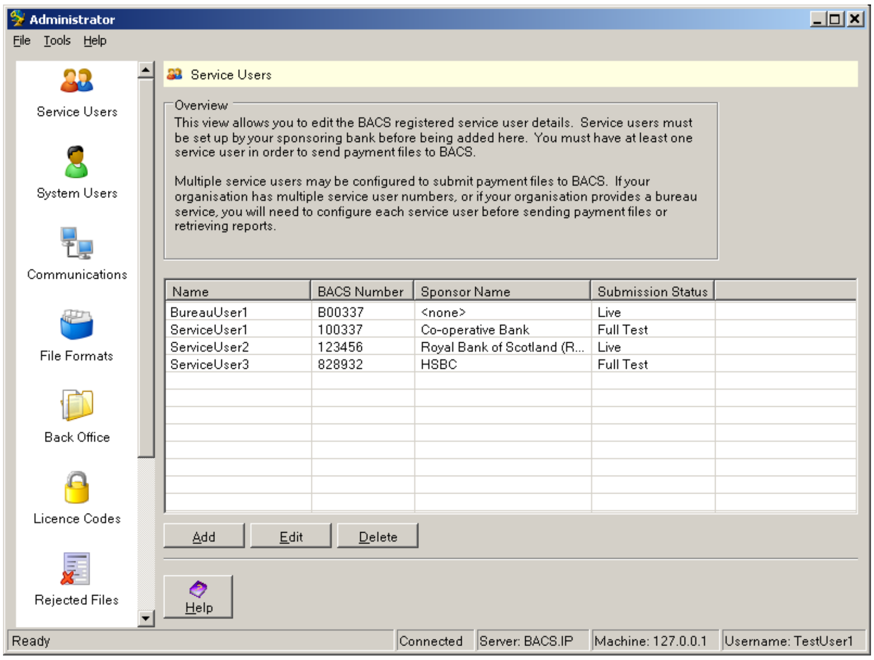
Once you have allocated each of your system users to one or more service users and to one or more security groups appropriate to their responsibilities, another security feature of BACS.IP will come into effect, namely the business filter.

The business filter feature restricts not only what each individual system user can do within the BACS.IP software, but also restricts what he can see. For example, if you have associated a system user with a single service user, when he is using the Submissions application he will only be able to see references to that service user. Thus, on the Reports page, he will only see reports relating to submissions created by that service user. Likewise, on the Live and Archived Submissions pages, he will only be able to see submissions created by that service user.

To take another example, if you have set up a system user who can only view and/or process BACS reports, when he uses the Submissions application he will only be able to see the Reports page tab. He, too, will only be able to see reports relating to submissions created by whichever service user(s) he has been associated with.

8.2 Service User Configuration

Click on the Service Users icon to see the Service Users section of the Administrator.



This section allows you to configure the various service users on whose behalf submissions will be transmitted to BACS. Once you have added one or more service users, the view will contain a list of service users currently in the system, and provide the ability to add further service users or edit existing service user details, and details of their originating bank accounts.

Service user accounts must be set up by your bank before being added here. You must have at least one service user account set up in order to send payment files to BACS.

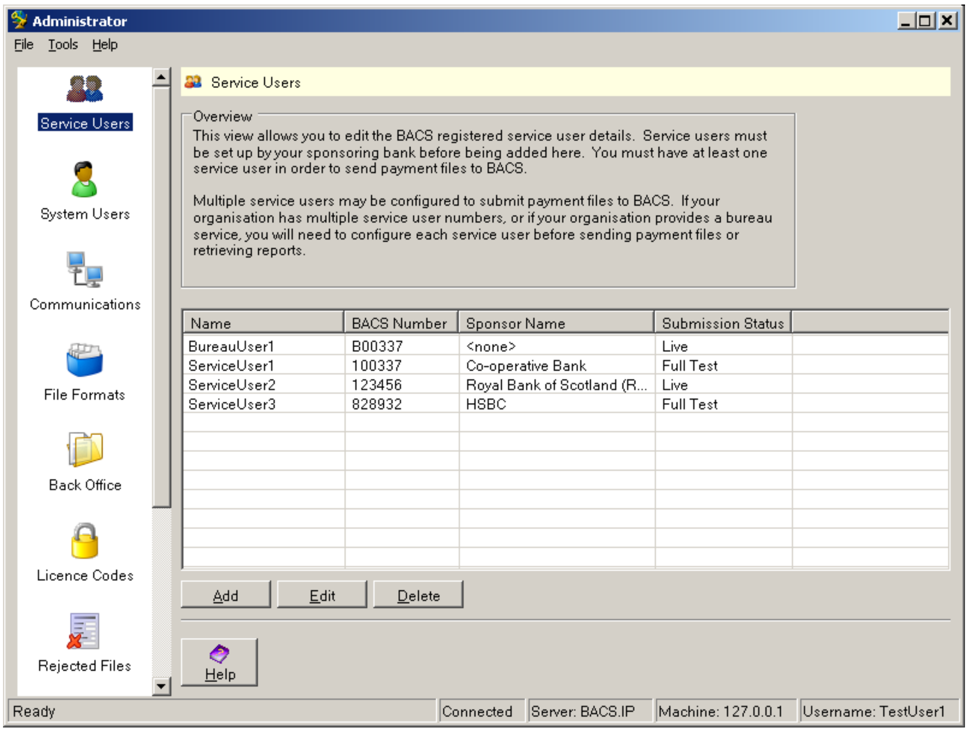
Multiple service users may be set up to submit payment files to BACS. If your organisation has multiple service user accounts, or if your organisation provides a bureau service, you will need to configure each service user before you send payment files on their behalf.

The Service Users section has three buttons: **Add**, **Edit** and **Delete**.

8.2.1 Adding a service user

Before you can send payment files to BACS, you must add at least one service user.

From the Service Users screen, click the **Add** button. This will bring up the Service user details and accounts screen, shown below.



This screen requires you to provide service user details and, optionally, service user bank account details. The fields and their required contents are described below.

Service user details – Name

Type in here the name of the service user you want to add. This should be the name of a business entity, such as a company name or a company division.

Service user details – BACS number

Type in here the BACS number assigned to this service user. You will notice that, if you type a bureau number in this field (i.e. one that begins with the letter 'B'), all fields following the Submission status will become greyed out. This is because no other fields on this screen are applicable to bureaux.

Service user details – Submission status

Use the dropdown list to select the appropriate submission status for this service user. The choices are:

- Full Test
- Live
- Structural Test

The lowest level of testing is the Structural Test, under which submissions are validated for the BACS three-day service.

At the next level of testing is the Full Test, under which format validation takes place. This level does all the testing that would occur for a live file, but stops short of sending files on to the bank.

The highest submission status is Live, which means you can send live payment files to BACS.

Service user details – Sponsoring bank name

Use the dropdown list to select the appropriate bank for this service user.

Service user details – User Group

If you wish to group one or more Service Users together, you should enter a two-digit code into this box. This code will be outputted when you export a submission summary to a CSV file and will allow you to sort the data by service user groups once imported to a spreadsheet application. If you do not wish to group your service users then leave this field blank.

Options – Create submissions on import

Select this checkbox if you want payment files associated with this service user to create submissions as soon as they are imported. The result of this will be that each submission will contain one payment file only.

Another result is that the submission created in this way will appear immediately on the Active Submissions page of the Submissions application, so that you will not normally have to use the Payment Files page at all.

If you do not select this checkbox, payment files will appear instead on the Payment Files page of the Submissions application. You will then have to create a submission from them manually.

If you are a direct submitter (i.e. not a bureau), you should tick this box.

Options – Support euro transactions

Select this checkbox if you want the ability to handle payment files in Euros as well as sterling. If you do not select this checkbox you will only be able to handle sterling transactions.

Options – Payment files may be signed

Select this checkbox if you want to allow this service user to sign payment files using the Validate and Sign option. This need only be done if your bank has stipulated that the service user must sign payment files.

Service user details – Buttons

The following buttons are used on this screen:

Help

Press the **Help** button to see the on-line Help for this section.

Cancel

Press the **Cancel** button to leave this dialog without saving any changes.

Save

Press the **Save** button to leave this dialog and save any changes. This button will not be enabled unless you have made any changes to this dialog or a connected dialog.

Pressing the **Save** button will return you to the Service Users Overview screen, where you can now add further service users, or edit or delete existing service users.

8.2.1.1 Originating bank accounts

This section of the page displays a list of originating bank accounts, giving their name, account number and sort code.

You will notice, if you are adding or editing service user details for a bureau, that this section of the page is greyed out. This is because originating bank account details are not applicable to a bureau service user.

If these fields are not greyed out, and if this service user does not use the Standard 18 file format, you must provide details of at least one originating bank account. If you do not, you will not be able to complete the Back Office configuration.

There are three buttons that may be used on this part of the screen:

Add

Use the **Add** button to add a new bank account for this service user.

Edit

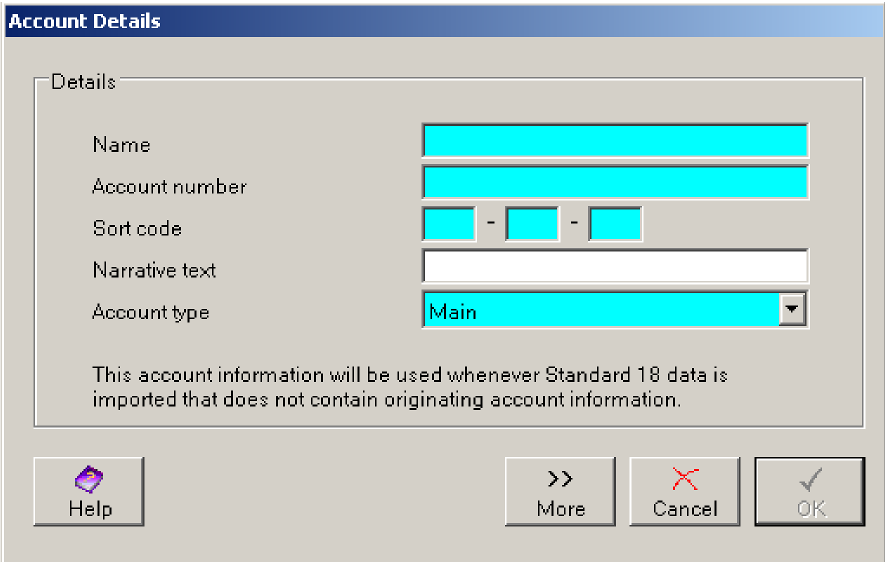
Use the **Edit** button to edit an existing bank account for this service user.

Delete

Use the **Delete** button to delete an existing bank account for this service user.

8.2.1.1.1 Adding an originating bank account

Use the **Add** button to add a bank account to be associated with this service user. This will bring up the Account Details dialog, shown below.



Details – Name

Type in here the name of the account e.g. Company Current Account.

This name should be something that uniquely describes the account, so that you can easily recognise it in a list of other accounts.

Details – Account number

Type in here the number of the account.

Details – Sort code

Type the account sort code into the three boxes provided. The cursor will automatically move into the next box when you have typed two numbers in.

Details – Narrative text

Type the narrative text associated with this account. When you import Standard 18 data, the narrative text field from CONTRA records will be used to populate corresponding records on the payment files that BACS.IP generates. Specify a value to be used in that field where no value was included in the imported file, or the imported file type is not Standard 18.

Details – Account type

Use the dropdown arrow to select the type of account. You can choose between Main (Default), Main (Secondary) and Individual. If creating the first account for a service user, then Main (Default) will be selected by default. Any subsequent accounts for that service user will default to Individual. However, you can change the account type by simply clicking the combo box and choosing the account type you desire.

Main (Default)

Each Service User must have one Main (Default) account. The details of this account get substituted into any imported Standard 18 payment files that do not have originating account details.

Main (Secondary)

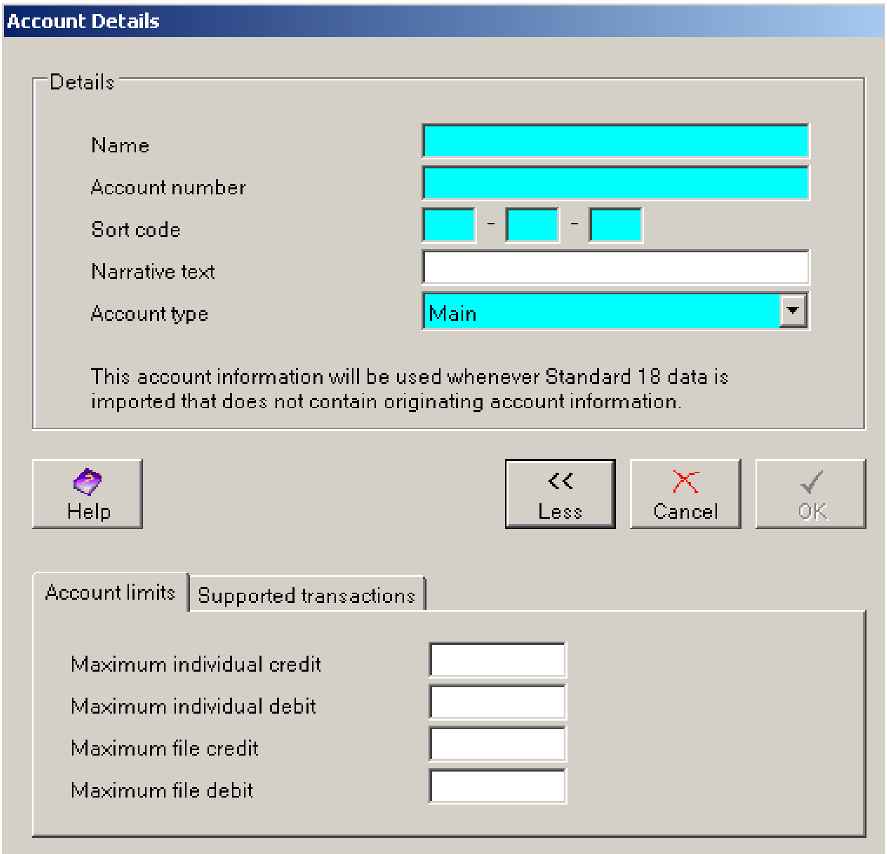
This account type is a special case and should only be used if your sponsoring bank does not allow individual accounts. The account is treated as an individual account, so a service user can profile multiple Main (Secondary) accounts. However, when the submission is sent to BACS for processing, the account type is transmitted as a main account rather than individual. This option may prevent warning messages about invalid account details.

Individual

A service user can have a number of Individual accounts. These are additional accounts which should be profiled if more than one bank account is being used by the service user. Payment files and submissions can be originated from individual accounts in the same way as Main accounts.

Account Details – More button

Click the **More** button if you want to add, view or edit details of account limits and supported transactions for this account. The current dialog will then change to show two page tabs at the bottom.



Account limits

This page tab allows you to specify the account limits for this account. All values should be in pounds sterling.

If you choose not to enter any values in these four fields, no credit or debit levels will be set.

These account limits are limits placed on each file. The file credit limit is the upper boundary placed on the sum of all credit transactions in a file. If this limit is exceeded in any one file, then the user will be notified when the payment file is validated.

Supported transactions

This page tab displays a list of about twenty different types of transaction that are supported by BACS. By default all of them are selected, meaning that this account will be authorised to handle any of the supported transactions. You may de-select any that you do not wish to be supported by this originating bank account.

Help

Press the **Help** button to see the on-line Help for this section.

Cancel

Press the **Cancel** button to leave this dialog without saving any changes.

OK

Press the **OK** button to leave this dialog and save any changes. This button will not be enabled unless you have made any changes to the dialog.

8.2.1.1.2 Editing a service user bank account

Highlight one of the entries in the list of bank accounts and click the **Edit** button to edit an existing bank account. This will bring up the Account Details dialog, showing the details for the selected service user. The fields and their contents are the same as when adding a service user bank account. For details of the contents required, please refer to the section entitled "Adding an originating bank account".

8.2.2 Editing a service user

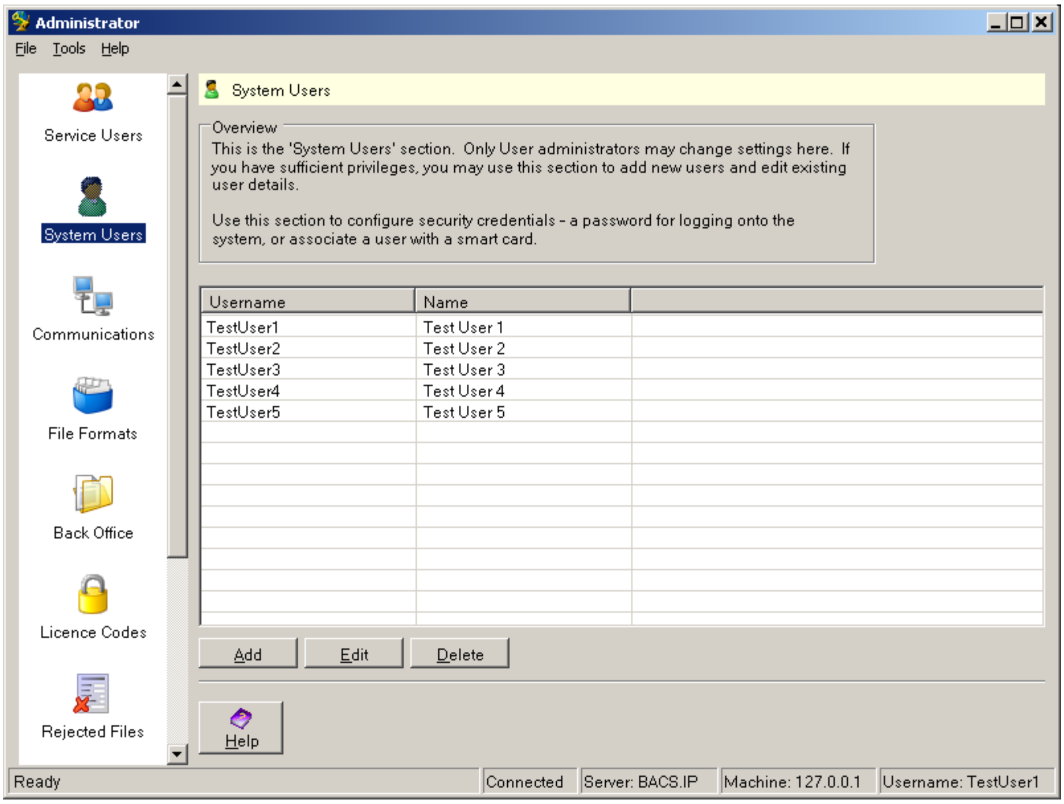
To edit a service user, select one of the service users from the list and click the **Edit** button. For further details of the fields and their contents, please refer to the section entitled "Adding a service user".

8.2.3 Deleting a service user

To delete a service user, highlight the service user you want to delete and click the **Delete** button. You will see a message box asking if you are sure you want to delete this service user, which will have the effect of removing all information and accounts relating to this system user. Click **Yes** to continue with the delete action, or **No** to keep the service user's details.

8.3 System User Configuration

Click on the System Users icon to see the System Users section of the Administrator.



This section can only be edited by User administrators. If you have User administrator privileges, you may use this section to add new users and edit existing users' details. You must add at least one service user before you can add a system user.

BACS require at least two primary security contacts to be defined for each service user. This requirement is designed to prevent the situation occurring where a single primary security contact is unavailable to handle security issues. These security contacts must be set up with the necessary security privileges which will enable them to connect with BACS.

This section allows you to configure the various users who have permission to log onto the BACS.IP software. Remember that the BACS.IP software comprises two applications: the Administrator and the Submissions application. You should normally restrict each user to just one of these, since the person(s) responsible for the administration of the software will not normally be the same person(s) responsible for dealing with the BACS side of things, and vice versa.

This section also provides support for grouped privileges. Users may be added to groups, in much the same way as with a Windows user and groups environment, in order to restrict the functions that they can perform.

All users of the BACS.IP software require a password in order to logon and use the software.

Any user who needs to logon to BACSTEL-IP will require both a password and a smart card.

This section is where each user is given a password and, if necessary, he can also be associated with a smart card.

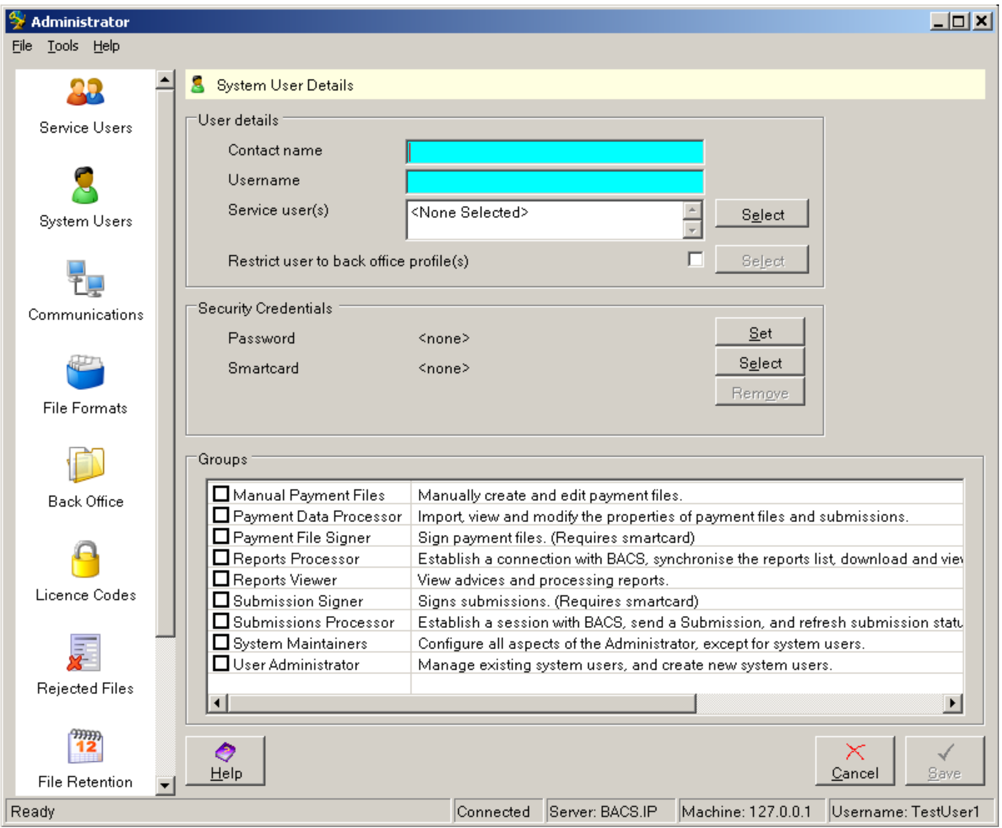
Each new system user you add may be associated with one or more existing service users. If the system user will not be issued with a smart card, he does not need to be associated with a service user.

The System Users section has three buttons: **Add**, **Edit**, and **Delete**.

8.3.1 Adding a system user

Before you can use the Submissions application, you must add at least one system user.

From the System Users screen, click the **Add** button. This will bring up the System user details screen, shown below.



This screen requires you to provide system user details. The fields and their required contents are described below.

User details – Contact name

Type in here the name of the contact you want to add. This should be the name of a person who is going to use the software. The contact name must contain at least 5 characters, up to a maximum of 25 characters.

User details – Username

Type in here the username of the contact. This name will be used to log onto the software and must therefore be unique.

There are a few rules about the characters that may be used in the username:

The username must contain at least 5 characters, up to a maximum of 25 characters

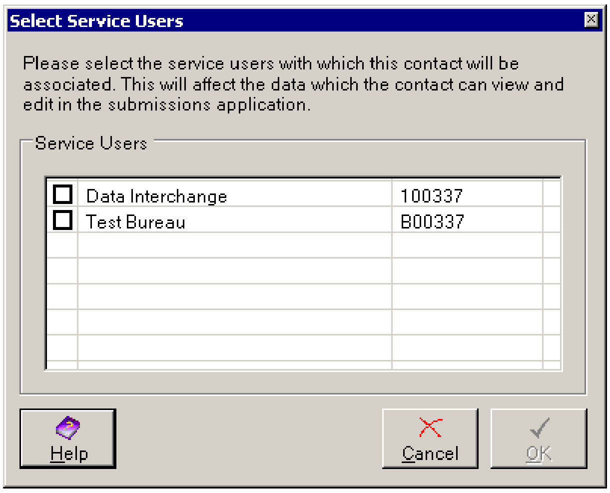
The username must be alphanumeric i.e. it may only include numbers and letters and the underscore character (no punctuation and no spaces are permitted)

The username is not case sensitive i.e. you may use lower case or upper case letters whenever you type the name

User details – Service user(s)

For a new system user, this field will display the text "<None selected>". You will need to select a service user if this system user is going to perform any function that requires use of a smart card in the Submissions application.

Use the **Select** button in the User details section to bring up the Select Service Users dialog.



Tick the checkbox of the service user(s) with which you want this system user to be associated. Click **OK** to save your changes and return to the System user details screen, or click **Cancel** to return without saving the changes.

If you clicked **OK**, this will associate the system user with the selected service user(s), allowing him to perform permitted actions on their behalf.

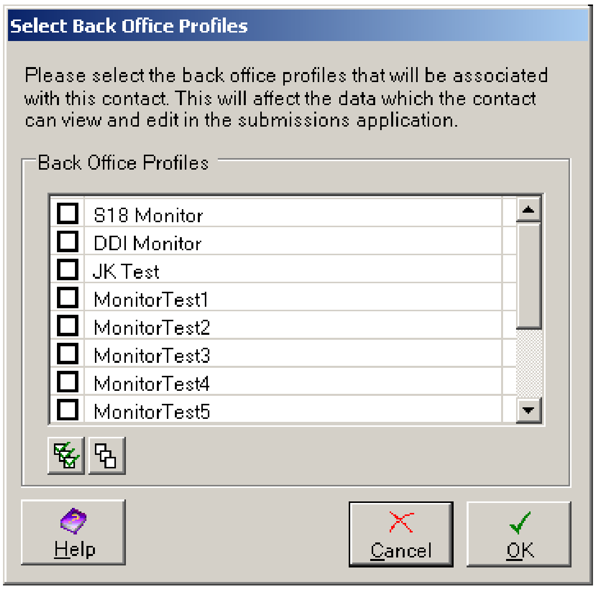
Returning to the System user details screen, you will see the selected service user(s) are now displayed in a list.

You can add or remove service users from the list if you wish. To do this, click the **Select** button in the User details section to bring up the Select Service Users dialog, remove the tick from the checkbox of the service user you no longer want to associate with this system user, and click **OK**.

User details – Restrict user to back office profile(s)

It is possible to restrict a system user so they can only see data that has been imported from specific back office profiles. This might be the case if you run two payrolls under the same service user / BACS number and do not wish the system users to see the details of the payroll they are not running.

By default this option is set to false, but ticking the box enables the **Select** button. You will be presented with the following dialog if you click this button,



The list is populated with all the back office profiles in the system and you restrict the system user by ticking the check boxes next to the back office profile(s) you wish this user to have access too.

Click **OK** to save your changes and return to the system user details screen, or click **Cancel** to return without saving the changes

You can add or remove back office profiles from the list if you wish. To do this, click the **Select** button in the User details section to bring up the Select Back Office Profiles dialog, add or remove the tick from the checkboxes of the profiles you wish to change and click **OK**.

If you wish you system user to have access to all the back office profiles in the system, then ensure the 'Restrict user to back office profile(s)' checkbox is not ticked.

8.3.1.1 Security credentials

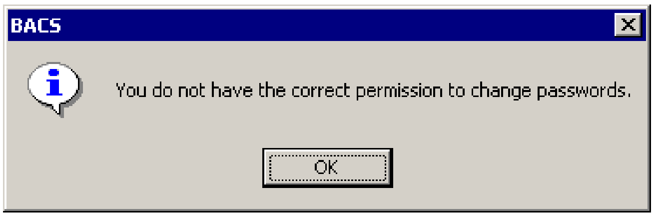
This section of the page allows a User administrator to set or reset a contact's password, to select a smart card to be associated with this contact, or to remove the smart card association from the user.

All system users are required to have a password. System users who connect to the BACSTEL-IP system are also required to be associated with a smart card.

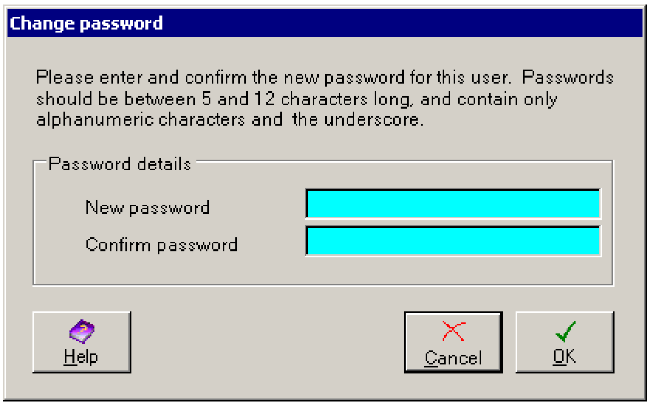
Reset

Click the **Reset** button to set or reset the password for this user. If you do not have the necessary permission to do this, you will see the message box shown below.

Click **OK** to return to the System user details screen. You will need to be granted higher privileges before you can reset passwords. Alternatively, find someone with the necessary permission and ask them to do it.



Otherwise, you will see the following dialog:



On this dialog you must type in the new password in the New password field, then type it again in the Confirm password field.

There are a few rules about the characters that may be used in the password:

The password must contain at least 5 characters, up to a maximum of 12 characters

The password must be alphanumeric i.e. it may only include numbers and letters and the underscore character (no punctuation and no spaces are permitted)

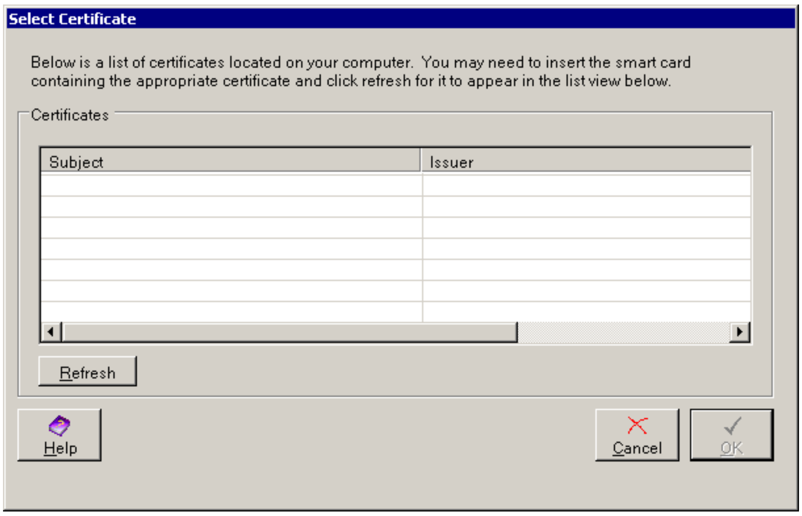
The password is case sensitive.

Click **OK** to save the password and return to the System User details screen, or click **Cancel** to return to the System User details screen without saving the password.

Select

The **Select** button is only to be used for those users who, because of the functions they will perform, need to be able to logon to BACSTEL-IP.

Click the **Select** button in order to associate this user with a particular smart card. This will bring up the Select Certificate dialog, as shown below.



This dialog displays a list of all certificates located on your computer. If the certificate you are looking for cannot be found in the list, or if the list is empty, you may need to insert the smart card containing the certificate and click the **Refresh** button before it will appear.

To select a certificate, highlight the appropriate line in the list and press the **OK** button. This will return you to the System user details screen, where you will now see the name of the selected certificate in the Security Credentials section.

Remove

Click the **Remove** button in order to remove the associated certificate from this user. This will mean that he is no longer able to carry out functions which require the use of a smart card, such as logging onto BACSTEL-IP and signing payment files and/or submissions.

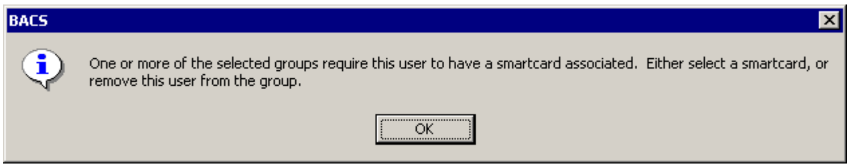
8.3.1.2 Groups

You must now choose one or more Groups for the system user to belong to. This will determine the level of privileges assigned to the user.

There are currently eight Groups to choose from. They are listed in the table below, together with the actions they are allowed to perform and whether they require a smart card to perform their tasks. The table also shows which application the group has access to, and whether a service user association is required:

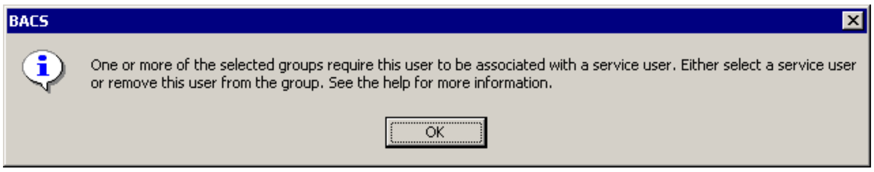
Group Name	Description	Smart card required?	Service User association?	Application access
Manual Payment Files	Manually create and edit payment files	No	Yes	Submissions application
Payment data processor	Import, view and modify the properties of payment files and submissions	No	No	Submissions application
Payment file signer	Sign payment files	Yes	Yes	Submissions application
Reports processor	Establish a connection with BACS, synchronise the reports list, download and view reports	Yes	Yes	Submissions application
Reports viewer	View advices and processing reports	No	No	Submissions application
Submission signer	Sign submissions	Yes	Yes	Submissions application
Submissions processor	Establish a session with BACS, send a submission and refresh submission status	Yes	Yes	Submissions application
System maintainer	Configure all aspects of the Administrator, except for system users	No	No	Administrator
User administrator	Manage existing system users and create new system users	No	No	Administrator

As the table shows, some of the groups require the use of a smart card. If you select any of these groups for a user, you must select a smart card to associate with the user before clicking the **Save** button. Otherwise you will see the following message box:



Either select a smart card to associate with the user or uncheck any Group tickboxes that require the use of a smart card.

In addition, some of the groups require the system user to be associated with a service user. If you select any of these groups for a user, you must select at least one of the available service users to associate him with before clicking the **Save** button. Otherwise you will see the following message box:



Either select a service user to associate with the user or uncheck any Group tickboxes that require him to be associated with a service user.

When you have finished assigning the user to one or more groups, press **Save** to save your changes, or **Cancel** to leave this screen without saving your changes.

This will return you to the System users Overview section, where, if you saved your changes, you will now see the new user in the list.

8.3.2 Editing a system user

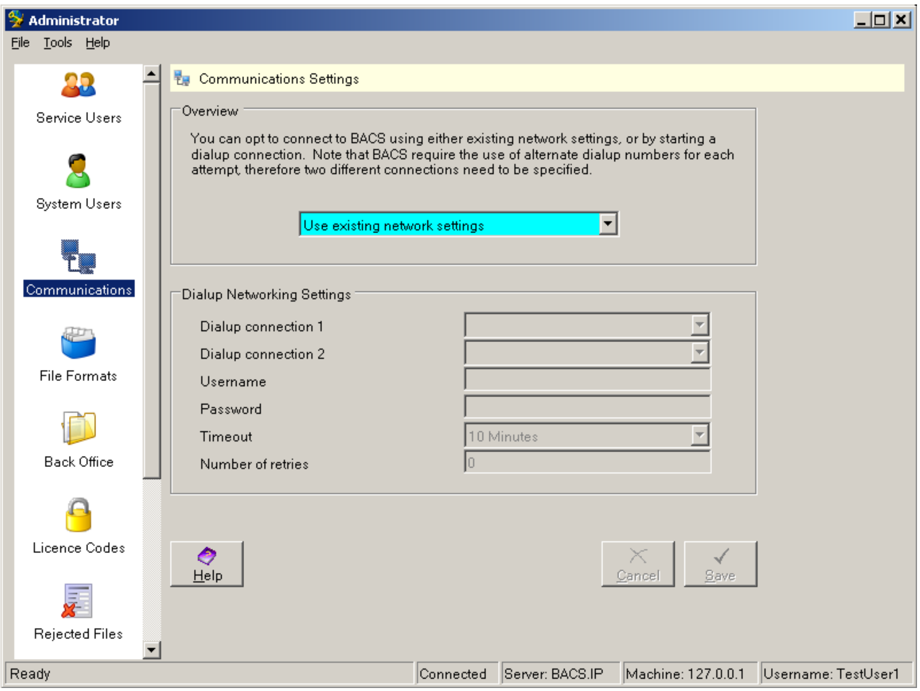
Once you have added a system user, you can edit their details if necessary. To edit a system user's details, highlight the appropriate entry in the list and click the **Edit** button. This will bring up the system user details screen. For details of the fields and buttons in this section, please refer to the section entitled "Adding a system user".

8.3.3 Deleting a system user

To delete a system user, highlight the system user you want to delete and click the **Delete** button. You will see a message box asking if you are sure you want to delete this system user, which will have the effect of removing all information about this system user. Click **Yes** to continue with the delete action, or **No** to keep the system user's details.

8.4 Communications Configuration

Click on the Communications icon to see the Communications section of the Administrator.

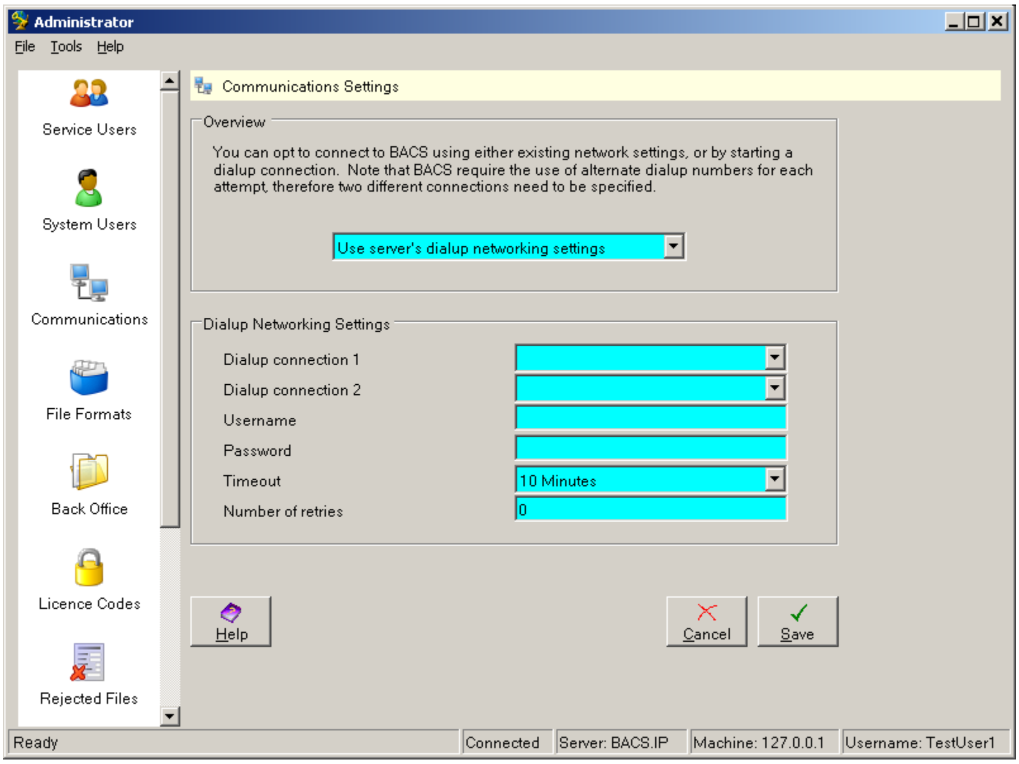


This section of the Administrator allows you to configure your communications settings for connection to BACS.

You can use either existing network settings or use your server's dialup connections. If you choose to use existing network settings, this page will remain disabled and there is no configuration to be done here.

If you choose to use the server's dialup networking settings, the dialup connections must be configured beforehand using Windows Network and Dial-up Connections.

Having configured the dialup connections, select this option using the dropdown arrow to the right of the field in the Overview section. The other fields on the page will then become enabled, as shown below.



The fields and their usage are described below.

Dialup connection 1

This field lists all the dialup connections available on the server to which you are connected. Use the dropdown arrow to select a suitable connection, being aware that not all available connections may be suitable.

Dialup connection 2

As for Dialup connection 1.

BACS require the use of alternate dialup numbers for each connection attempt, so two different connections must be specified.

Username

During the BACSTEL-IP registration process, an Extranet User ID is generated based on the Service User name and the Service User number. This ID is used by BACS to generate a random password. The Extranet ID and password are included in the “welcome” e-mail you received from BACS.

Type the Extranet ID in this field.

Password

Type the Extranet password in this field.

See **Username** above for full details.

Timeout

Use the dropdown arrow alongside this field to select an appropriate timeout value for your system. The timeout will come into effect if you are connected to BACS but have not used the connection to send or receive anything for the selected length of time. The default timeout value is 10 minutes, meaning that the communication session with BACS will automatically be disconnected after 10 minutes of inaction.

Number of retries

Type in this field a numeric value for the number of attempts you want to make to connect to BACS before giving up. For example, if you were to type 5 in this field, the software will try up to five times to make a connection. If a connection has not been made after five attempts, the software will stop trying, until you manually try to make another connection by clicking the **Logon** button or selecting an action which instigates a connection attempt, such as Send Submission or Synchronise Reports. The default value for the number of retries is 1, meaning that only one attempt will be made to connect to BACS for each time you initiate a connection.

Cancel

The **Cancel** button will not be enabled until you have made some changes on this page.

Click the **Cancel** button if you have made changes on this page that you do not want to save.

Save

The **Save** button will not be enabled until you have made some changes on this page.

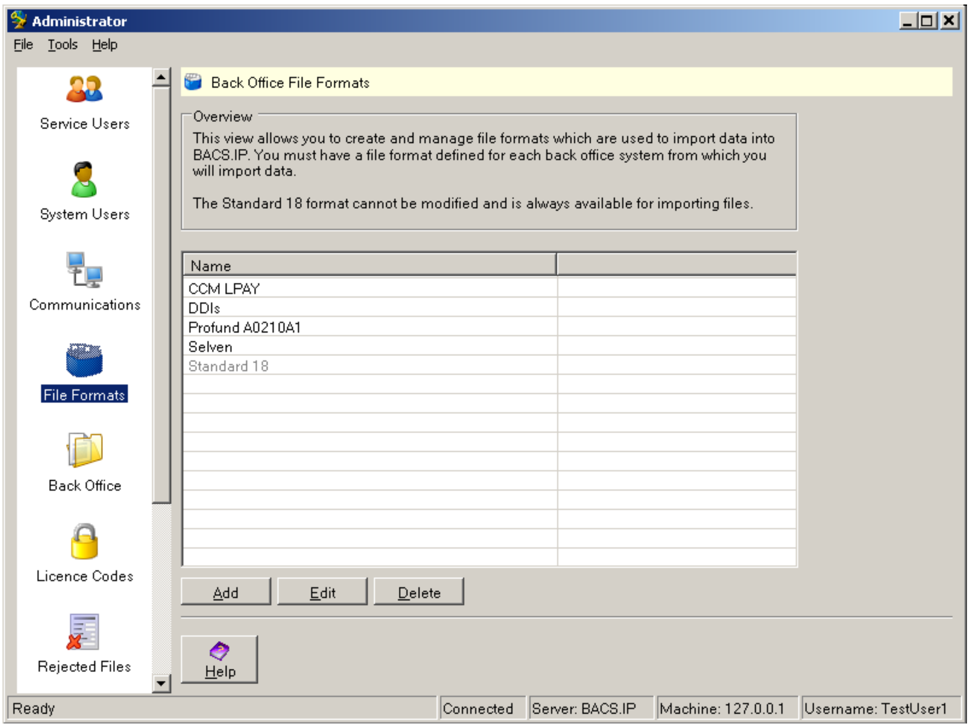
Click the **Save** button to save any changes that you have made.

8.5 File Formats Configuration

Click on the File Formats icon to see the Back Office File Formats section of the Administrator.

This section of the Administrator allows you to create and manage file formats that are used to import data into the BACS.IP system. You must define a file format for each back office system from which you will import data. The only exception to this is the Standard 18 file format, which is already defined for you internally and cannot be edited. In addition, we have provided several other file formats which may be edited if necessary.

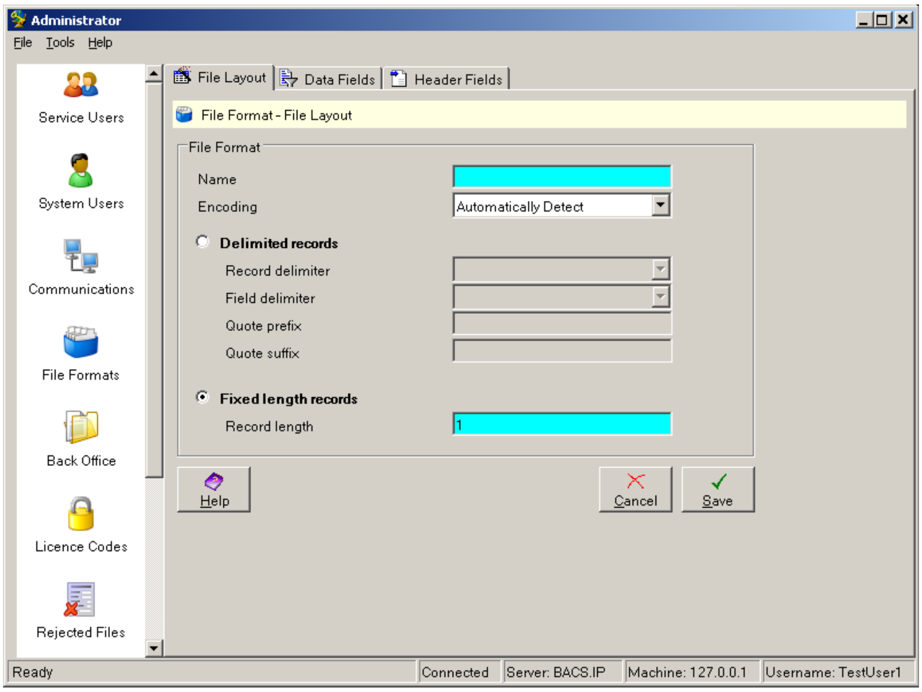
If you are using formats other than Standard 18, you should edit or check this section before you edit the Back Office section, so that the file formats defined here can be selected when you define import profiles in the Back Office section.



There are three buttons on this page: **Add**, **Edit** and **Delete**.

8.5.1 Adding a new file format

To add a new file format, click the **Add** button on this screen. This will bring up the File Layout Settings dialog, shown below.



This dialog consists of three pages – File Layout, Data Fields and Header Fields.

The File Layout page requires you to choose a name for the file format and to specify what type of records are in the file. You need to know whether the records are delimited or fixed length.

The Data Fields page allows you to specify the exact location of fields in the file.

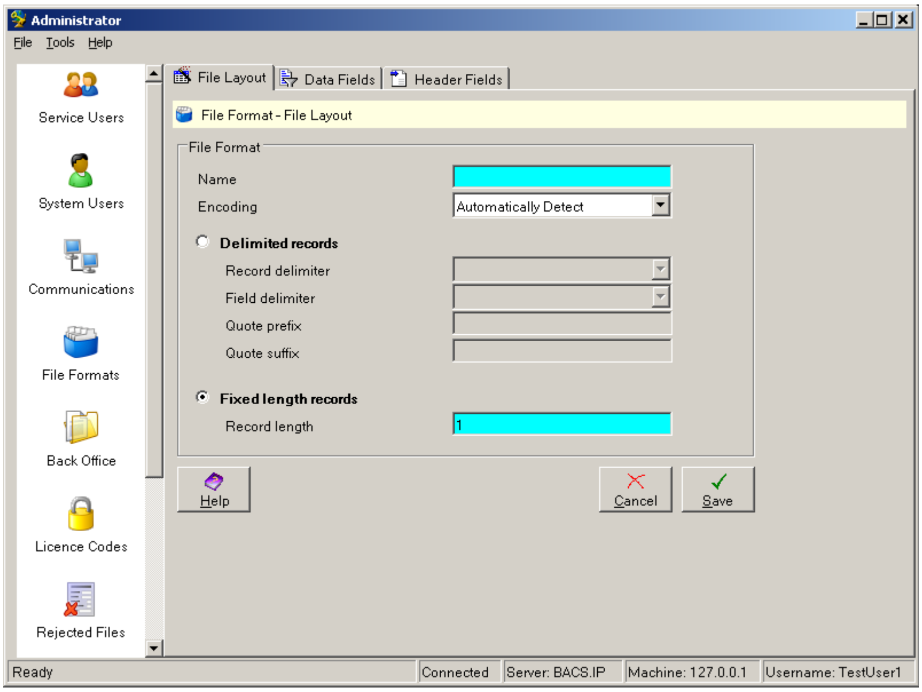
The Header Fields page allows you to specify the location and format of header record data.

Delimited or fixed length records?

The end of each delimited record is indicated by a character, or some other device, that can be recognised by the software, such as a tab or a carriage return/line feed. This is not required by a fixed length record, since the software knows the length of each record. Because of the different requirements of the two record types, the fields required for each are different.

8.5.1.1 File Layout

The fields on this page, shown below, are as follows:



Name

Type in this field a name for the file format you are about to define.

Encoding

Using the dropdown arrow, select the appropriate encoding for this file format. Most users should find that selecting the Automatically Detect option will work fine. However, if you experience any problems importing files, try using a more specific encoding type.

Delimited records

Select the Delimited Records radio button to enable the Delimited Records fields.

The fields in this section are as follows:

Record delimiter – select the appropriate delimiter from the list, or type in the appropriate character if it is not listed.

Field delimiter – select the appropriate delimiter from the list, or type in the appropriate character if it is not listed. For example, for comma-separated value files, type a comma in this field.

Quote prefix – for fields whose start and end are distinguished by a character either side of them, such as quotes or parentheses, this field allows you to specify the character that appears at the start of the field.

Quote suffix – for fields whose start and end are distinguished by a character either side of them, such as quotes or parentheses, this field allows you to specify the character that appears at the end of the field.

Fixed length records

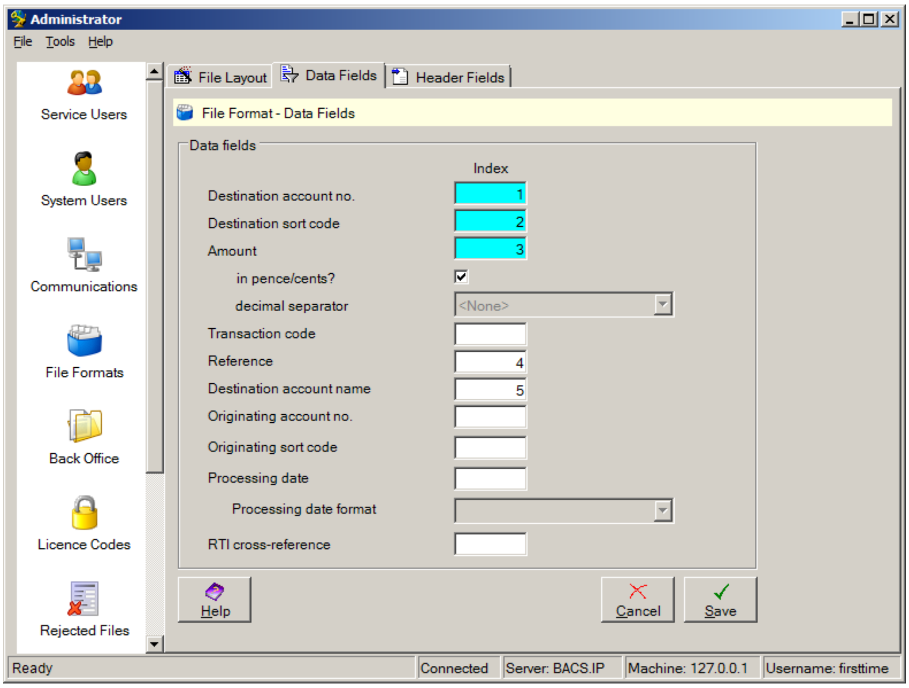
Select the Fixed Length Records radio button to enable the Fixed Length Records fields.

The fields in this section are as follows:

Record length – type in here the length of the fixed length records in this file format (a numeric value).

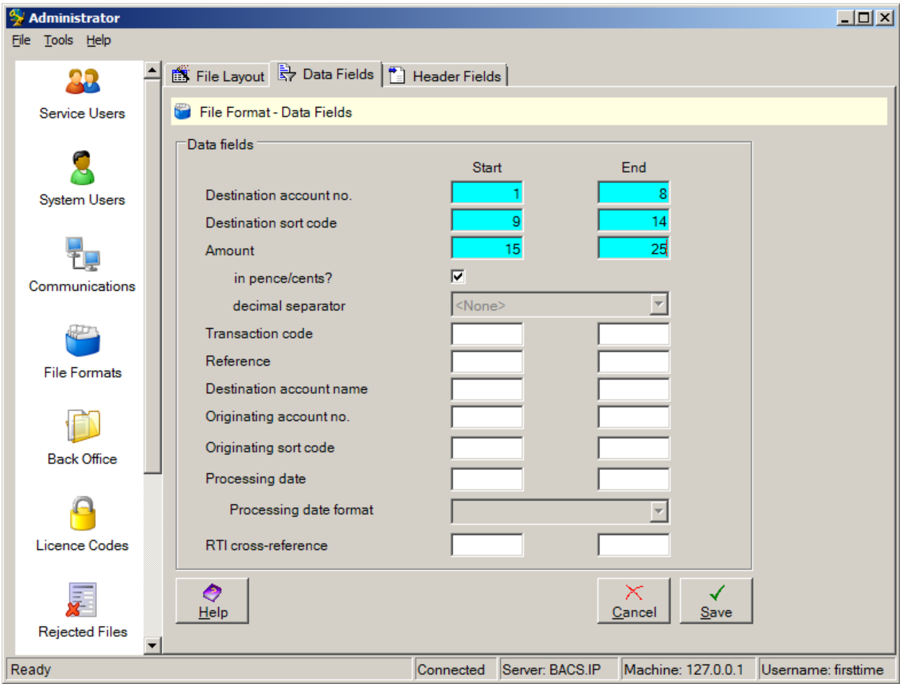
8.5.1.2 Data Fields

The contents of this page differ slightly, according to whether you have selected delimited or fixed length records on the File Layout page.



For most delimited records, the page will look like that shown above.

For fixed length records, or fixed length fields in delimited records, the page will look like that shown below.



As you can see from the two examples above, delimited records require an index, to enable you to specify the position in which the listed fields occur, whereas fixed length records or fixed length fields require you to specify a start and end position for each field in the record.

You must specify the position details for the first three fields. You must also specify the position details for any of the remaining fields that are found in the file. For any of the remaining fields that are not found in the file, you must specify default details in the Back Office section.

Index fields for delimited records

For each listed field, specify its position in the record by inserting the appropriate index number for its position. The first field in a delimited record is index 1.

Your records may contain more fields than those listed on this page. If this is the case, simply omit the index number(s) that would refer to the extra field(s).

Likewise, your records may contain fewer fields than those listed on this page. If this is the case, just leave the index for those fields blank.

For example, for a record containing the following five fields in the following order:

Destination Account Number

Destination Sort Code

Internal Reference Number

Reference

Amount

you would then fill in the Index field as follows:

Destination Account Number = 1

Destination Sort Code = 2

Amount = 5

Reference = 4

Note that index number 3 is missing, because the third field in the example record is the Internal Reference Number, which is not specified in the list.

Start and End fields for fixed length records or fields

For each listed field, specify its position in the record by inserting the appropriate start and end position. The first field in a fixed length record starts in position 1.

For example, imagine that

ABCDEFGHIJKLMNOPQRSTUVWZYZ1234567890

represents a record where:

Destination Account Number is **ABCDEFGH**

Destination Sort Code is **IJKLMN**

An unused field is **OPQRSTUV**

Reference is **W**

An unused field is **XYZ**

Amount is **12345**

You would then fill in the Start and End fields as follows:

Destination Account Number – Start = 1, End = 8

Destination Sort Code – Start = 9, End = 14

Amount – Start = 27, End = 31

Reference – Start = 23, End = 23

Amount in pence/cents

This tickbox is applicable to both delimited and fixed length records.

If you leave this tickbox empty, you are indicating that the value of the Amount in the payment file is in pounds/Euros. Since BACS require all values in pence/cents, the software will multiply that value by 100 before sending the file to BACS, in order to present the value in pence/cents.

If you check this tickbox, you are indicating that the value of the Amount in the payment file is already in pence, not pounds (or in cents, not Euros). This value will not be changed.

Decimal Separator

This tickbox is applicable to both delimited and fixed length records, and to amounts in both pence/cents and pounds/Euros. You must use this field to specify what type of decimal separator the BACS .IP software should expect to find in your records. Available options are None, Point and Comma. "None" means that you will not be using a decimal separator in your records.

Processing Date Format

This field is applicable to both delimited and fixed length records. If you are providing the Processing Date in your records, this field allows you to select the format of the date using the dropdown list.

Several common date formats have been provided in the dropdown list, but you may type in your own format if necessary, subject to the following limitations:

Year must be defined as yyyy or yy (upper or lower case)

Month must be defined as mm (upper or lower case)

Day must be defined as dd (upper or lower case)

No singular d, y or m is allowed

Month and day names are not allowed

RTI cross-reference (Real Time Information)

This is a random value inserted into field 7 of a Standard 18 Bacs payment instruction. It may also be used for custom formats. The value is formatted as a solidus "/" followed by three alpha-numeric characters (full stops and hyphens are also allowed). Here are some examples of a valid RTI cross-reference:

- /123
- /ABC
- /..A
- /9C-
- /.B/

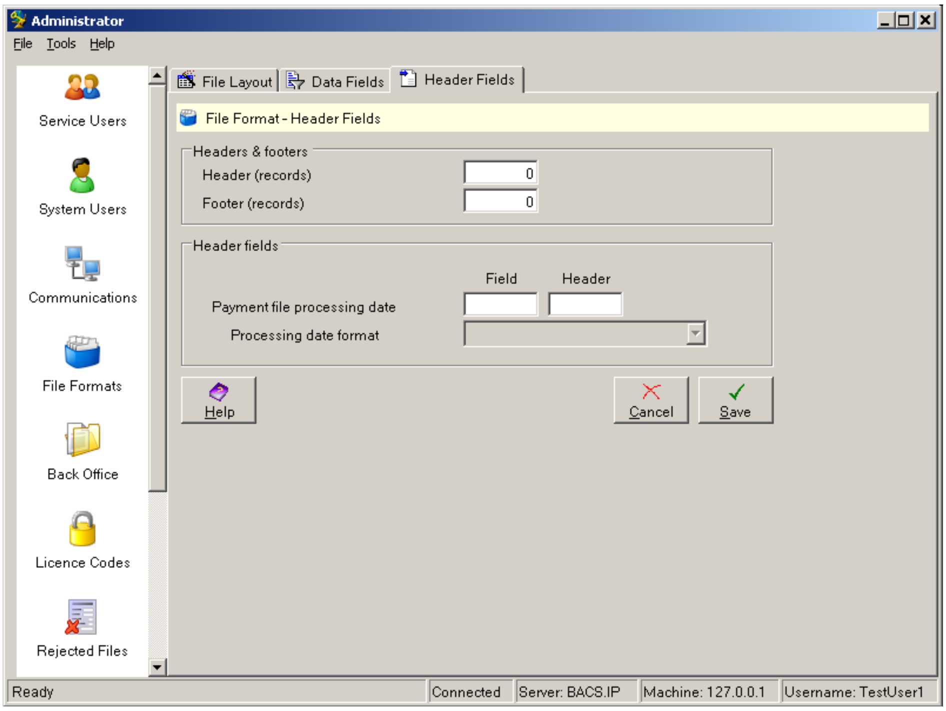
8.5.1.3 Header Fields

The captions on this page differ slightly, according to whether you have selected delimited or fixed length records on the File Layout page.

Each style of page is described below.

8.5.1.3.1 Delimited records

For most delimited records, the page will look like that shown below.



Headers and Footers

The Headers and Footers section allows you to specify how many header records and footer records are contained in this file format. You must specify these values if your file format contains header and footer records, so that the software knows where to find the actual data records.

Header Fields

The Header Fields section allows you to specify the position of the Payment File processing date, if this field is held in the Header section of this file format. If your file format does not contain a Payment File Processing Date, the software will automatically provide a Payment File Processing Date for you, which will be the next valid BACS processing date.

In the Field field, type the index number of the field position within the Header record.

In the Header field, type the index number of the Header record.

For example, if the Payment File Processing Date is held in the fourth field of the second header record, you would type 4 in the Field field, and 2 in the Header field.

Payment Date Format

The Payment Date Format field allows you to select the format of the date using the dropdown list. There is no default, so you must choose a format if you have indicated that the Payment File Processing Date is held in the Header section of the payment file. Several common date formats have been provided in the dropdown list, but you may type in your own format if necessary, subject to the following limitations:

Year must be defined as yyyy or yy (upper or lower case)

Month must be defined as mm (upper or lower case)

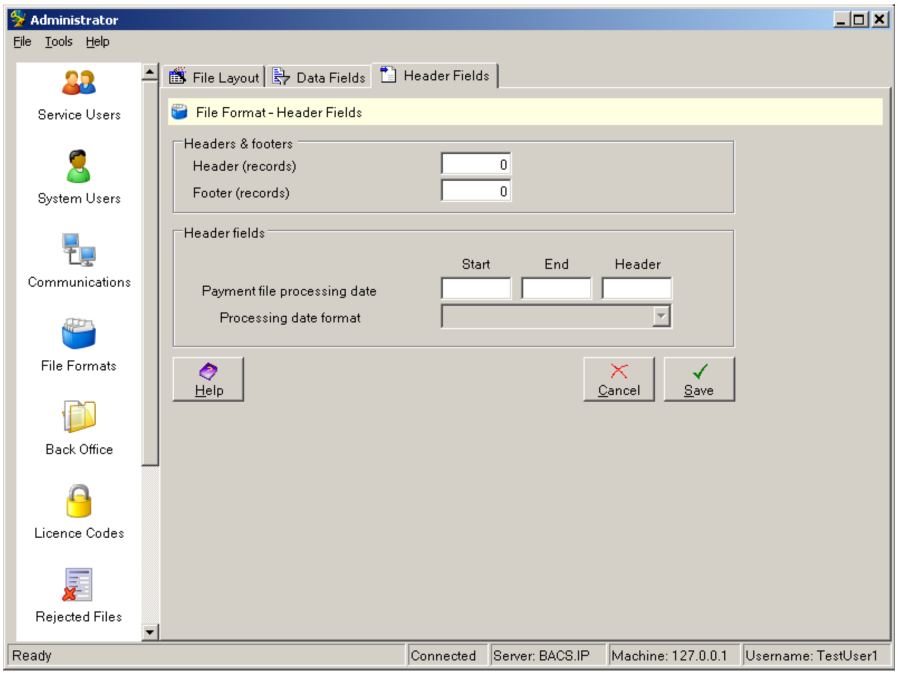
Day must be defined as dd (upper or lower case)

No singular d, y or m is allowed

Month and day names are not allowed

8.5.1.3.2 Delimited records with fixed length fields

For delimited records with fixed length fields, the page will look like that shown below.



Headers and Footers

The Headers and Footers section allows you to specify how many header records and footer records are contained in this file format. You must specify these values if your file format contains header and footer records, so that the software knows where to find the actual data records.

Header Fields

The Header Fields section allows you to specify the start and end positions of the Payment File Processing Date, if this field is held in the Header section of this file format. If your file format does not contain a Payment File Processing Date, the software will automatically provide a Payment File Processing Date for you, which will be the next valid BACS processing date.

In the Start field, type the start position of the Payment File Processing Date within the Header record.

In the End field, type the end position of the Payment File Processing Date within the Header record.

In the Header field, type the index number of the Header record.

For example, if the Payment File Processing Date is held in characters 20 - 27 of the second header record, you would type 20 in the Start field, 27 in the End field and 2 in the Header field.

Payment Date Format

The Payment Date Format field allows you to select the format of the date using the dropdown list. There is no default, so you must choose a format if you have indicated that the Payment File Processing Date is held in the Header section of the payment file. Several common date formats have been provided in the dropdown list, but you may type in your own format if necessary, subject to the following limitations:

Year must be defined as yyyy or yy (upper or lower case)

Month must be defined as mm (upper or lower case)

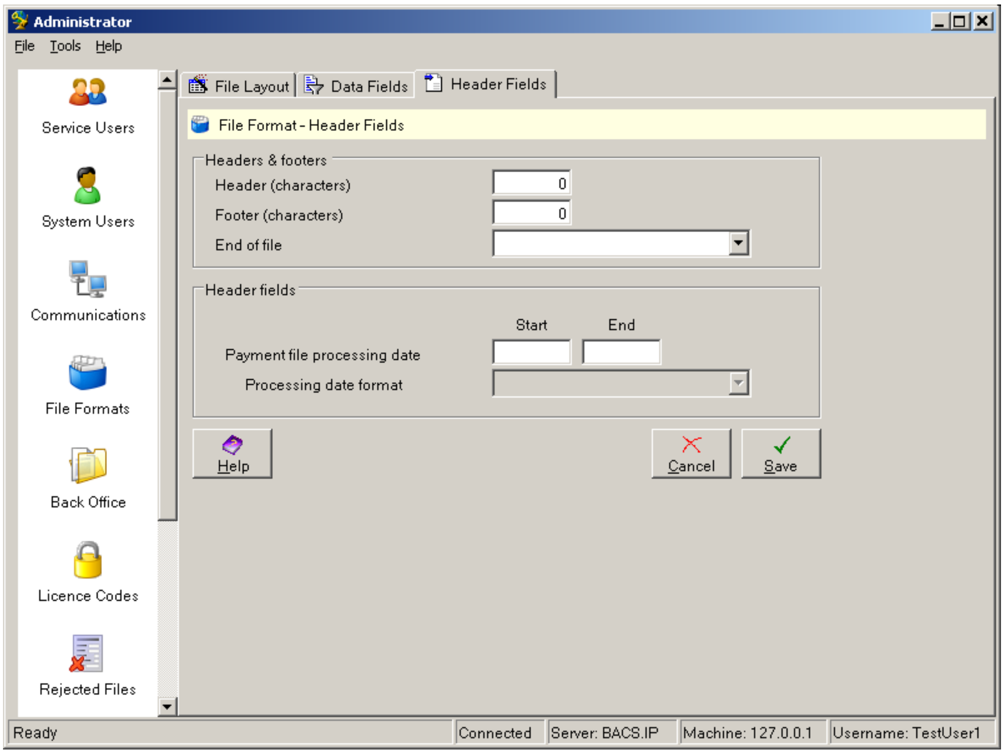
Day must be defined as dd (upper or lower case)

No singular d, y or m is allowed

Month and day names are not allowed

8.5.1.3.3 Fixed length records

For fixed length records, the page will look like that shown below.



Headers and Footers

The Headers and Footers section allows you to specify the length of the header records and footer records that are contained in this file format (i.e. the number of characters that make up each record). You must specify these values if your file format contains header and footer records, so that the software knows where to find the actual data records.

End of File – use this field if your fixed length records make use of an end-of-data marker. Either select the appropriate marker from the dropdown list, or type in the control character or string that is used for the end-of-data marker. This character will indicate to the software that the data stream has ended if, for example, you have a file format that puts this control character at the end of the data then pads out the rest of the file with zeroes until a multiple of the record length is reached.

Header Fields

The Header Fields section allows you to specify the start and end positions of the Payment File Processing Date, if this field is held in the Header section of this file format. If your file format does not contain a Payment File Processing Date, the software will automatically provide a Payment File Processing Date for you, which will be the next valid BACS processing date.

In the Start field, type the start position of the Payment File Processing Date within the Header record.

In the End field, type the end position of the Payment File Processing Date within the Header record.

For example, if the Payment File Processing Date is held in characters 20 - 27 of the second header record, you would type 20 in the Start field and 27 in the End field.

Payment Date Format

The Payment Date Format field allows you to select the format of the date using the dropdown list. There is no default, so you must choose a format if you have indicated that the Payment File Processing Date is held in the Header section of the payment file. Several common date formats have been provided in the dropdown list, but you may type in your own format if necessary, subject to the following limitations:

Year must be defined as yyyy or yy (upper or lower case)

Month must be defined as mm (upper or lower case)

Day must be defined as dd (upper or lower case)

No singular d, y or m is allowed

Month and day names are not allowed

8.5.2 Editing an existing file format

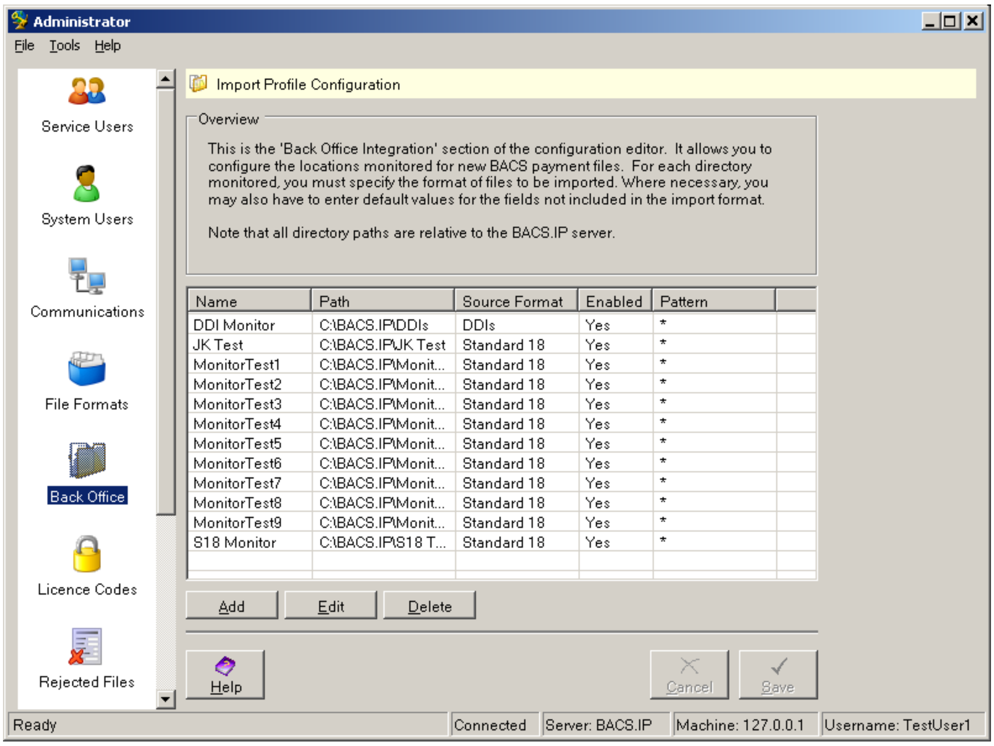
To edit a file format, select one of the file formats from the list and click the **Edit** button. For further details of the fields and their contents, please refer to the section entitled "Adding a new file format".

8.5.3 Deleting a file format

To delete a file format, highlight the file format you want to delete and click the **Delete** button. You will see a message box asking if you are sure you want to delete this file format. Click **Yes** to continue with the delete action, or **No** to keep the file format details.

8.6 Back Office Configuration

Click on the Back Office icon to see the Back Office section of the Administrator.



This section of the Administrator allows you to configure the locations that will be monitored for new BACS payment files.

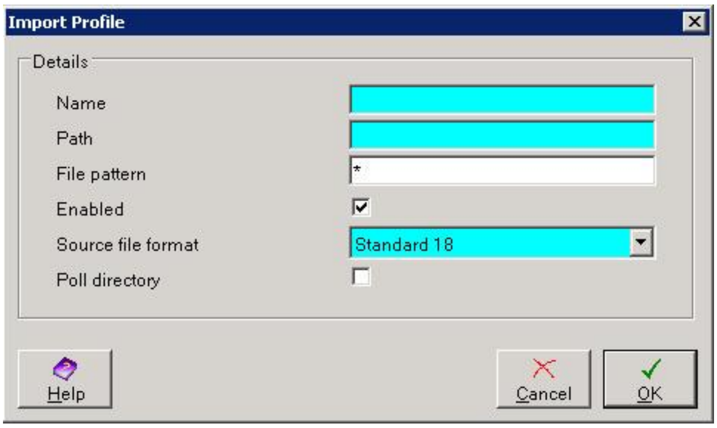
Please note that all directories to be monitored must be accessible from the machine on which the BACS.IP server is installed. You must configure the File Formats section of the Administrator before you configure the Back Office section.

The Import Profile Configuration screen allows you to add, edit or delete import profiles, which will be used by BACS.IP to monitor locations from which to import payment files.

8.6.1 Adding an import profile

To add an import profile, click the **Add** button on this screen.

This will bring up the Import Profile dialog, shown below.



Fields on this dialog are as follows.

Details – Name

Type the name you wish to give to this Import Profile. This name will allow you to easily identify the Import Profile.

Details – Path

Type in this field the full directory path to be monitored. If you are using a letter to denote a root directory, please follow the letter with a colon.

Details – File pattern

You may use this field to specify the type of files to be imported from this directory. For example, type *.txt to import all files with a file extension of txt.

If you leave the asterisk in this field, all files in the directory will be imported. In this case, you will notice that, on return to the Back Office configuration dialog, there is an asterisk in the Pattern column, indicating that all file types will be imported.

Details – Enabled

Select this tickbox in order to enable the directory for monitoring. If this tickbox is left unchecked, the directory will not be monitored for files. Obviously, under normal circumstances you would want the directory to be monitored, but this checkbox allows you to turn off monitoring temporarily for that directory.

This option is particularly useful when dealing with a complicated bureau file structure setup.

Details – Poll directory

Select this tickbox in order to poll the specified directory every 30 seconds.

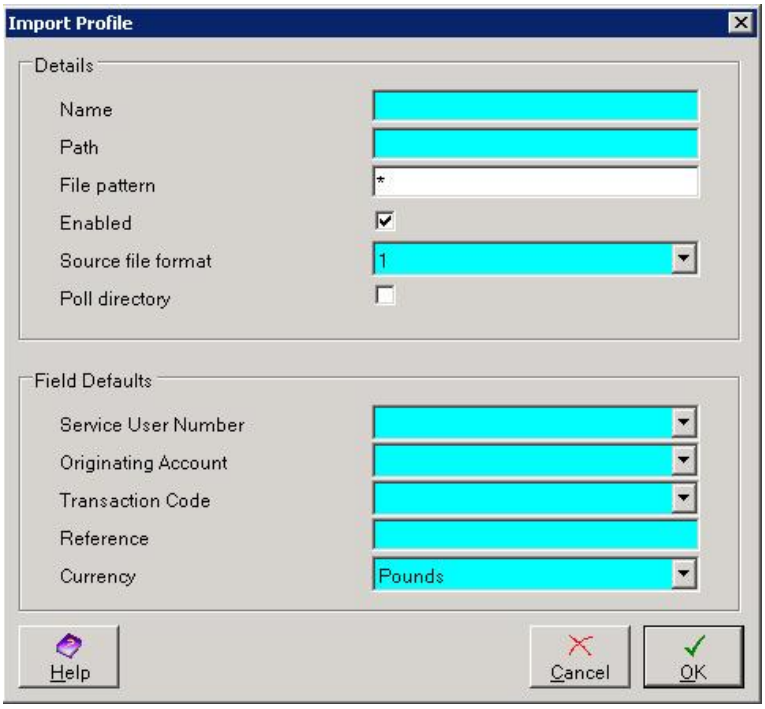
There is usually no need to select this tickbox unless you have specified a network directory or a non-Windows drive, since BACS will carry out polling automatically. However, if you are having any problems picking files up from the specified directory, we recommend that you do select it.

Details – Source file format

This field allows you to specify the format of the file to be imported. Use the dropdown list to select the appropriate file format for all files held in this directory. If the file format you need is not in the list, you will have to add it in the File Formats section. For full details of how to do this, please refer to the section entitled “File Formats Configuration”.

Depending on which source file format you choose, you may see the dialog change to show you an extra set of fields (Field Defaults) that you must fill in before you can return to the Back Office configuration page. The only format that will not ask you for this extra field information is Standard 18, whose file details are already known to the system.

An example is given below, showing all the extra fields that might appear when you select your source file format. If any of these fields are not present, it means you have already supplied the required information in the File Formats section.



Field Defaults – Service User Number

Use the dropdown arrow to select the service user number to associate with all files of this format in this directory path.

Field Defaults – Originating Account

Once you have selected a service user number above, you will be able to select an originating account to associate with all files of this format in this directory path. If the dropdown list is empty, you must return to the Service Users section and add Originating Bank Account details for this service user before you can save the details in this dialog.

Field Defaults – Transaction Code

Use the dropdown arrow to select the appropriate transaction code for all files of this format in this directory path.

Field Defaults – Reference

Type in this field the default reference number for any files of this format and in this directory path.

Any records in these files that don't have a reference specified will use this default value.

You can enter as part of the reference a counter, so each record is given a unique reference. The counter is in the form %CNTn% where n is the length of the counter. For example, if you set the reference to be REF - %CNT5%, the first record without a reference will be given the reference REF – 00001. Following records will have REF – 00002, REF – 00003 etc.

Field Defaults – Currency

Use the dropdown arrow to select the appropriate currency to be used for all files of this format in this directory path.

Once you have provided values for all the mandatory fields on this dialog, press **OK** to return to the Back Office configuration dialog.

To return without saving your changes, press **Cancel**.

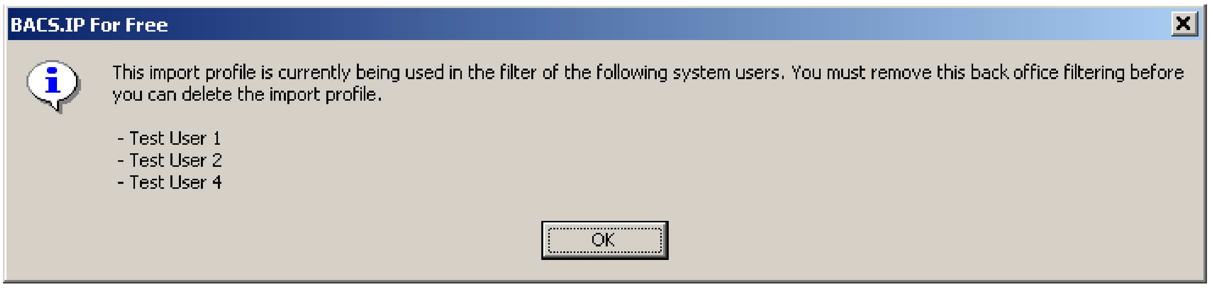
8.6.2 Editing an import profile

To edit an existing import profile, select a profile to edit and click the **Edit** button on this screen. This will bring up the Import Profile Configuration dialog, containing the details of the profile you have selected. For details of how to use the fields and buttons on this screen, please refer to the section entitled "Adding an import profile".

8.6.3 Deleting an import profile

To delete an import profile, select the profile you want to delete and click the **Delete** button on this screen. You will see a message box asking if you are sure you want to delete this monitor directory. Click **Yes** to delete it from the list or **No** to keep it in the list.

If this import profile is being used in the back office profile filtering on a system user when you try and delete the import profile, you will see the following message,



The message displays a list of all the system users who currently have a back office profile filter setup to use this monitor directory. You must remove this filtering association before you can delete the import profile, please see the section 'Adding a system user' for details on how to remove this filtering.

8.7 Licence Codes

Click on the Licence Codes icon to see the Licence Codes section of the Administrator.

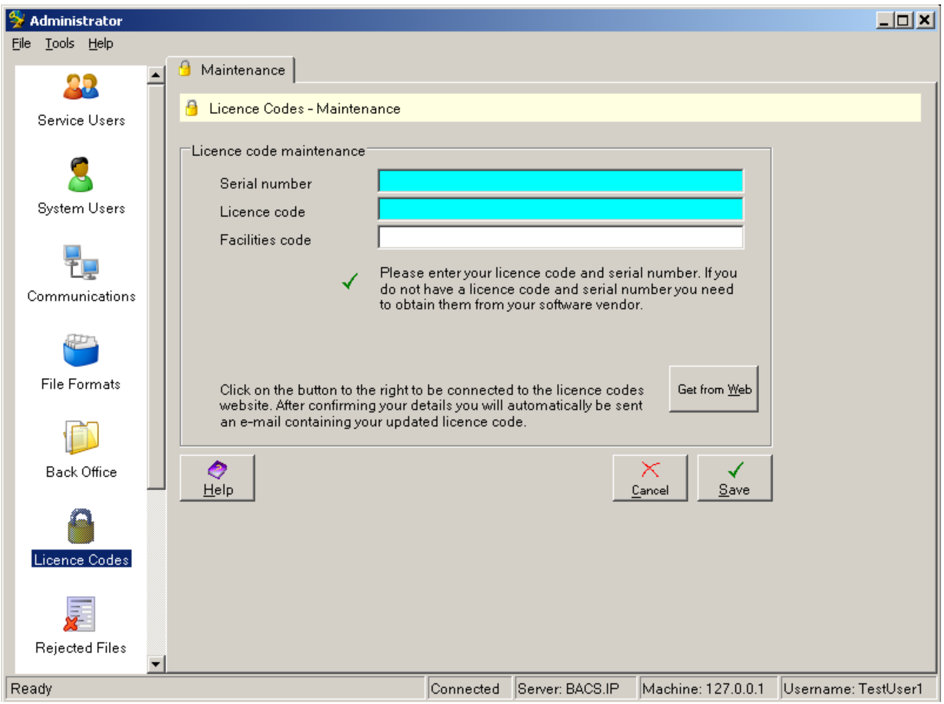
A valid and current licence code is required in order for you to use BACS.IP. When you first take delivery of BACS.IP, you will be provided with a licence code and a serial number for your copy of BACS.IP.

The serial number is a unique number allocated to your copy of BACS.IP. It should be quoted in all correspondence with Data Interchange Plc relating to BACS.IP.

When you start one of the BACS.IP applications for the first time, you will not be able to do anything until you have entered your licence code and serial number in the Administrator.

Some users may have been given an installation code instead of a licence code. In this case you will not be able to use BACS.IP until you have upgraded the installation code to a full licence code. These users should refer to the section below entitled "Installation Codes".

The licence code belongs uniquely to the serial number, but has an expiry date. This means that, usually once a year, you must update your licence code in order to continue using BACS.IP. The place to do that is here, on the Licence Codes page of the BACS.IP Administrator.



When you first open the Administrator, the three fields will be empty. Type the serial number, licence code and, if applicable, the facilities code you received with the software into the appropriate fields.

If the green tick appears, click the **Save** button and continue with the software configuration procedure.

During the validity of your licence code, if you open this page you will see a message telling you that your licence code and serial number combination is valid. This is further indicated by a green tick alongside the message. It also tells you the expiry date of the licence code.

8.7.1 Licence Code Expiry

When the licence code nears its expiry date, a warning message will appear. You should take steps to renew your licence code before the expiry date to avoid any access problems.

Once you have renewed your product licence, you should receive your new licence code via e-mail. If you should lose the new licence code, you can also obtain it via the **Get from Web** button on the Licence Codes page.

Click on the **Get From Web** button to gain access to the Data Interchange Plc Login page.

Please type in your BACS.IP serial number and original **installation code** and press the **Login** button.

You will be taken to the next page, where your company name, your contact name and contact e-mail address are displayed. Please ensure that the e-mail address is correct, as we will use it to e-mail your new licence code.

When you have checked the details, press the **Save Details** button. You will then have access to the secure area of the Data Interchange website.

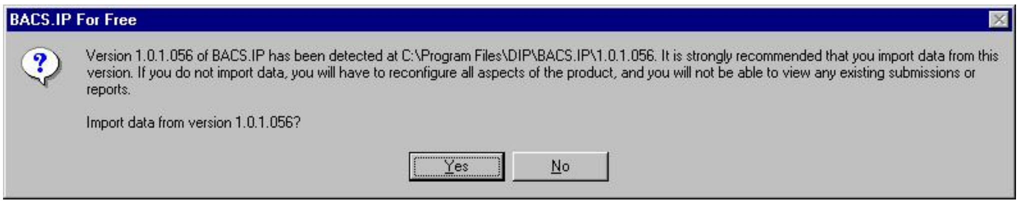
Your new code will be e-mailed to you immediately. When you have the code, return to the Licence Codes section of the Administrator and copy it into the Licence code field.

If you choose to type the code in, please be very careful not to confuse the letter I with the number 1 and the letter O with the number 0.

When the green tick appears, click the **Save** button. You may now leave the Licence Codes section.

8.7.2 Previous version detected

If you have just installed an upgrade of the product, when you click the **Save** button your previous version of BACS.IP will be detected and you will be shown the following message:



This message advises you to import data from the previous version that has been detected. If you do not, you will have to reconfigure the product and will not be able to view any existing data from the previous version.

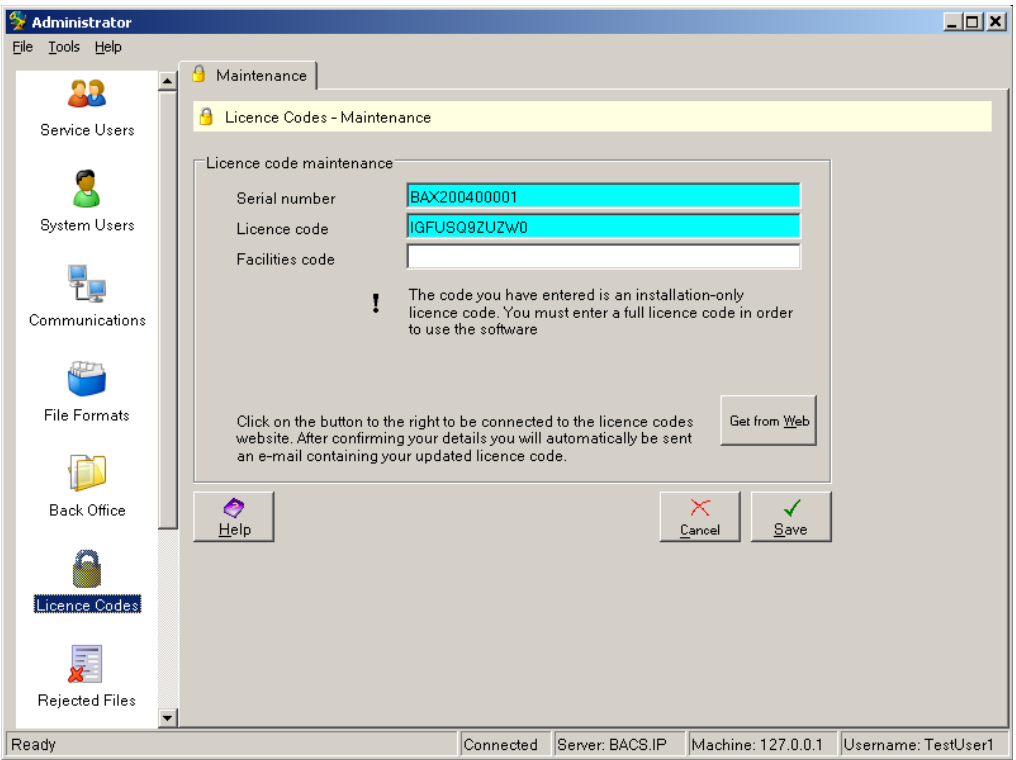
Click **Yes** to import the data. When the import is complete, you will see a message box to that effect.

8.7.3 Installation Codes

If you have been given an installation code (i.e. it is prefixed with the letter I), you will not be able to use BACS.IP until you have registered the software.

N.B. Always keep your installation code safe as you may need it in the future.

The Licence Codes page will initially look like the one shown below:



You will see a black exclamation mark, indicating that the code you have entered is an installation-only licence code.

Click on the **Get From Web** button to gain access to the Data Interchange Plc website, where you will be able to obtain your full licence code.

Please type in your BACS.IP serial number and installation licence code and press the **Login** button.

You will be taken to the next page, where you must provide your company name, your contact name and a contact e-mail address. These details are important, as we will use them to e-mail your new licence code.

When you have provided these details, press the **Submit** button. You will then have access to the secure area of the Data Interchange website.

Your new code will be e-mailed to you immediately, using the e-mail address you have just given. When you have the code, return to the Licence Codes section of the Administrator and copy it into the Licence code field.

> *If you choose to type the code in, please be very careful not to confuse the letter I with the number 1 and the letter O with the number 0.*

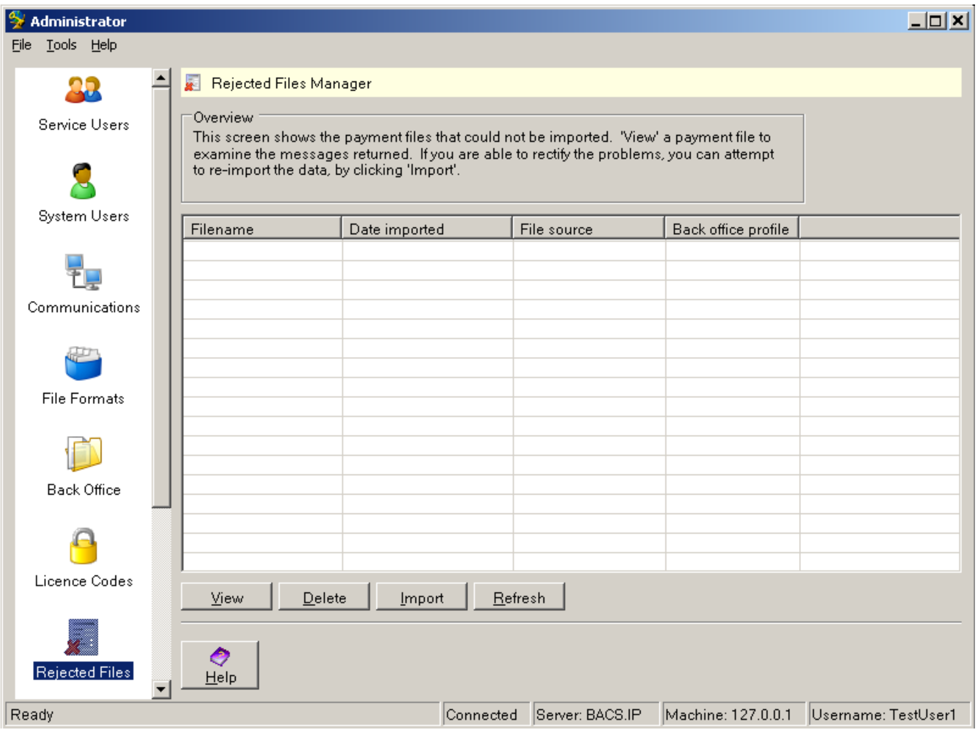
When the black exclamation mark has changed to a green tick, click the **Save** button. You may now leave the Licence Codes section.

8.8 Rejected Files Configuration

This section of the Administrator allows you to delete or import files into BACS.IP, which have previously failed for some reason to be imported. If you wish to import a rejected file you must first correct the fault that caused it to be rejected.

Only structurally invalid files will be rejected e.g. files with missing records. If the software can obtain the information it needs from a file, even if that file contains certain errors, the file will be imported successfully.

To see the Rejected Files section, click on the Rejected Files icon in the Administrator. This will bring up the Rejected files manager page, as shown below.



The Rejected Files section only has one page. This consists of a data area with columns labelled **Filename**, **Date imported**, **File source and Back office profile**.

Most of the columns are narrow, so you may want to adjust the size to see the full contents. To do this, use your mouse to hold the cursor over the line dividing one column heading from the next. When the cursor changes to a cross shape, double-click the left mouse button. This will increase the size of the column so that all the text can be seen. Then use the horizontal scroll bar at the bottom of the data area to view all the columns.

There are also four buttons, labelled **View**, **Delete**, **Import** and **Refresh**. A description of each column and button can be seen below.

Filename

This column shows you the filename of the file that has been rejected. You will see that the file is now held in the Rejected directory below the BACS.IP installation directory.

Date imported

The Date imported field shows the date and time at which the file was rejected.

File source

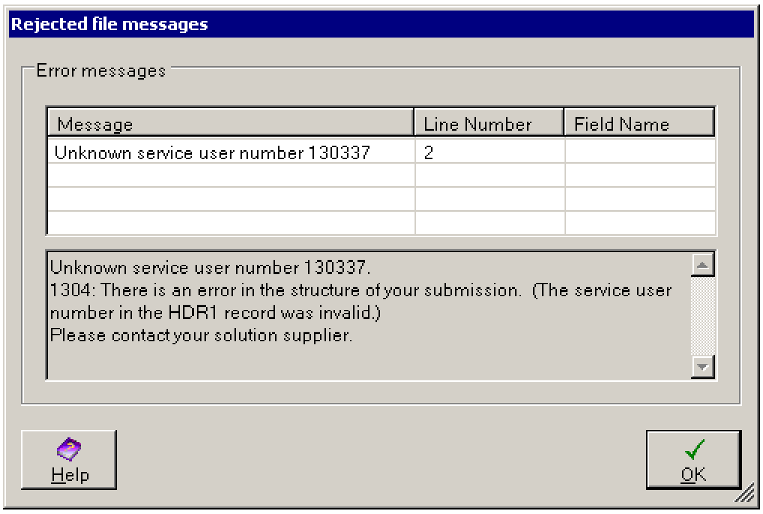
This column shows the import profile used to import the file.

Back office profile

This column shows the name of the back office profile that was used when attempting to import the file.

View button

Select a file from the list of rejected files and click the **View** button to display all the reasons why the selected file was rejected. The following dialog will come up.



If the rejection occurred because of an error within the file, the line number of the line containing the error, and, if known, the field name containing the error, will be given.

If the rejection occurred for some other reason, just the error message will be displayed.

Delete button

If you click the **Delete** button, you will see a message box asking if you are sure you want to delete the selected file. If you want to delete the file click **Yes**. If you want to keep the file click **No**. If you choose to delete the file it will be removed from disk as well as from the BACS.IP system and so cannot be retrieved afterwards.

Import button

If you click the **Import** button, BACS.IP will attempt to import the selected file. You will see that the file disappears from the list. If the file is rejected again, either because the original problem was not corrected or because another problem has been identified, the file will reappear in the list when you click the **Refresh** button.

Refresh button

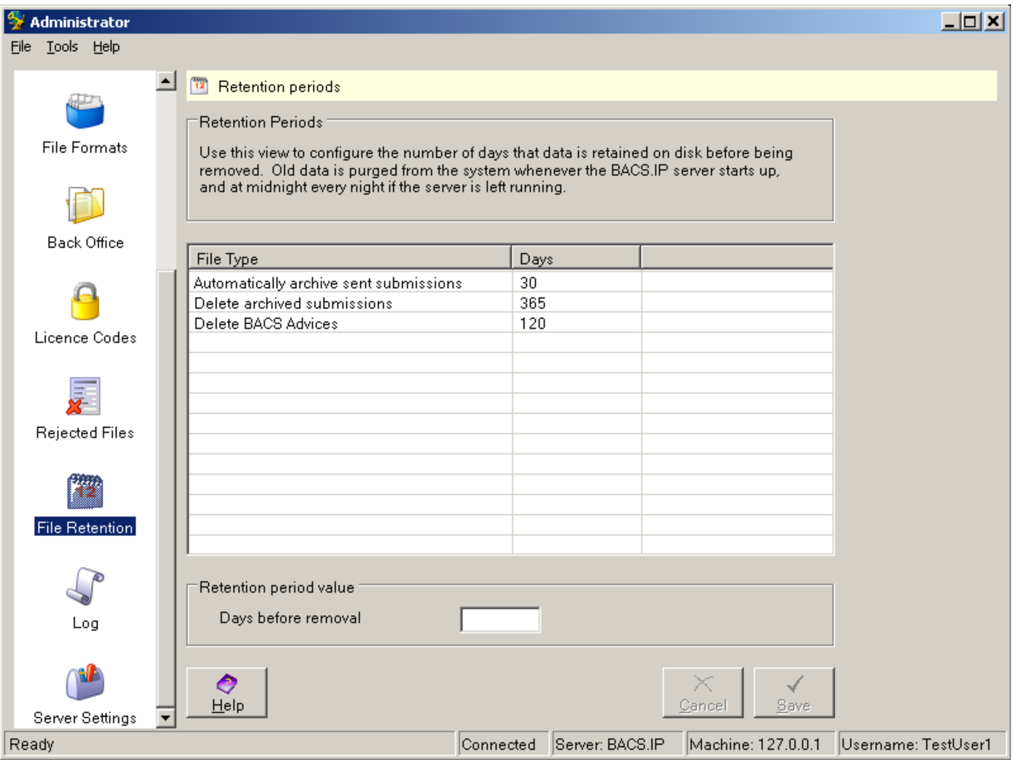
If you click the **Refresh** button, the list of rejected files will be updated with any files that have been rejected while you have had the Rejected files page open.

8.9 File Retention Configuration

This section of the Administrator allows you to specify the length of time for which different categories of BACS.IP files or documents are to be kept in your system before being deleted or archived.

BACS.IP stores a lot of information. Each time you receive report files or create new payment files the amount of data that BACS.IP has to maintain is increased. There will come a time when the data that BACS.IP is storing is no longer needed by you. To allow you to decide how long you keep data for, BACS.IP uses retention periods. These are periods of time associated with a certain type of data that indicate how long you wish to keep that type of data.

To see the File Retention section, click on the File Retention icon in the Administrator. This will bring up the single page of the Retention Periods section, as shown below.



The Retention Periods section only has one page. This consists of a data area with columns labelled **File Type** and **Days**, below which is a section labelled **Retention period value**. A description of each column and field can be seen below.

File Type

This column describes the action that will be taken on different categories of BACS.IP files after the specified period of time. These cover:

- **Automatically archive sent submissions** – The default period is 30 days. "Sent submissions" refers to ffiles relating to submissions that have been processed by BACS and for which a processing report (input/withdrawal) has been received and read. The submission will be archived 30 days after the earliest processing date of the submission, providing the processing report has been read.
- **Delete archived submissions** – the default period is 365 days. Submission and payment data will be kept in the system for 365 days after the earliest processing date of the submission, before being deleted. After this time, submission and payment data, along with associated files on disk and related processing reports, will be deleted from the system permanently.
- **Delete BACS Advices** – The default period is 120 days. The BACS Advices that will be deleted are any reports received from BACS that are not of the type ReftArrival, ReftrArrival, InputReportOfDayHd, InputReportOfDayKm, Rejection, TestInput, WithdrawalReport or SubmissionResults. They will be kept for 120 days after their creation date at BACS (not the date they were downloaded to your system) before being deleted from the system permanently.

Days

This column shows the number of days after which the action will be carried out on each category of file. You may change this value by editing it in the Retention period value section below.

Retention period value

This section contains a field whose label changes according to the file type that has been selected. For files that are to be deleted, the label will be **Days before removal**. For files that are to be archived, the label will be **Days before archiving**. If you highlight any line in the list above, you will see the figure from its Days column appear in this field. You may then edit it if you wish.

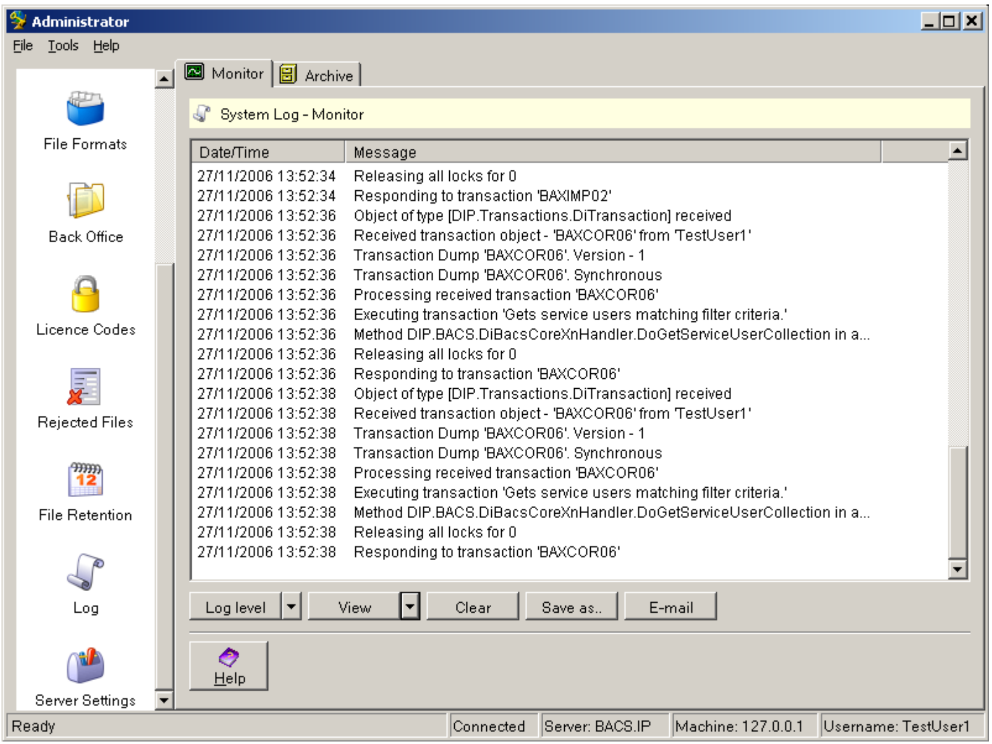
If you do change any values, the **Cancel** and **Save** buttons will become enabled. Click **Save** to keep the changes you have made, or click **Cancel** to discard the changes.

8.10 Log Configuration

This section of the Administrator allows you to view both the current log and archived logs.

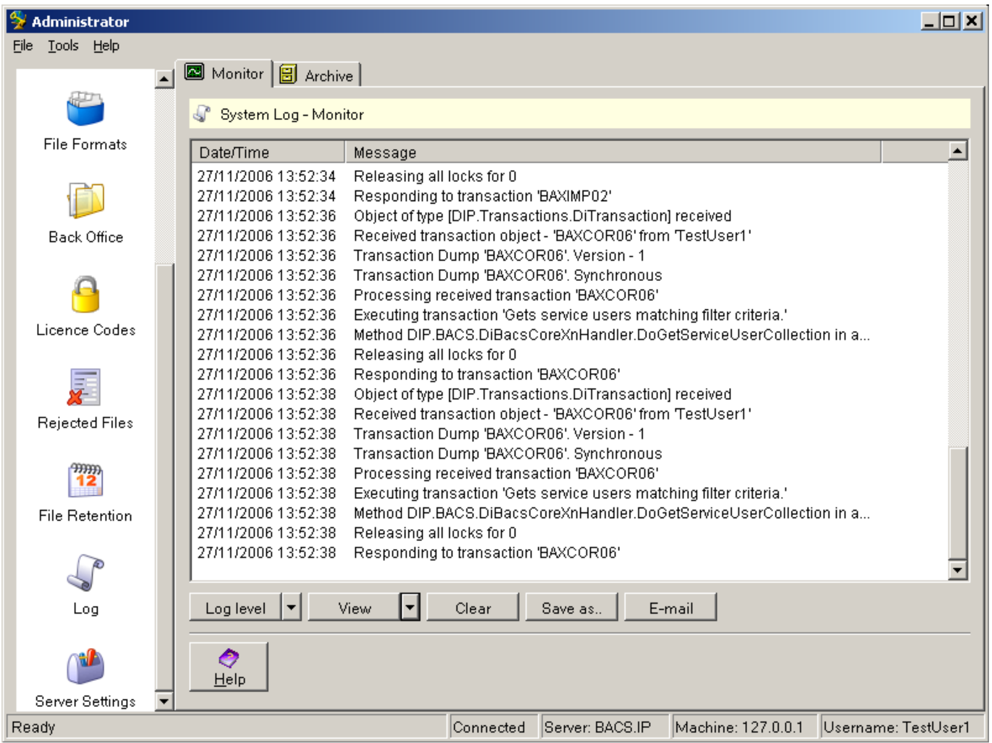
Please note that you do not need to archive any logs yourself as BACS.IP does this for you automatically. In fact, when you view the current (live) log on the Monitor page, the lines you see are also being written to an archive log.

To see the BACS.IP Log section, click on the Logs icon in the Administrator . This will bring up the front page of the Logs section, as shown below. There are two pages in the Log section, called Monitor and Archive.



8.10.1 Monitor page

The Monitor page allows you to view your current log. This log is updated in real time, so you will see lines being added to the log while you are looking at it. The first column shows the date and time at which an event occurred, while the second column displays a message informing you of the event that occurred.



The buttons on this page are described below.

8.10.1.1 Log level

The **Log level** button allows you to choose which types of log information you want to see in your system log. We suggest that you keep the default setting (i.e. General) just to keep the log uncluttered by too much information. Just click on the button or the dropdown arrow to see the available options. Click on an option to select or deselect it.

8.10.1.2 View

The **View** button allows you to choose which columns are visible to you in the log. We suggest that you keep the default settings (i.e. just Date/Time and Message) to keep the log uncluttered by too much information. Just click on the button or the dropdown arrow to see the available options. Click on an option to select or deselect it.

Date/Time – the date and time at which the logged event occurred

Type – indicates what type of log information is shown in each line of the log.

Level – related to the setting of the Log level button. This indicates, for each line of the log, what level of logging is represented (General, Trace, Debug, Buffer or SQL).

Source – indicates the origin of the log message i.e. which source code program has produced the message.

Message – the information about the logged event. This may be an error message, a warning message, a trace message or an informational message. The type of message is indicated by the last letter of the code in the Source field (E, W, T or I).

Unique ID and **ID Meaning** are not currently used.

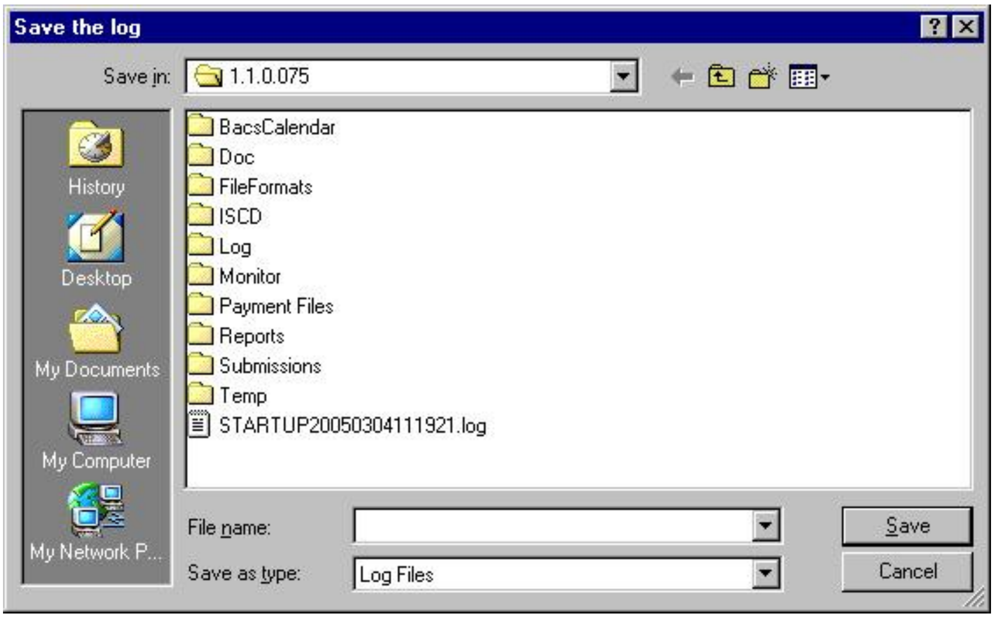
8.10.1.3 Clear

If you click the **Clear** button, the log lines on this page will be cleared, leaving an empty area on the page. The log file itself will not be affected by the use of this button.

8.10.1.4 Save as…

The BACS.IP system logs are automatically saved, when they get to a certain size, in the BACS.IP Log directory.

However, you may use this button if you also want to save the log file somewhere of your own choosing. If you click on this button you will see the following dialog:



Use it in the same way as you would the Windows File Save dialog i.e. select a directory path and a file name and click the **Save** button.

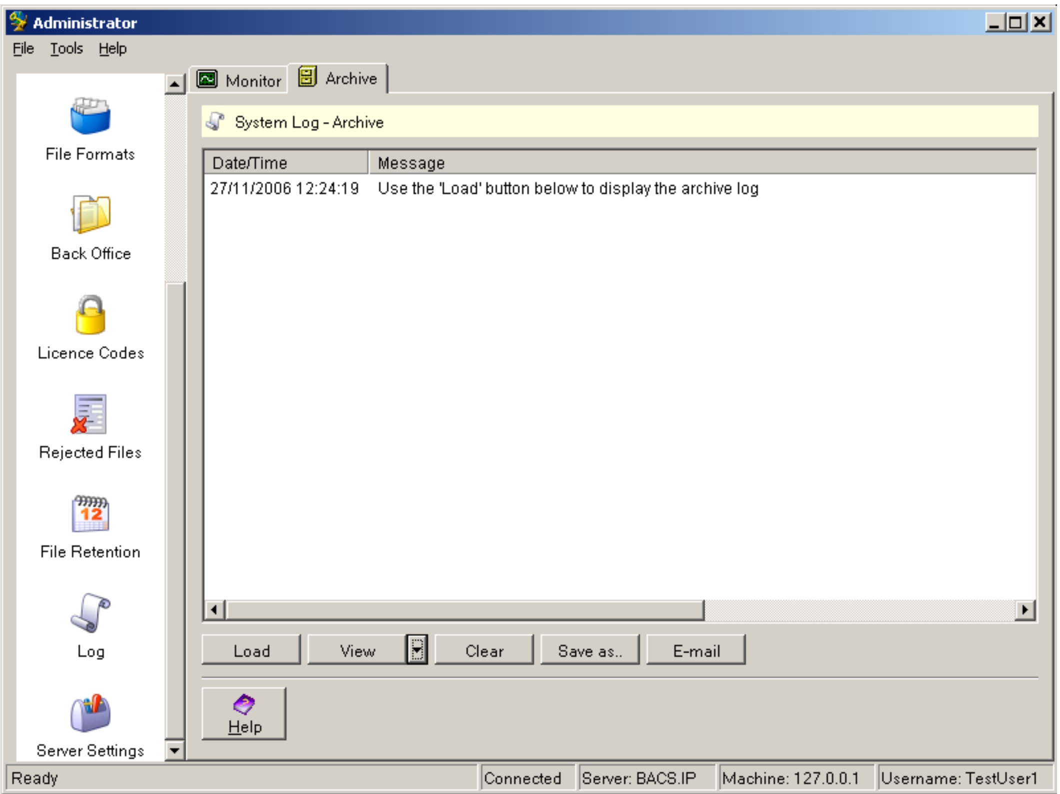
8.10.1.5 E-mail

Use this button if you want to e-mail the log to somebody (usually this will be our Support department). If you click on this button, it will bring up a new mail message in your default e-mail software, with the e-mail address of our support department and "BACS.IP LOG" in the subject field. All you have to do is Send it!

The exact behaviour of this function depends on the e-mail system you have installed.

8.10.2 Archive page

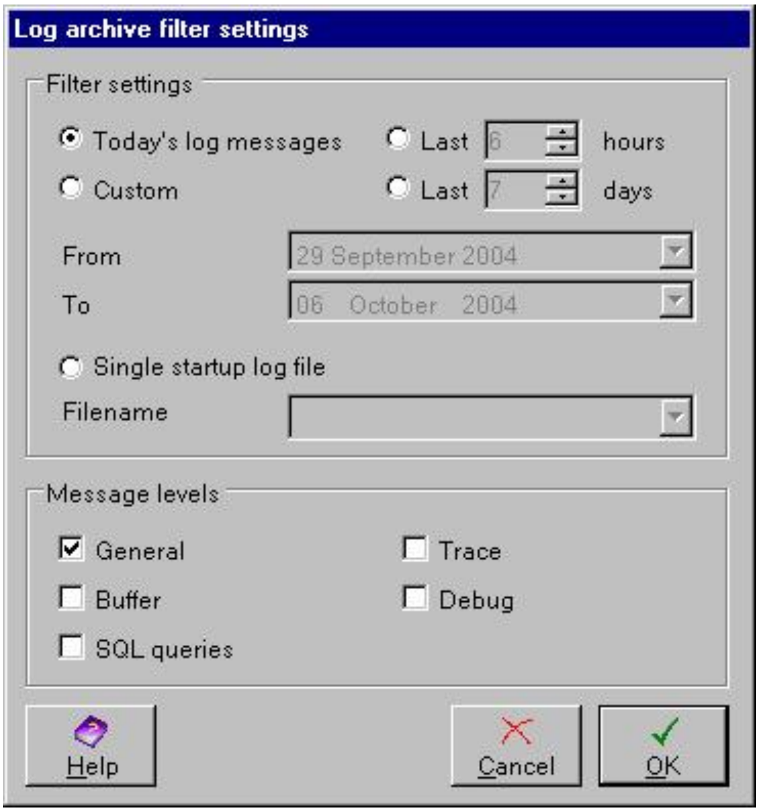
The Archive page allows you to look at previous logs. To do this, you first have to click the **Load** button, as suggested in the message column of this page.



The buttons on this page are explained below.

8.10.2.1 Load

If you click the **Load** button, you will see the following dialog.



This filter dialog allows you to select logs from today, or from any range of hours or days.

Alternatively, you can select a particular startup log file. To do this, select the Single startup log file radio button, then use the dropdown arrow alongside the Filename field to select the required startup log file.

The Message Levels section at the bottom of this dialog allows you to choose the level of log information to be included in the loaded log.

8.10.2.2 View

The **View** button allows you to choose which columns are visible to you in the log. We suggest that you keep the default settings just to keep the log uncluttered by too much information. Just click on the button or the dropdown arrow to see the available options. Click on an option to select or deselect it.

Type will indicate what type of log information is shown in each line of the log.

Source will indicate the origin of the log message i.e. which source code program has produced the message.

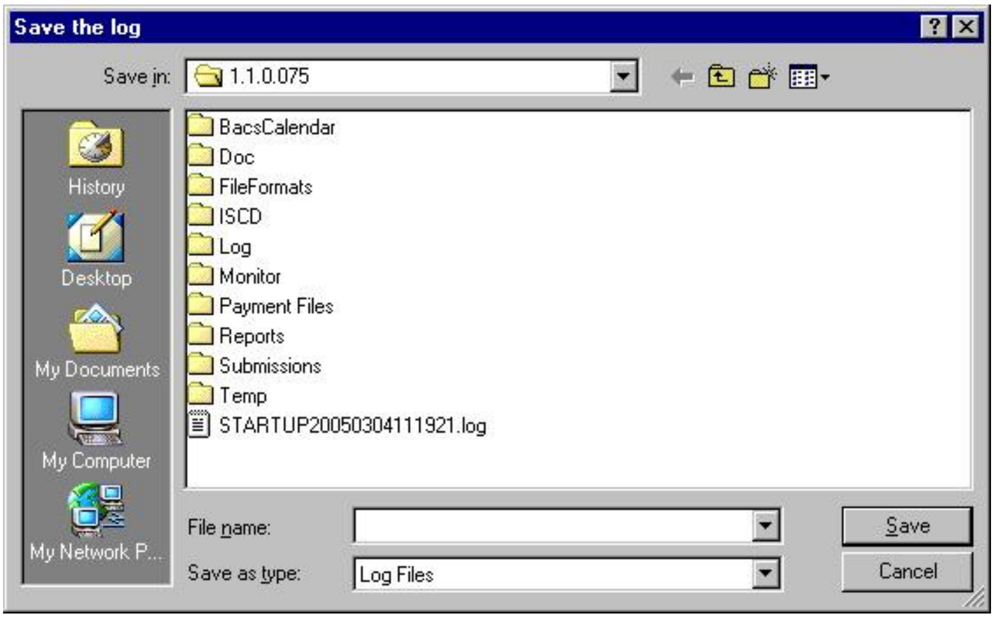
Clear

If you click the **Clear** button, the log lines on this page will be cleared, leaving an empty area on the page. The log file itself will not be affected by the use of this button.

8.10.2.3 Save as…

The BACS.IP system logs are automatically saved, when they get to a certain size, in the BACS.IP Log directory.

However, you may use this button if you also want to save the log file somewhere of your own choosing. If you click on this button you will see the following dialog:



Use it in the same way as you would the Windows File Save dialog i.e. select a directory path and a file name and click the **Save** button.

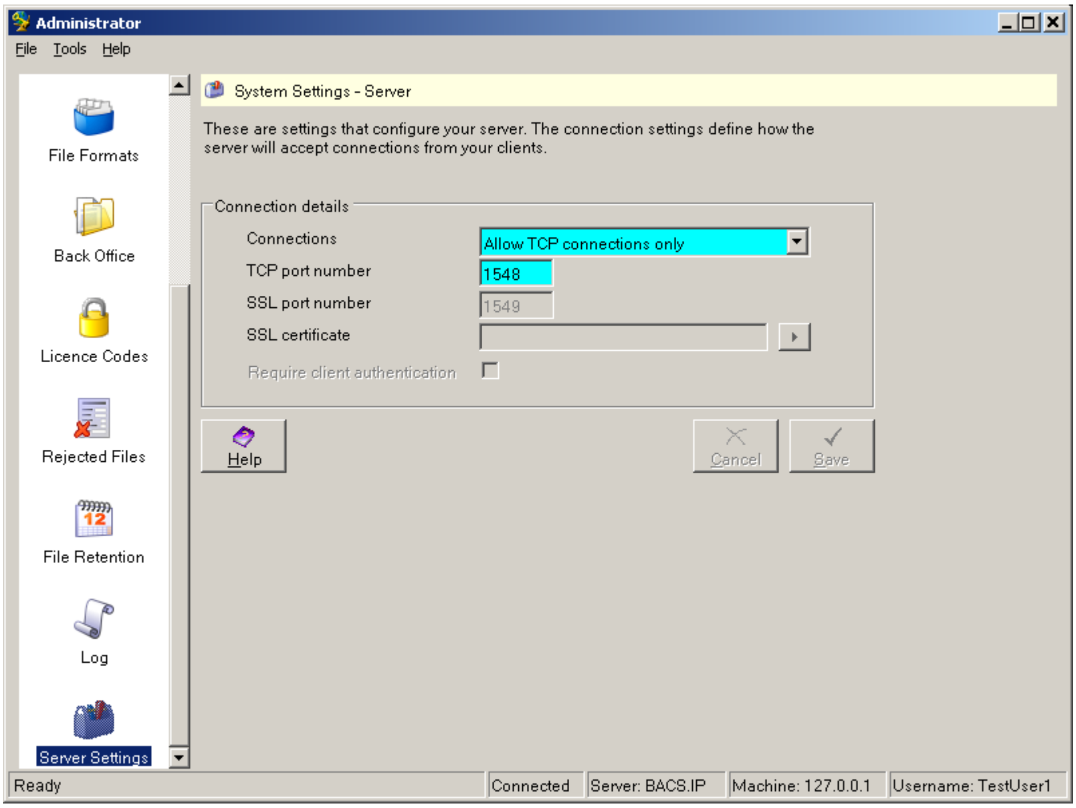
8.10.2.4 E-mail

Use this button if you want to e-mail the log to somebody (usually this will be our Support department). If you click on this button, it will bring up a new mail message in your default e-mail software, with the e-mail address of our support department and "BACS.IP LOG" in the subject field. All you have to do is Send it!

The exact behaviour of this function depends on the e-mail system you have installed.

8.11 Server Settings

This section of the Administrator allows you to configure the connection settings used by the server. Note that these are the server connection details. You must also setup your client applications to use the same details if you make changes to these connection settings.



Connection details – Connections

The connections list allows you to specify whether clients must authenticate with SSL when they connect to the server. You can select 'Allow TCP connections only', which will not allow SSL connections, 'Allow SSL connections only', which will only allow clients authenticated with SSL to connect, or 'Allow both types of connection' which will allow both TCP and SSL connections.

Connection details – Port Number

The port number is the port on which the server listens for clients. The default port number should be usable by most servers, but, if necessary, type in a different port number to be used by the BACS.IP Server.

Where both TCP and SSL connections are in use, separate port numbers are required for each connection.

Connection details – SSL certificate

Select the button next to this field to select a certificate that will be used for authentication. For more details on certificates see the section entitled 'Select certificate dialog'.

Connection details – Client authentication

Select this check box if you additionally require the server to authenticate with the client.

8.12 Client Options

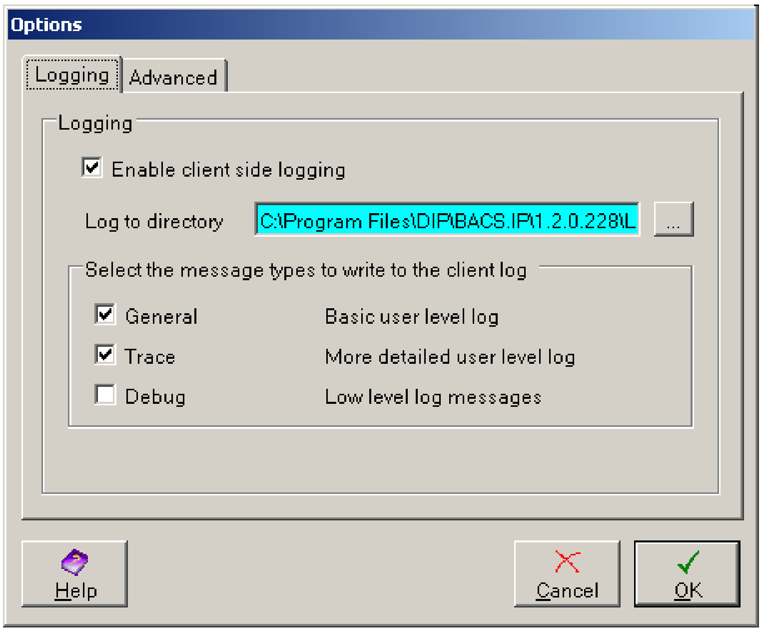
An Options dialog is accessible from each of the BACS.IP client applications. The settings shown in the Options dialog are only applicable to the application in which you are viewing them. Likewise, any changes you make will only affect the particular application in which you make those changes.

When you click on the **Tools >> Options** menu item, you will be presented with the options dialog.

There are two tab pages to this dialog, Logging and Advanced. The **Logging page** allows you to turn on client-side logging, while the **Advanced page** allows you to specify client side connection details.

Logging page

The Logging page is shown below.



You can choose whether to use client side logging or not by selecting the 'Enable client side logging' tickbox. With this option checked, you will be able to specify a directory to which the log messages for this application will be written. You may type in a directory of your choice, but the default directory is as follows:

- C:\Program Files\DIP\BACS.IP\Installation Directory\Log

Where Installation Directory indicates the current build you have installed e.g. 1.2.0.228

The files in each of these log directories will be named according to the following naming convention:

The first 3 characters will determine the log for the application where

- LOG represents the server logging
- ADM represents the administrator client logging
- BAX represents the submissions client logging

The next 8 digits will be the date of the log in DDMMYYYY format (in the example below, the date is 06102003 i.e. October 6th 2003)

The next 6 digits will be the time of the log in HHMMSS format (in the example below, the time is 101741 i.e. 10:17a.m. and 41 seconds.

Each file ends with .log

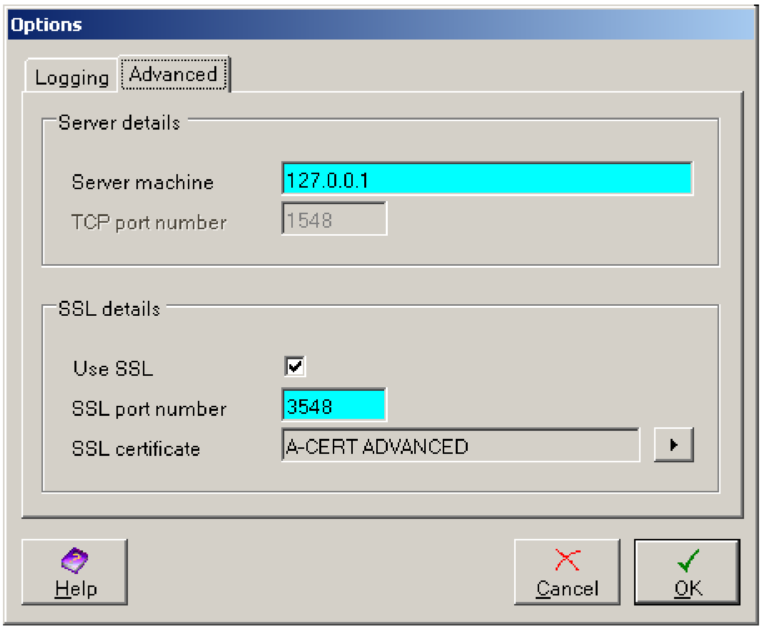
Example – LOG06102003101741.log

Using the Logging page you can also choose how much information, and of what kind, is written to the client log. This is done in the section headed "Select the message types to write to the client log". There are three message types to choose from, General, Trace and Debug.

By default, only General and Trace messages are selected. If our Support department requires more detailed information, they may suggest that you select Trace logging as well.

Advanced Page

The advanced tab page will display the following dialog,



This allows you to specify the connection settings used on the client. In order to connect successfully to the BACS.IP server, these settings must match the connection settings on the server.

Server details – Server machine

This must be set to the IP address of the machine on which the BACS.IP Server is installed. The default value in this field will be the IP address of your local machine. You may change it to the address of another machine if necessary

Server details – TCP Port Number

This must be set to the port number that the BACS.IP Server is currently listening on.

Connection details – SSL certificate

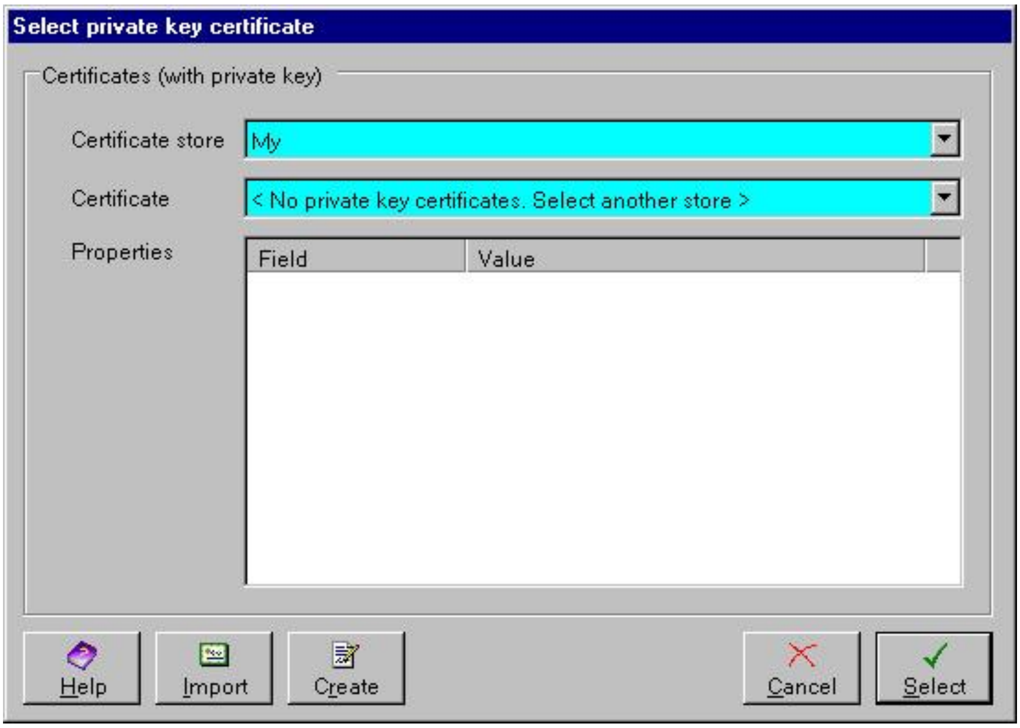
Select the button next to this field to select a certificate that will be used for authentication. For more details on certificates see the section entitled ‘Select certificate dialog’.

Connection details – Client authentication

Select this check box if you additionally require the client to authenticate with the server.

8.13 Select Certificate Dialog

The Select Certificate dialog allows you to choose the certificate to encrypt and or sign data.



Certificate store

Use the dropdown arrow alongside this field to select the appropriate certificate store i.e. the store where the certificate you want to use is kept.

Certificate

If the certificate store you have selected contains no key certificates of the type you require (i.e. private or public, depending on the function for which you are selecting the certificate), the Certificate field will display a message to that effect, telling you to select another store.

Once you have selected a certificate store containing certificates of the type you require, use the dropdown arrow to select the certificate you want from that store. Any properties of that certificate will be displayed in the Properties section.

Properties include:

- Whether or not the certificate encapsulates a private key
- The signature algorithm
- Issuer details
- Validity dates

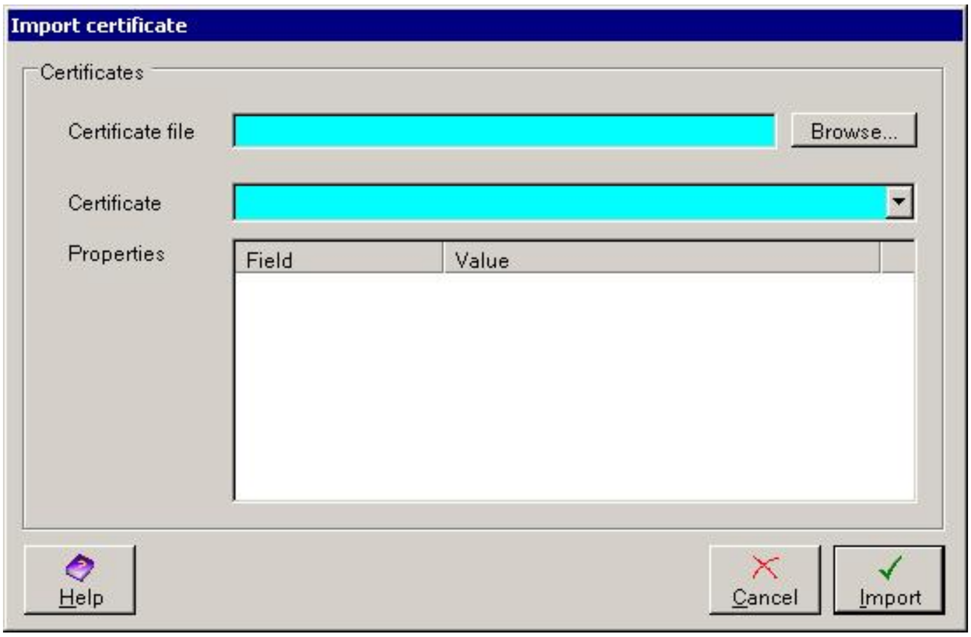
Import button

If the certificate you want is not held in any of the certificate stores in the dropdown list, you can import another certificate by clicking on the **Import** button. This will bring up the “Import certificate” dialog.

Create button

If you are unable to select or import a certificate, you can create your own certificate by clicking on the **Create** button. This will bring up the “Create certificate” dialog.

8.13.1.1 Import certificate



Certificate file

Find the certificate file you want by using the **Browse** button.

Certificate

Once you have selected a certificate file, the certificate dropdown list will be populated with a list of certificates that the file contains (in most cases a certificate file contains a single certificate, but sometimes it contains more). Use the dropdown arrow to select the certificate you want from that file. Any properties of that certificate will be displayed in the Properties section.

Click the **Import** button to complete the import process and return to the Select Certificate dialog.

Help

If you need more information about the fields on this page and how to fill them in, click on the **Help** button.

Cancel

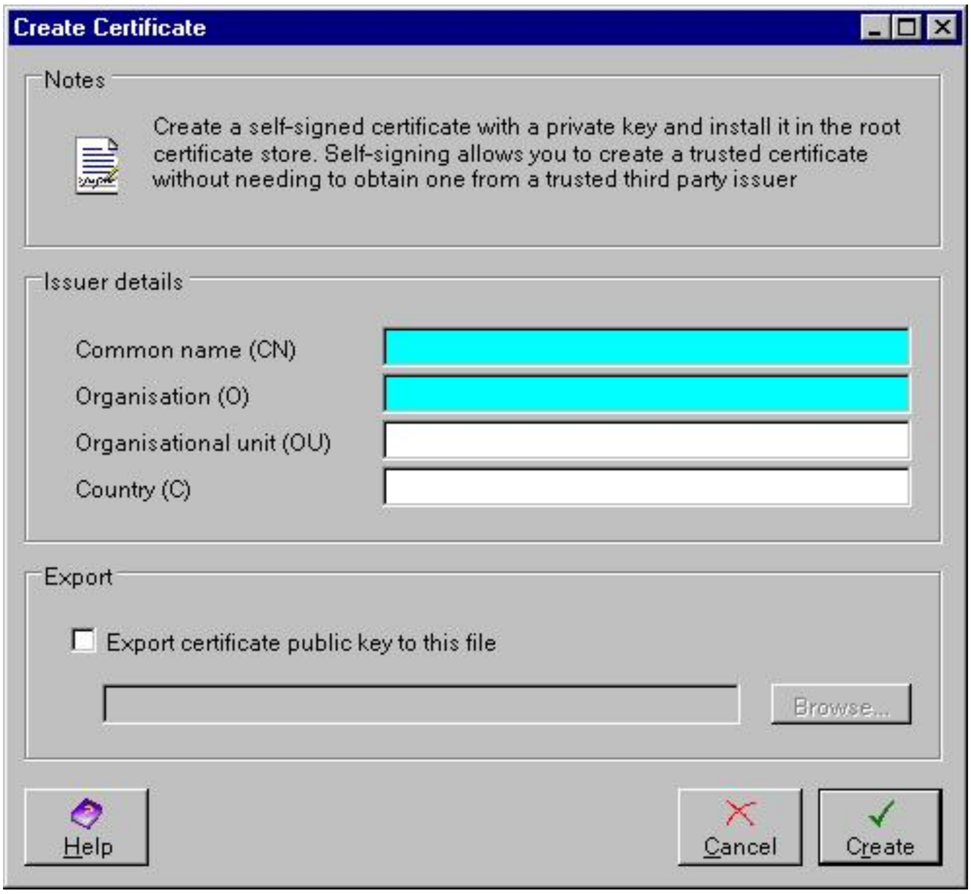
If you want to discard all the changes you have made, click the **Cancel** button.

Import

To import the certificate you have selected, click the **Import** button.

8.13.1.2 Create certificate

This dialog allows you to create a self-signed certificate with a private key and install it in the root certificate store. Self-signing allows you to create a trusted certificate without needing to obtain one from a third-party issuer.



The issuer details allow you to provide information that can be viewed in the Properties section when choosing a certificate.

Issuer details – Common name

Type in the common name that you wish to give to this certificate.

Issuer details – Organisation

Type in the name of the organisation with which this certificate is associated

Issuer details – Organisational unit

Type in the name of the organisational unit with which this certificate is associated

Issuer details – Country

Type in the name of the country in which this certificate was issued.

Export – tickbox

If you wish to export the public key for this certificate to another file, select the tickbox and use the **Browse** button to choose the name and location of the file to which you want to export it.

Once you have provided the required details, click the **Create** button to create the certificate. You will be returned to the Select certificate dialog, where you will now see that your self-signed certificate has been added to the root certificate store and can be selected. The Issuer details you provided on the Create certificate dialog can be viewed in the Properties section against the 'Issuer' caption.

9 Using the software

9.1 Introduction to the Submissions application

Once you have configured the BACS.IP system, using the Administrator, you can use the software to connect to BACSTEL-IP. The Submissions application handles everything relating to the BACS financial services system and is divided into four sections: Payment Files, Active Submissions, Archived Submissions and Reports.

Payment files will be imported into the Submissions application, either as payment files or as active submissions (depending on the configuration set up for individual service users).

Even if payment files are imported as active submissions, they will still be accessible from the Payment Files page of the Submissions application.

Certain details of payment files can be amended, if necessary, from the Payment Files page.

If they are not already part of a submission, they can be used to create an active submission.

> *An active submission is created in one of two ways, determined by the configuration setting:*
>
> *Automatically, on import from a monitored directory*
>
> *Manually, by selecting one or more imported payment files to create a submission*

Validation of the payment file account details occurs when you attempt to sign a payment file or an active submission. This is called pre-submission validation. For more details, please refer to the section entitled "Pre-submission validation".

Every submission, containing one or more payment files, has to be signed before it is sent to BACS.

The electronic signature uses valid PKI credentials belonging to a contact that has a valid link to the service user number used in the submission.

Your bank will have decided whether payment files from your service user also have to be signed or not. If they have decided that payment files must be signed, then the signature on the payment file will be validated when BACS receive the file.

If you are not required by the bank to sign payment files, you may still sign them if you wish to do so, for added security. The signature will be validated by BACS.

Payment files may be signed by someone other than the contact who signs the submission, providing both signers have a valid link to the service user and the appropriate privileges given to them.

Submissions and payment files should be signed on the same day as they are sent to BACS, preferably immediately before sending. This will minimise the risk of digital certificates expiring between the signing and the sending. It will also help to avoid the possibility of the processing date of the submission becoming invalid.

Once the submission has been successfully signed by an authorised user it can be sent to BACS. Before it arrives at BACS the transmission may fail for some technical reason or it may be aborted by the user. If this happens, the submission will have to be signed again before it can be re-sent.

Once a submission has arrived successfully at BACS and passed their validation process, BACS will create reports to notify the service user of each payment file's progress through the BACS system. These reports can be downloaded and looked at in detail on the Reports page of the Submissions application.

If you submit a payment file by mistake, you can contact your bank or building society to request the withdrawal of the payment file, as long as you do so on or before input day. Removing a payment file will result in the creation of a withdrawal report.

For each payment file that has not been rejected or withdrawn, an input report will be created. Once you have downloaded and read the Input report for a specific submission, the submission can be archived. Archiving may be done automatically, using the File Retention section of the Administrator, or manually, depending on your preference.

The process is shown in diagrammatic form below. Green areas show the normal processing stages, while the purple areas show the different points at which the normal processing can be diverted. The Arrival report, in yellow, will only be created if certain errors are detected within the submission or file. For more information, please refer to the section entitled "BACS responses".

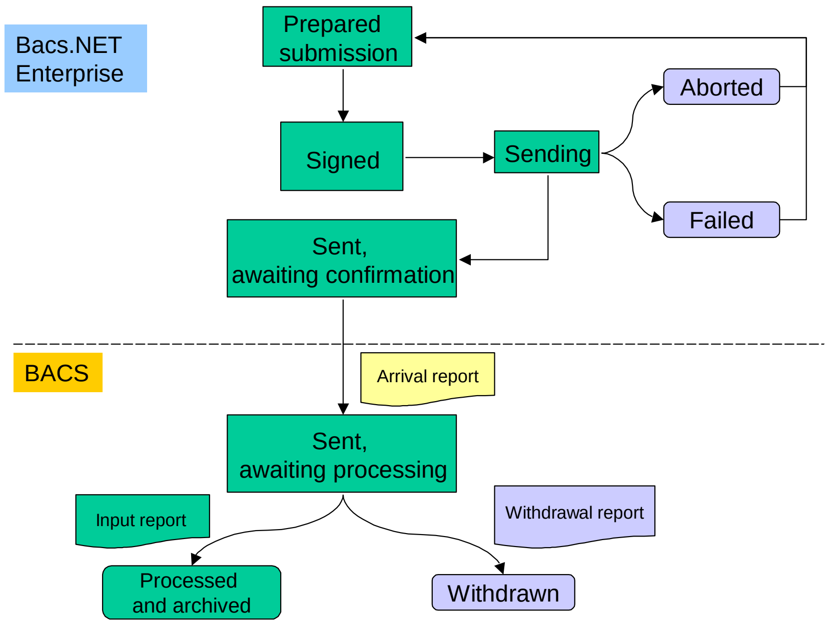


Figure 4 - Submission processing

9.1.1 BACS responses

9.1.1.1 Rejection Arrival report

As mentioned above, BACS will create reports at different stages of a file's progress through its system. The first report you may receive in response to a submission is the Rejection Arrival report. Certain validation will be done on the file on the day the submission arrives at BACS. If the validation is successful, the file will then be held in suspense until the input day arrives. (The arrival day may be the same as the input day, but files can be submitted in advance of input day). However, if errors are detected within the submission or file, a Rejection Arrival report will be produced.

The most common reason for rejection on arrival is BACS' detection that a duplicate payment file has been submitted (i.e. the same payment file has been submitted more than once for the same processing day).

9.1.1.2 Input report

When input day arrives, full validation will be carried out on the submission, using the full set of reference data held by BACS. This stage of the process will result in the creation of an Input report. If any errors are detected at this stage, an Input Report indicating the reason for rejection will be produced.

9.1.2 The BACS Processing Cycle

The steps involved in BACS receiving and processing a submission and the payment instructions being applied to the destination bank/building society accounts is called the processing cycle. For full details please refer to Section 2.6 of the BACS Service User Guide.

The processing cycle has three stages:

- Input date – the date on which BACS performs full validation of the payment files in a submission
- Processing date – the date on which processing of the data occurs at the destination banks/building societies
- Entry date – the date on which payment instructions are applied to the destination accounts

The processing cycle currently takes a minimum of three days. In this cycle, each of the three stages takes place on consecutive "BACS processing days".

9.1.2.1 BACS Processing Days

Input to BACS full validation and processing of payment instructions can only happen on "BACS processing days". Days on which BACS will not validate or process data include Saturdays, Sundays and English bank and public holidays. Some other bank holidays may also be included in the non-processing days. All other days are BACS processing days.

9.1.2.2 Processing date

When you create a payment file, you have to specify a processing date on which the payment file should be processed by BACS.

> *N.B. If the date you specify is not a BACS processing day, the BACS.IP software will replace that date with the next available BACS processing date following the one you specified.*

The processing date you specify may be up to 31 days after the current date when the payment file is submitted.

9.1.2.3 Submissions window

There are specific times when you are able to send your submissions to BACS, called the submissions window. The window runs from 07.00 on Monday morning until 22.30 on Friday evening, with the exception of any non-processing days.

BACS input for the processing day rolls over at 22.30 each evening. All submissions received by BACS by 22.30 will be input for the current day and processed on the next valid processing day (unless their processing date is in the future). Any submissions not received by that time will not be input until the next valid input day.

9.1.2.4 When will the processing cycle take longer than three days?

There are several situations in which the processing cycle will take longer than three days.

- You specify a processing date in the payment file that is up to 31 days after the current date.
- The processing date in the payment file is not a BACS processing date and has to be replaced by the next available processing date.
- You submit the payment file too late to have it processed on the day of submission.

9.1.3 Security in BACSTEL-IP

PKI technology is used by BACSTEL-IP to authenticate the data originator and to ensure the integrity of the data that is sent to them. Using PKI technology they can be sure that the data has not been intercepted or changed by a third party.

When a contact connects to BACSTEL-IP or transmits a submission, his digital signature is used to carry out security checks. This is done by your signing software. The contact simply has to initialise the signing and enter his PIN number.

Before establishing a secure encrypted communications session between BACS.IP and BACSTEL-IP, the PKI technology is used to authenticate the system user who is trying to make the connection. If the system user cannot be authenticated, the communications session will not be initialised.

Once the communications session has been established i.e. authentication was successful, the system user can transmit one or more submissions. Each submission will have been digitally signed, either by this or another system user, and this signature will be used by BACSTEL-IP to check that the data within the submission has not been intercepted or changed by a third party.

9.1.3.1 Digital certificates

Digital certificates are held on the smart card issued to your company by BACS or by your bank or building society. Anybody who wants to connect to BACS needs a certificate, even if only to retrieve reports. The certificate is used to create a digital signature.

For further information, please refer to section 3.4 of the BACS Service User Guide.

9.1.4 Security in the Submissions application

There are three distinct layers of security in the Submissions application. These are:

- Logon security - Username and password required to logon
- Permissions security - Restrictions on what individual users can do
- BACS security - Application of BACSTEL-IP security requirements when creating submissions and when connecting to BACSTEL-IP

Nobody can gain access to the BACS.IP system unless they logon using their username and password.

Once logged on, each user is restricted in the actions he can perform, depending on the configuration of his user details in the Administrator.

Users with permission to access BACSTEL-IP must comply with the security requirements of BACSTEL-IP. This means that they must use their smart card certificate to provide a digital signature on submissions they create and to identify themselves when logging onto BACSTEL-IP or downloading reports.

All these security aspects together make the Submissions application as secure as possible using current technology. All you have to take care of is the human error element. Each system user has the responsibility to ensure that he logs off whenever he leaves his desk unattended, never allows his username and password to be made known to unauthorised personnel, and never allows his smart card to be used by unauthorised personnel.

9.1.4.1 Logging on to BACS.IP

Whenever you want to use the BACS.IP system, you have to logon using the username and password assigned to you in the Administrator. If you forget your password you must ask your BACS.IP system administrator to reset it for you.

9.1.4.2 Permissions security

This area of BACS.IP security is as restrictive or as loose as you have made it, depending on the way you have set up the permissions for each system user in the Administrator.

Ideally you will have thought about which users should be given smart cards and which functions they should be allowed to perform, and allocated them to the appropriate security groups.

9.1.4.3 BACS security

PKI credentials (i.e. a smart card containing a valid certificate) are required in order to carry out the following actions:

- Logon to BACSTEL-IP
- Sign payment files and submissions
- Submit payment files
- Access BACS reports

9.1.4.4 Signing

Every submission, containing one or more payment files, has to be signed before it is sent to BACS.

The electronic signature uses valid PKI credentials belonging to a contact that has a valid link to the service user number used in the submission.

Your bank will have decided whether payment files from your service user also have to be signed or not. If they have decided that payment files must be signed, then the signature on the payment file will be validated when BACS receive the file.

If you are not required by the bank to sign payment files, you may still sign them if you wish to do so, for added security. The signature will be validated by BACS.

Payment files may be signed by someone other than the contact who signs the submission, providing both signers have a valid link to the service user and the appropriate privileges given to them.

Submissions and payment files should be signed on the same day as they are sent to BACS, preferably immediately before sending. This will minimise the risk of digital certificates expiring between the signing and the sending. It will also help to avoid the possibility of the processing date of the submission becoming invalid.

9.1.4.5 Pre-submission validation

Whenever you attempt to sign a submission or a payment file, some checks will be performed prior to the successful signing.

Checks are made in the following areas:

- The basic file structure
- Processing dates (are they valid BACS processing dates)
- Originating account details
- Transaction codes (a code representing the type of transaction the payment instruction is)
- Destination account numbers
- Destination sort codes

The account number and sort code must be found on the list, updated frequently from BACS records, against which BACS.IP makes its checks.

If pre-submission validation is unsuccessful, you will see a dialog listing any errors that were found. You should try to correct these before attempting to sign the file again.

Pre-submission validation may also generate warning messages. These do not prevent you sending the submission to BACS, but you should read the warning messages carefully to find out what the result will be of not amending the submission.

9.2 Application features

9.2.1 Page tab banner

The page tab banner is the pale yellow banner you can see just below the level of the page tabs. It indicates which page you are currently looking at, and the filter settings for that page.

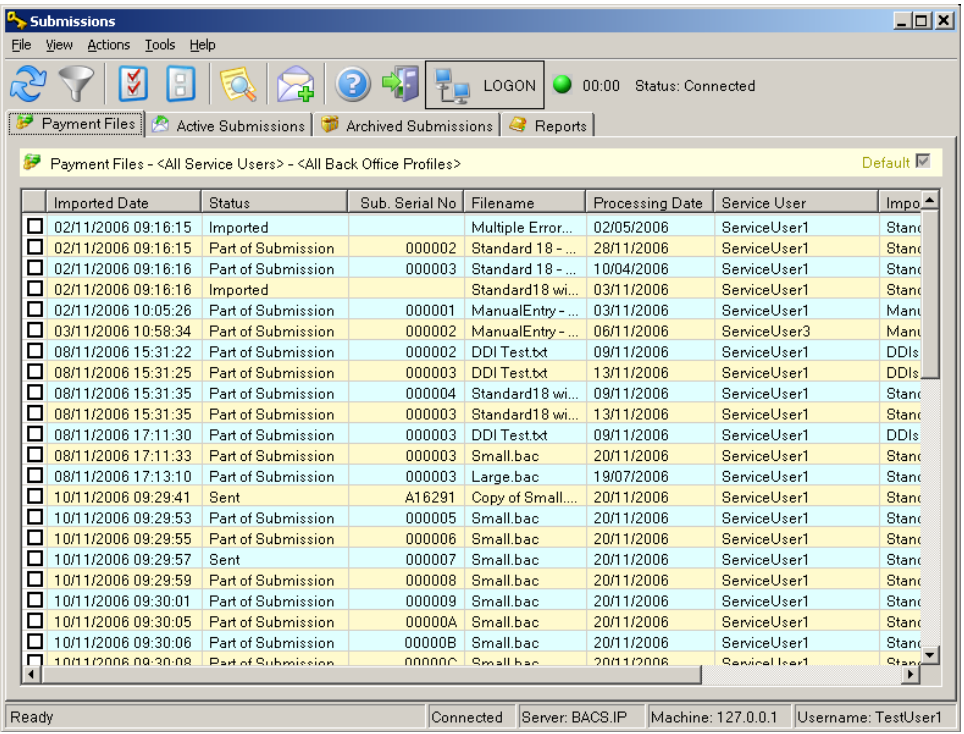
9.2.2 Default pages

The Submissions application consists of a number of pages. The pages you will be able to see, as an individual system user, will depend on the privileges you have been given by the administrator. For example, if you have been given permission to sign submissions and read reports received from BACS, you will be able to see the Active Submissions page and the Reports page.

However many pages you have access to, you will see that at the right-hand side of the yellow page tab banner is a tickbox labelled "Default". This allows you to choose which of the available pages you wish to be presented to you by default when you open the Submissions client.

9.2.3 Logon status bar

From every page of the Submissions application you will be able to see the current status of your connection to your network and your connection to BACS, shown to the right of the toolbar. This can be seen in the dialog shown below.



The logon status bar consists of a green LOGON button, a timer and a status indicator.

9.2.3.1 Status Indicator

The Status indicator tells you what is happening during your connection to BACS. If you are using a LAN connection, the status should be "Connected" whenever you start using the Submissions application, unless you are having network problems. If you are using a modem to connect, the status will be "Disconnected" until you dial up. When you begin to send submissions to BACS or download reports from BACS, the status will change to tell you exactly what is happening e.g. Downloading Input report.

9.2.3.2 Logon button

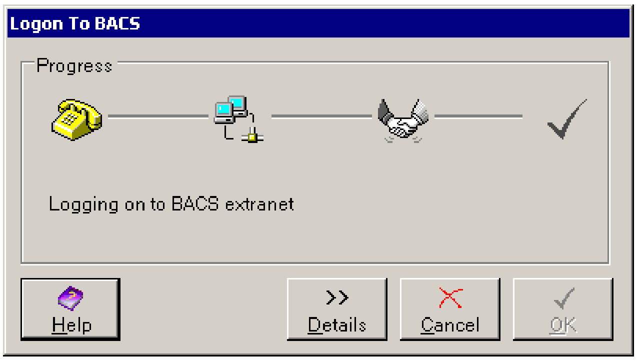
The LOGON button toggles between LOGON and LOGOFF. If you are currently logged onto BACS, it will read "LOGOFF". If you are currently logged off, it will read "LOGON". You may use the LOGON button to logon to BACS but this is not necessary, as any action you perform from the menu or toolbar which requires a connection to BACS will automatically attempt to log you on. For details of the Logon to BACS dialog, please refer to the section entitled "Logon to BACS".

9.2.3.3 Timer

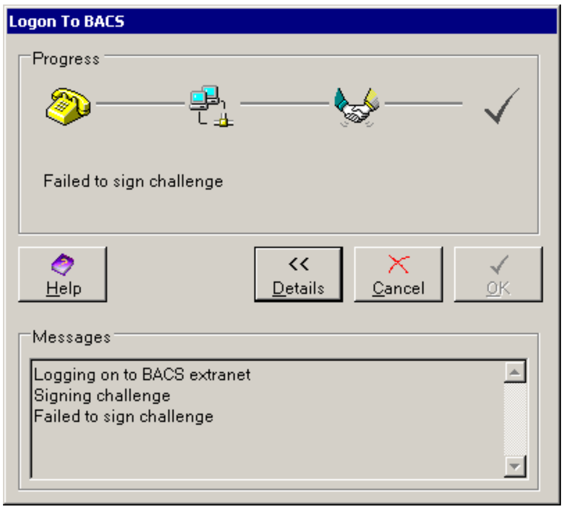
The timer on the Logon status bar shows you how long you have been connected to the BACS network. This is of most interest to those people using a modem, who can use it to see how long they have been connected, as they may want to avoid being connected for long periods. You can force the connection to be disconnected after a certain duration of inactivity, by setting a suitable Timeout value in the Communication Settings section of the Administrator.

9.2.4 Logon to BACS

The Logon to BACS dialog is shown below. It displays the current status of your attempt to logon to BACS.



Full details of the logon process can be seen by clicking the **Details** button, as shown below.



Press the **Details** button again to hide the Messages section.

Unable to sign challenge from BACS

When you attempt to logon to BACS, your smart card has to be in the card reader so that the challenge from BACS can be signed. If the signing fails, it may be for one of the following reasons:

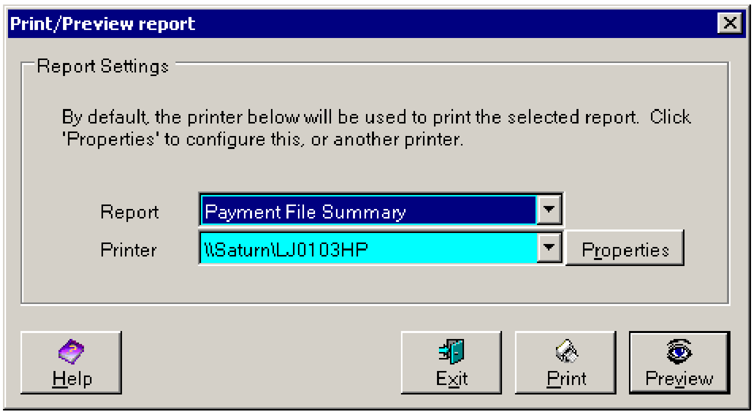
- The smart card reader is not correctly installed. Check the documentation of your bank's chosen signing solution to ensure it is properly installed.
- The smart card is not ready to be used for signing. Some cards are shipped with a "Transportation" or "Initialisation" PIN number. This PIN must be entered, and a user PIN number set up before the card can be used for any purpose.
- The smart card is not correctly inserted. Try removing the card and re-inserting it slowly.

Try and rectify the situation and then attempt the logon again.

9.2.5 Print Report

This option is available from the File options menu of all the Submissions application views. However, the dialog described below is only available from the Payment Files, Active Submissions and Archived Submissions views. If you select this option from the Reports view, the report will be sent to your default printer immediately, without the option to preview. This is because BACS reports are of a different type from BACS.IP reports.

This option allows you to preview and/or print a report available from the current view. Select one or more files from which to create a report and choose **File >> Print** from the main menu. This will bring up the Print/Preview report dialog, shown below:



Report

Use the dropdown arrow to select the report you want to create. The report types in the list will differ according to which view you currently have open:

Payment Files view – Payment File Summary report and Validation Report

Active Submissions view – Submission Summary report, Audit Trail report and Validation Report

Archived Submissions view – Submission Summary report, Audit Trail report and Validation Report

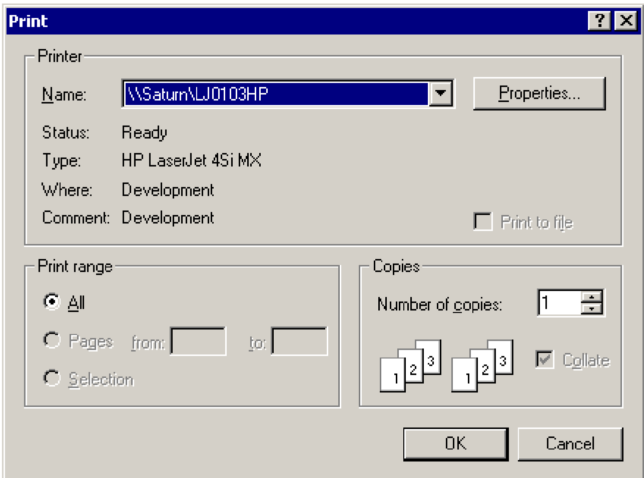
Reports view – not applicable.

Printer

By default, the printer shown in this field will be used to print the selected report. Use the dropdown arrow if you want to select a different printer for this report. All printers currently installed on your machine will be included in the list.

Properties

You may use the **Properties** button to bring up the Windows Print dialog. This dialog enables you to change the settings of the default printer or to choose a different printer and configure its settings.



Click **OK** from this dialog to return to the Print/Preview report dialog.

Exit

Click the **Exit** button to close the Print/Preview report dialog.

Print

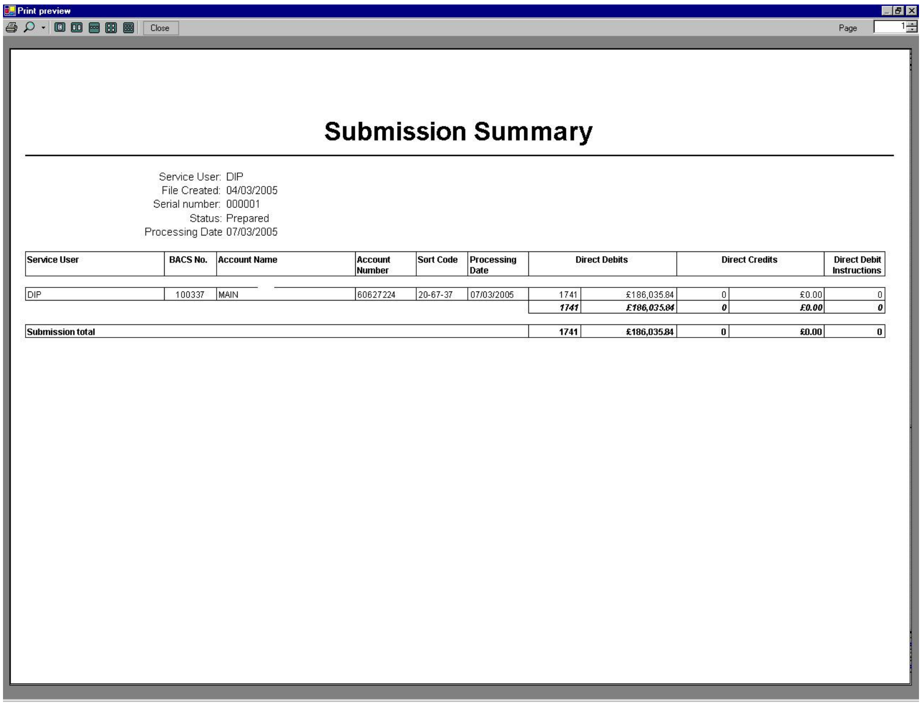
Click the **Print** button to print the report on the selected printer.

Preview

Click the **Preview** button to preview the report on the screen. You may then print it if you wish, either using the Print icon in the top left-hand corner of the Print Preview screen, or by closing the Print Preview screen and clicking the **Print** button on the Print/Preview report dialog.

Sample report

The diagram below shows a sample Submission Summary report.



Submission Summary

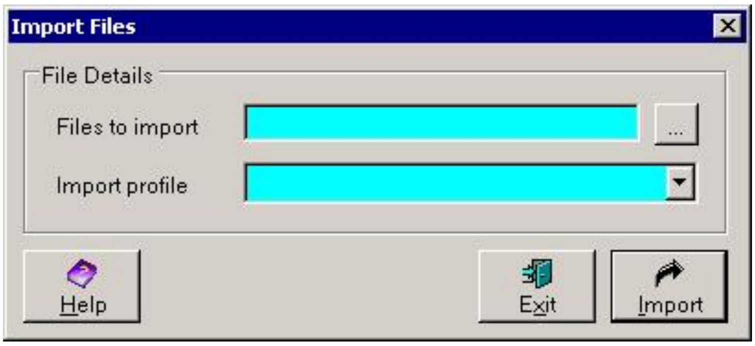
Service User: DIP
File Created: 04/03/2005
Serial number: 000001
Status: Prepared
Processing Date 07/03/2005

Service User	BACS No.	Account Name	Account Number	Sort Code	Processing Date	Direct Debits		Direct Credits		Direct Debit Instructions
DIP	100337	MAIN	60627224	20-67-37	07/03/2005	1741	£186,035.84	0	£0.00	0
						1741	*£186,035.84*	*0*	*£0.00*	*0*
Submission total						**1741**	**£186,035.84**	**0**	**£0.00**	**0**

This report, which is especially useful for bureau users, shows summary information for each payment file in the selected submission.

9.2.6 Import File

This option is available from the File options menu of every Submissions application view. It allows you to import payment files manually into BACS.IP. If you select this option, you will see the following dialog:



Files to import

Type in the full path and filename, or use the browse button, to select the location of the file to be imported.

Import profile

Use the dropdown arrow to select the appropriate import profile for the file to be imported. The list will display all the import profiles you have configured in the Back Office section of the Administrator.

9.2.7 Filters

Each page of the Submissions application has a filter option, available from the View menu option or by using the Filter icon in the tool bar. The filter allows you to select various criteria in order to determine which files or reports will be displayed to you on the current page.

Common to all the filters is the Date section, either Processing Date, Date Processed or Report Date. This area allows you to select a specific date or time period for which you want to view files or reports. By default, the All dates option is selected. If you want to change this setting, please read the following sections.

9.2.7.1 Changing the time period

If you want to see something other than today's messages, you need to select a different radio button in the Processing Date section.

To do this using the mouse, simply point the cursor at the required radio button and click the left mouse button. The black spot will now appear in that radio button, to indicate your selection.

Alternatively, using the keyboard, use the **Tab** key to move the focus around the dialog until the focus is on one of the five radio buttons, then press the up, down, left and right arrows until the required button contains the black spot to indicate your selection.

> *Focus is the term we use to indicate the active field on the dialog. To recognise it, you will either see a dotted border around the relevant button name or a blue highlighted entry in a listbox. It is sometimes difficult to see when the focus is on a tickbox. In this case, you can only find it by a process of elimination (i.e. when the focus is not on any other button/listbox).*
>
> *Warning – when the focus is on the From Date or To Date, using the up and down arrows will increase and decrease the date respectively. Use the tab key to move the focus off the From Date and To Date.*

Your five choices are as follows:

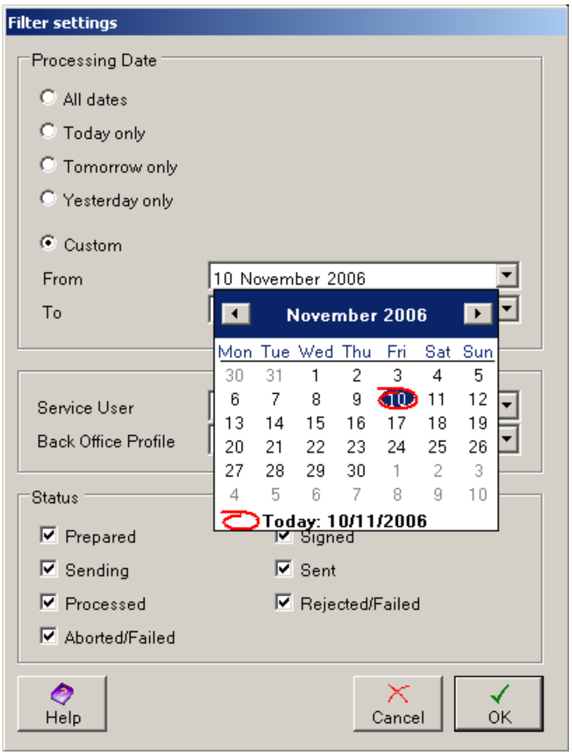
- See all dates
- See only today's files
- See only tomorrow's files
- See only yesterday's files
- Select a time period for which you want to see messages, using the From and To fields (this is the Custom option)

Custom

If you select the **Custom** option, you will see that the From Date and To Date data boxes become available to you (i.e. they are no longer greyed out). To change the dates shown, you have two options:

Highlight the part of the date you want to change, either using your mouse or by using the left and right arrows on your keyboard. Then change that part of the date by using the up and down arrow keys on your keyboard.

Alternatively, with the mouse use the dropdown arrow to the right of the date you want to change. This will bring up a calendar dialog like the one shown below:

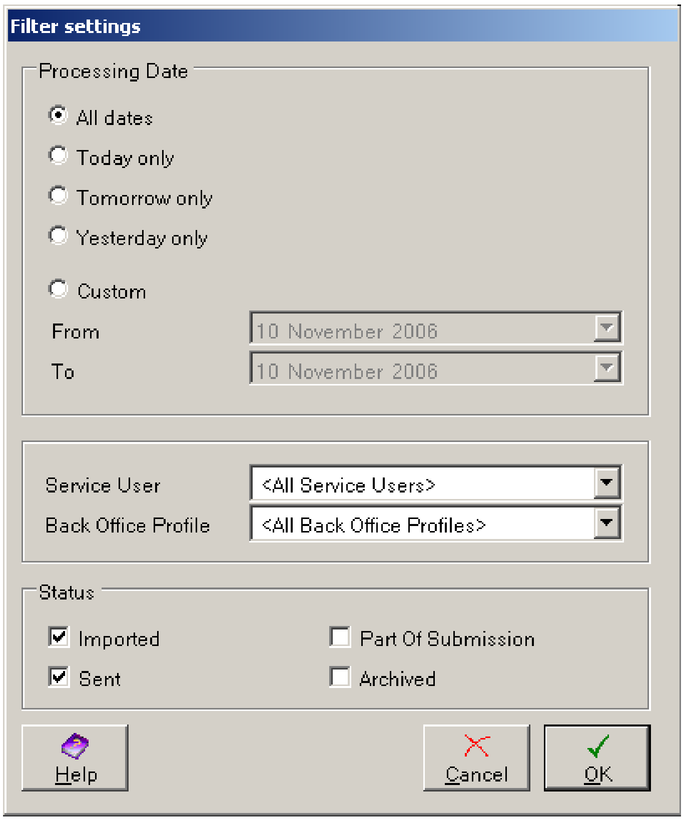


The red ring indicates today's date, and the blue mark indicates the date currently shown on the filter dialog. Use your mouse or your keyboard up and down arrows to select the date you want. The left and right arrows at the top of the calendar dialog enable you to change the month (left goes back in time, right goes forward in time).

Clicking a date with the left mouse button will return you to the filter dialog with the new date. If you are using the keyboard, press the **Enter** or **Return** button on your keyboard to return to the filter dialog with the new date.

9.2.7.2 Payment Files filter

The Payment Files filter has three sections: Processing Date, Service User/Back Office Profile, and Status, as shown below.



To begin with, the filter is set to certain default settings which you will see when you open the filter. The default settings for the Payment Files filter are as follows:

- Show files for all dates
- Show files for all service users
- Show payment files with the status of Imported and Sent

You will see that the From and To date fields are "greyed out". You will not be able to change the data in those fields unless you select the Custom option, which allows you to select a range of dates.

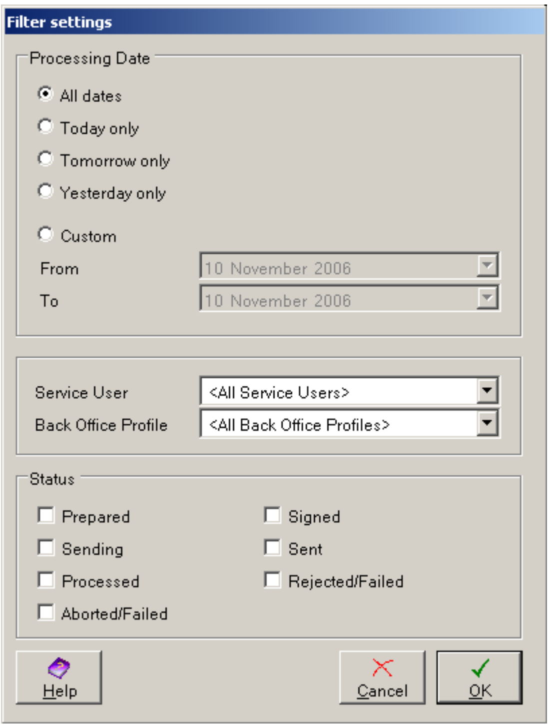
You can restrict the payment files that are shown in the submissions client to a particular service user by selecting one from the drop down list. Selecting a particular back office profile will also limit what you see in the submissions client. This is useful if you have multiple payment files imported from different back office profiles and only wish to view ones from a particular import type.

Payment Files Filter – Status

It is also possible to specify the status of the payment file. You can restrict the view to only show payment files that have been Imported, Sent, Archived or Part of a Submission by ticking the appropriate check box.

9.2.7.3 Active Submissions Filter

The Active Submissions filter has three sections: Processing Date, Service User/Back Office Profile and Status, as shown below.



To begin with, the filter is set to certain default settings which you will see when you open the filter. The default settings for the Active Submissions filter are as follows:

- Show files for all dates
- Show files for all service users
- Show all file statuses

You will see that the From and To date fields are "greyed out". You will not be able to change the data in those fields unless you select the Custom option, which allows you to select a range of dates.

You can restrict the active submissions that are shown in the submissions client to a particular service user by selecting one from the drop down list. Selecting a particular back office profile will also limit what you see in the submissions client. This is useful if you have multiple submissions imported from different back office profiles and only wish to view ones from a particular import type.

Active Submissions Filter – Status

It is also possible to specify the status of the submission. You can restrict the view to only show submissions that are Prepared, Signed, Sending, Sent, Processed, Rejected or Aborted by ticking the appropriate check box.

9.2.7.4 Archived Submissions filter

The Archived Submissions filter has two sections: Date Processed and Service User/Back Office Profile, as shown below.

To begin with, the filter is set to certain default settings which you will see when you open the filter. The default settings for the Archived Submissions filter are as follows:

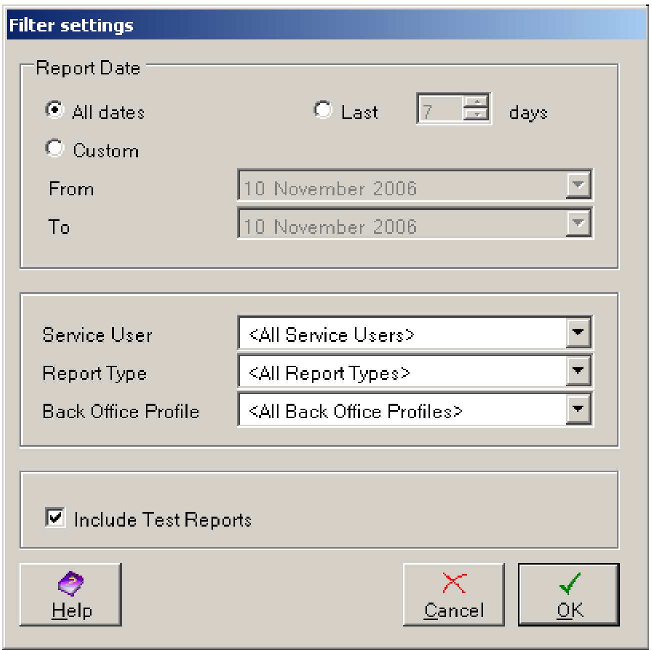
- Show files for all dates
- Show files for all service users

You will see that the From and To date fields are "greyed out". You will not be able to change the data in those fields unless you select the Custom option, which allows you to select a range of dates.

You can restrict the archived submissions that are shown in the submissions client to a particular service user by selecting one from the drop down list. Selecting a particular back office profile will also limit what you see in the submissions client. This is useful if you have multiple submissions imported from different back office profiles and only wish to view ones from a particular import type.

9.2.7.5 Reports filter

The Reports filter has three sections: Report Date, Service User/Report Type/Back Office Profile and Include Test Reports, as shown below.



To begin with, the filter is set to certain default settings which you will see when you open the filter. The default settings for the Reports filter are as follows:

- Show files for the last 26 days
- Show all service users
- Show all report types

You will see that the From and To date fields are "greyed out". You will not be able to change the data in those fields unless you select the Custom option, which allows you to select a range of dates.

You can restrict the reports that are shown in the submissions client to a particular service user by selecting one from the drop down list. Selecting a specific report type will restrict the view to only show details for that type of report.

Selecting a particular back office profile will also limit what you see in the submissions client. This is useful if you have submission results reports imported from different back office profiles and only wish to view ones from a particular import type.

The use of (T) following some reports in the Report Type list is an indication that these are test reports. If you want to include test reports in the list returned to you, please ensure that this checkbox is selected.

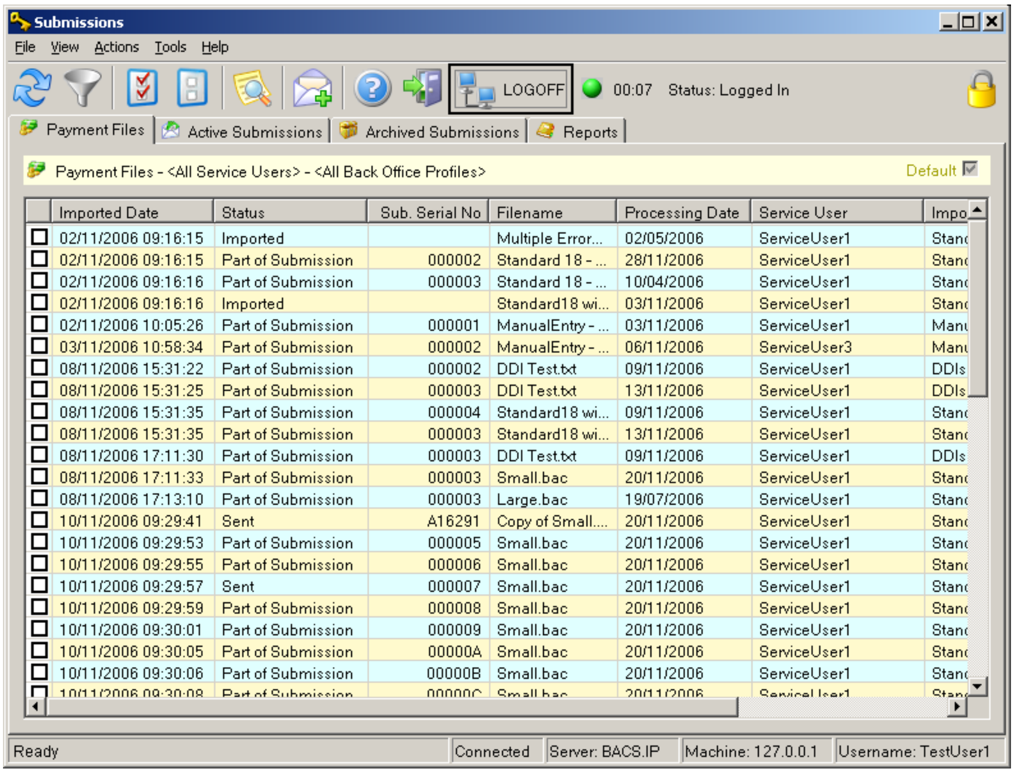
9.3 Payment files

This page displays a list of all payment files currently in the BACS.IP system.

If you are a service user configured to create submissions on import, all newly-arrived payment files will have the status "Part of Submission". This means that each payment file on this page is contained in a submission listed on the Active Submissions page.

If you are a bureau, or a service user not configured to create submissions on import, all newly-arrived payment files will have the status "Imported". This means that these payment files are not yet included in a submission.

The Payment Files page allows you to perform a variety of actions, such as signing a payment file, importing, editing or deleting a payment file, viewing a summary or creating a submission from one or more payment files.



9.3.1 Menu bar

The menu bar of the Payment Files page contains four options:

- File
- View
- Actions
- Help

Selecting any of these options will present you with another list of options.

File option

The File option allows you to do the following:

- Import a payment file manually to BACS.IP. For full details of this option, please refer to the section entitled "Import File".
- Print a Payment File Summary report. For full details of this option, please refer to the section entitled "Print Report".
- Exit from the BACS.IP Submissions application

View option

The View option allows you to do the following:

- Refresh the view (show the results of any updating or editing you have done in this view)
- Filter the view. This means you can select a specific time period or a specific start and end date for which you want to see payment files. You can also select a specific service user or serial number, and specific file statuses, such as Imported or Sent. For full details of this option, please refer to the section entitled "Payment Files filter".
- Select all the entries in the view
- Deselect all the entries in the view

Actions option

The Actions option allows you to do the following:

- Edit the processing date of a payment file
- Create a submission containing one or more payment files
- Delete a payment file

Help option

The Help option gives you access to the following:

- Contents – the page(s) of the BACS.IP on-line Help manual that describe and explain the page you are currently looking at
- About – a dialog giving technical details about the BACS.IP Submissions application
- Online Support – provides direct access to the Data Interchange Plc website
- Payment Services website – provides direct access to the BACS Payment Services website

9.3.2 Tool bar

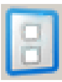
The Payment Files tool bar duplicates many of the menu bar options, but generally you will find only the most commonly used options in the main tool bar.

This tool bar contains 9 options. Although all options will always be present, they will only work if you have been given sufficient privileges by the BACS.IP Administrator.

 This is the Refresh option. The Refresh option updates the contents of the page to show the results of any updating or editing you have done in this view.

 This is the Filter option. The Filter option allows you to select a specific time period or a specific start and end date for which you want to see entries in the data area.

 This is the Select All option. The Select All option allows you to select all the entries on the current page, in order to perform an action on them.

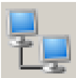
 This is the Deselect option. The Deselect option allows you to deselect all the currently selected entries on the current page.

 This is the View Summary Report option. This option creates a preview of a Payment File Summary report created from one or more selected payment files. The report can be printed from the preview screen.

 This is the Create Submission option. This option allows you to create a submission containing the selected payment file(s).

 This is the Help option. The Help option takes you to the page(s) of the BACS.IP on-line Help manual that describe and explain the page you are currently looking at.

 This is the Exit option. The Exit option closes the BACS.IP Submissions application.

 This is the Logon to BACS option. The software will immediately attempt to logon to BACS, and will bring up a Logon to BACS dialog, showing the progress of the current communications activity. You will need your smart card and PIN to use this option.

9.3.3 Data area

The Payment Files data area is where details of payment files will be displayed.

Data displayed will be as follows:

Imported Date – the date on which the payment file was imported into BACS.IP

Status – the current status of the payment file e.g. Processed.

Valid statuses are:

- Imported – the file has been imported
- Part of Submission – the file has been included in a submission
- Signed – the file has been signed
- Sent – the file is part of a submission that has been sent to BACS

Sub. Serial No – the serial number of the submission to which this payment file belongs. This column will be blank until the file has been included in a submission.

Filename – the name of the payment file, as it can be found in the directory from which it was imported.

Processing Date – the date on which this payment file is to be processed by BACS. If no processing date is provided in the file, the processing date shown here will be the following day's date. The processing date may be up to 31 days after the date on which the file is to be received by BACS.

Service User – the name of the service user that created this payment file.

Import Profile – the type of file from which the payment file was created e.g. Standard 18.

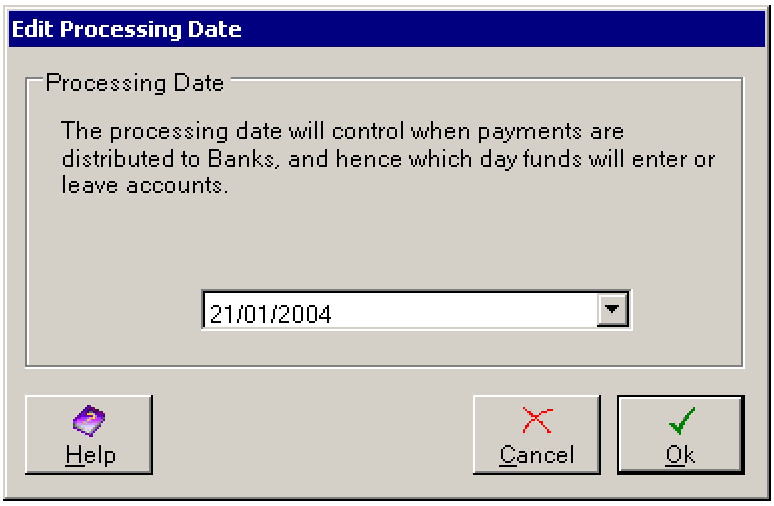
Back Office Profile – the name of the back office profile that was used to import the file. If the file was not imported through a back office profile, this field will be blank.

9.3.4 Payment Files – Actions

Let's take a closer look at the actions you can perform on the payment files.

9.3.4.1 Edit processing date

Select this option to edit the processing date of a selected payment file. If this is a valid action to perform on the selected file, the dialog below will be displayed.



The software will automatically display the next valid processing date. You may choose to use this date by pressing the **OK** button, or you may choose a different date by using the dropdown arrow to select from the calendar presented to you.

Since BACS processing rules state that the processing date cannot be any earlier than the day following the current day, the software will not allow you to choose a date that contravenes this rule.

Similarly, if the date you choose is not a valid BACS processing date (e.g. a Saturday), when you click **OK** to return to the Payment Files page you will see a message box telling you that this is not valid and advising you of the next valid date you may use.

However, if the file is a multi-processing date file, you will not be allowed to edit the processing date at all. Instead you will see the message box below.

This is because the processing date of a multi-processing date file is implicit in the processing dates specified against each instruction.

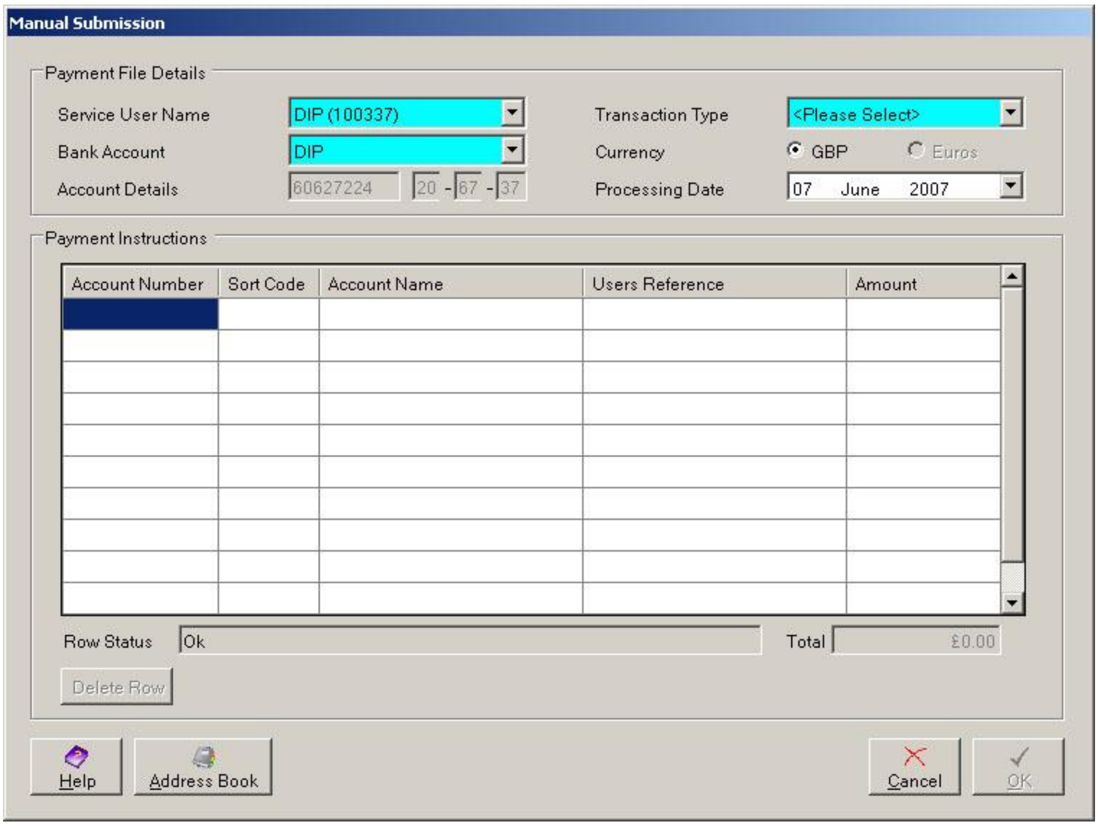
9.3.4.2 Manually Create or Edit a Payment File

Select this option if you wish to create or edit a payment file manually. This feature requires the system user to have the necessary security privileges selected in the BACS.IP Administrator.

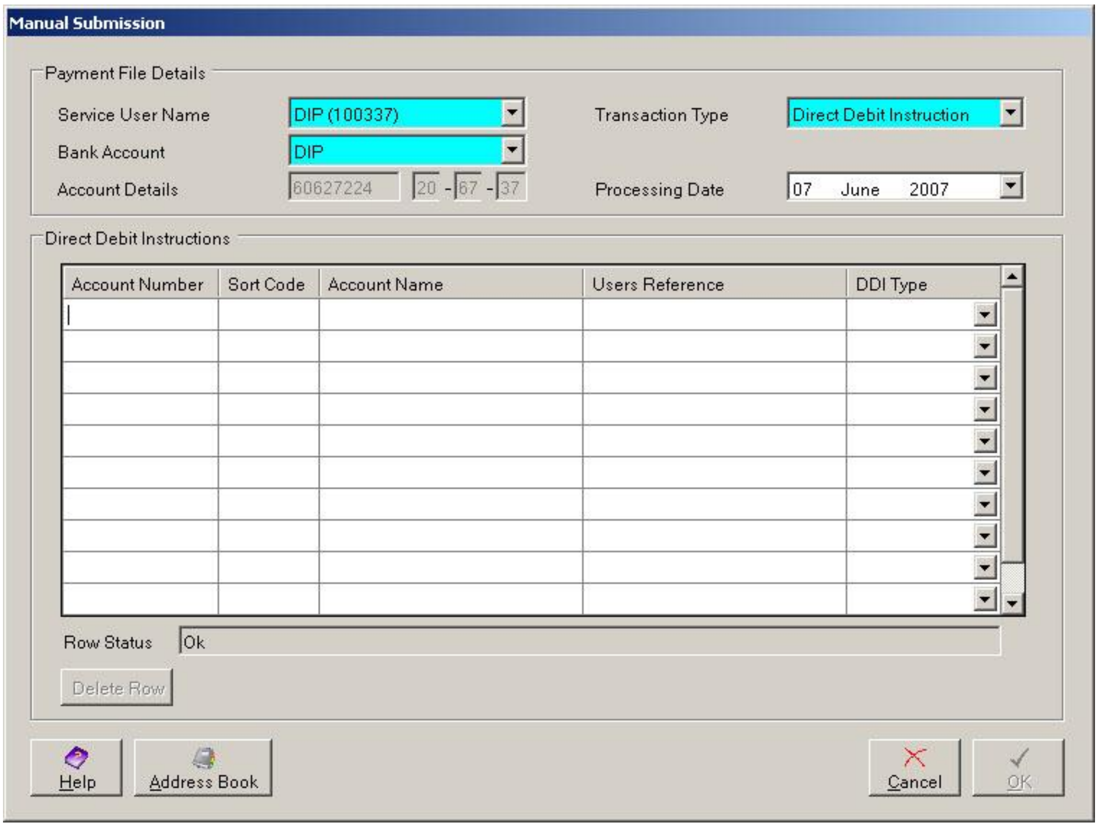
If the current user has these privileges, the dialog below will be displayed when either of the menu options are clicked. If you are creating a new payment file, then the Payment Instructions table will be blank. Whereas if you are editing an existing payment file, the payment instructions section will be populated with all the transactions relating to that payment file. It is possible to edit payment files that have been created manually using this dialog, or edit payment files that have been imported so long as they meet the necessary criteria.

It is possible to create or edit Direct Debits, Direct Credits and Direct Debit Instructions. There are two possible layouts for this dialog depending on the type of transaction you have selected.

Layout 1: For Direct Debits and Direct Credits



Layout 2: For Direct Debit Instructions



There are two sections to this dialog, the Payment File Details section defines the type of transaction that will take place and the originating bank account details, while the Instructions section defines each payment transaction that is to be processed, use one row per payment instruction or direct debit instruction.

The values in the Instructions table can be edited by mouse click, pressing F2 or typing the value in directly. You can move from cell to cell by using the arrow keys, tab or return.

The details of each section are as follows,

Payment File Details – Service User Name

This is a list of all the service users that are linked to the currently logged in system user. You can choose which service user you wish the transactions to take place for. When creating a new payment file, this list will default to the first Service User available. If you are editing an existing payment file, it will default to the Service User that it relates to.

Payment File Details – Originating Bank Account

This list is populated with all the bank accounts relating to the currently selected service user, allowing you to specify which bank account the transactions are to originate from. By default, this will select the main bank account for the service user, unless you are editing an existing payment file, in which case the associated bank account will be selected.

Payment File Details – Account Details

The details of the selected originating bank account are displayed here. The account number is displayed in the first box and the sort code is displayed in the three corresponding boxes that follow. You cannot change these values from the Submissions client, they are only displayed to confirm the bank account for the payment instructions.

Payment File Details – Transaction Type

Use this drop down list to select between Direct Debit, Direct Credit or Direct Debit Instructions. You can only have one type of transaction for each payment file created manually and all transactions in the instructions section will be of this type.

Payment File Details – Currency

If the service user supports Euro transactions, then this option will be enabled. All payment instructions will be of this particular currency. However, for direct debit instructions there is no monetary value hence the currency is not required.

Payment File Details – Processing Date

Use this calendar to select the earliest processing date for the transactions.

Instructions Section – Account Number

This is the destination account number for the particular payment instruction.

Instructions Section – Sort Code

This is the destination sort code for the particular payment instruction.

Instructions Section – Account Name

This is the account name of the destination payment instruction.

Instructions Section – Users Reference

Depending on the Bank, the reference will appear on the bank statement of the destination account. For payments to Building Societies accounts, the Users Reference should be the Roll Number for the account.

Instructions Section – Amount

The monetary amount to be transferred. Use a decimal point to indicate pence. This column will not be available for direct debit instructions because they do not contain a monetary amount.

Instructions Section – DDI Type

There are three options which can be selected here, New DDI, Cancellation and Conversion.

Use New DDI to set up new direct debit instructions and Cancellation to cancel a direct debit. Conversion DDI's are used whenever an existing Direct Debit Originator is converting from a paper based system to the Automated Direct Debit Instruction Service (AUDDIS).

In order to convert the DDI’s to the AUDDIS system, the Originator is required to submit a list of all current instructions being collected with the DDI type set to ‘Conversion’. This list must be sent to BACS while in Test status and the file should mirror the ‘live’ file that will be submitted once testing has been completed.

Once the Originator is satisfied that all paper instructions have been converted successfully, they will request that the status is set to 'Live'. Once in this live state, only New and Cancellation DDI’s may be submitted.

This option is not available when creating or editing Direct Debits or Direct Credits.

Instructions Section – Row Status

This displays the current status of the row. Any errors relating to the payment instructions sort code and account number will be displayed here.

Instructions Section – Total

This simply displays the total amount that will be transferred for all payment instructions. This is not displayed for Direct Debit Instructions since there is no value associated with DDIs.

Instructions Section – Delete Row

Use this button to remove a payment instruction completely. As an alternative, the delete key can be used to clear the contents of the currently selected cell.

Help

If you require any assistance using this dialog, press the help button.

Address Book

The address book can be used to store account details that are used frequently in manual submissions. To show or hide the address book press the ‘Address Book’ button. The following dialog should then be shown.

Cancel

Clicking this button will lose all changes you have made and return you to the Payment Files section of BACS.IP Submissions.

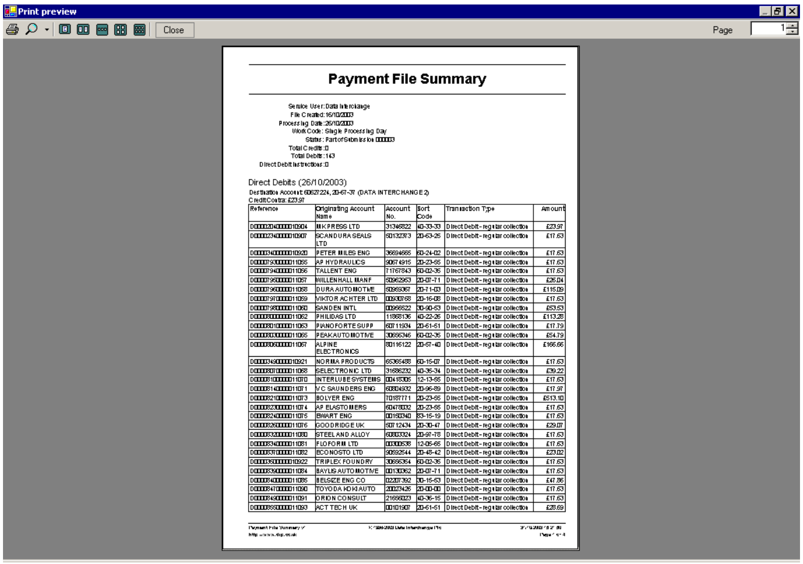
OK

Clicking this button will validate all fields you have entered and save the payment file. It will appear in the Payment Files section where you will be able to edit or submit it.

9.3.4.3 View Summary

This option allows you to view a summary report of one or more selected payment files. You can then print the report from the preview screen. The summary report is produced by the BACS.IP software, not by BACS.

Select one or more payment file lines in the data area, then select this option in order to view a summary report containing the details of the selected payment files. A sample summary report is shown below.



Payment File Summary

Service User: Data Interchange
File Created: 16/10/2003
Processing Date: 26/10/2003
Work Code: Single Processing Day
Status: Part of Submission 000003
Total Credits: 0
Total Debits: 143
Direct Debit Instructions: 0

Direct Debits (26/10/2003)
Destination Account: 60627224, 20-67-37 (DATA INTERCHANGE 2)
Credit Contra: £23.97

Reference	Originating Account Name	Account No.	Sort Code	Transaction Type	Amount
D000020400000010904	MKPRESS LTD	31346822	40-33-33	Direct Debit - regular collection	£23.97
D000023400000010907	SCANDURA SEALS LTD	50132373	20-63-25	Direct Debit - regular collection	£17.63
D000034000000010920	PETER MILES ENG	36694665	60-24-02	Direct Debit - regular collection	£17.63
D000079300000011055	AP HYDRAULICS	90674915	20-23-55	Direct Debit - regular collection	£17.63
D000079400000011056	TALLENT ENG	71767843	60-02-35	Direct Debit - regular collection	£17.63
D000079500000011057	WILLENHALL MANF	50962963	20-07-71	Direct Debit - regular collection	£26.04
D000079600000011058	DURA AUTOMOTIVE	50969367	20-71-03	Direct Debit - regular collection	£115.09
D000079700000011059	VIKTOR ACHTER LTD	00930768	20-16-08	Direct Debit - regular collection	£17.63
D000079800000011060	SANDEN INTL	00956522	30-90-53	Direct Debit - regular collection	£53.53
D000080000000011062	PHILIDAS LTD	11868136	40-22-26	Direct Debit - regular collection	£113.28
D000080100000011063	PIANOFORTE SUPP	60711934	20-61-51	Direct Debit - regular collection	£17.79
D000080300000011065	PEAKAUTOMOTIVE	30696346	60-02-35	Direct Debit - regular collection	£54.79
D000080500000011067	ALPINE ELECTRONICS	80116122	20-57-40	Direct Debit - regular collection	£166.66
D000034900000010921	NORMA PRODUCTS	65365488	60-15-07	Direct Debit - regular collection	£17.63
D000080700000011068	SELECTRONIC LTD	31686232	40-35-34	Direct Debit - regular collection	£39.22
D000081000000011070	INTERLUBE SYSTEMS	00418305	12-13-55	Direct Debit - regular collection	£17.63
D000081400000011071	V C SAUNDERS ENG	60804932	20-96-89	Direct Debit - regular collection	£17.97
D000082100000011073	BOLYER ENG	70187771	20-23-55	Direct Debit - regular collection	£513.10
D000082300000011074	AP ELASTOMERS	60478032	20-23-55	Direct Debit - regular collection	£17.63
D000082400000011075	BWART ENG	00150340	83-15-19	Direct Debit - regular collection	£17.63
D000082500000011076	GOODRIDGE UK	50712434	20-30-47	Direct Debit - regular collection	£29.07
D000083200000011080	STEEL AND ALLOY	60803324	20-97-78	Direct Debit - regular collection	£17.63
D000083400000011081	FLOFORM LTD	00300538	12-05-65	Direct Debit - regular collection	£17.63
D000083700000011082	ECONOSTO LTD	90592544	20-48-42	Direct Debit - regular collection	£23.02
D000035000000010922	TRIPLEX FOUNDRY	30696354	60-02-35	Direct Debit - regular collection	£17.63
D000083900000011084	BAYLIS AUTOMOTIVE	00130362	20-07-71	Direct Debit - regular collection	£17.63
D000084000000011085	BELSIZE ENG CO	02207392	30-15-53	Direct Debit - regular collection	£47.86
D000084700000011090	TOYODA KOKI AUTO	20023426	20-00-00	Direct Debit - regular collection	£17.63
D000084900000011091	ORION CONSULT	21656023	40-36-15	Direct Debit - regular collection	£17.63
D000085500000011093	ACT TECH UK	00101907	20-61-51	Direct Debit - regular collection	£28.69

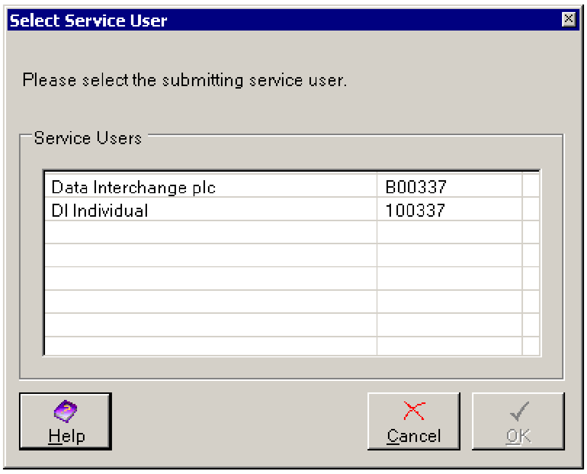
It shows, at the top, a summary of the file details, including:

- the service user associated with the payment file
- the date the file was created
- the processing date
- the work code i.e. whether the file covers a single processing day or a multi-processing day
- the current status of the file e.g. Processed
- the total number of credits
- the total number of debits
- the number of direct debit instructions

This is followed by a list of all the credits and debits in the payment file, broken down by service user account.

9.3.4.4 Create Submission

Select one or more payment files in the data area, then select this option in order to create a submission containing the selected payment files. If you have more than one service user defined in the Administrator, you will now see the Select Service User dialog, shown below.



You must select a service user with which to associate the submission you are creating. Highlight the service user to select it, then click the **OK** button.

If there is only one service user in your system, the submission will automatically be associated with that user.

The payment file status will change to "Part of Submission" and the payment file(s) will be given a value in the Sub. Serial No column. If you look on the Active Submissions page, you will see that a new entry has been added, with the status of "Prepared" and linked to the payment file(s) by the submission number.

A bureau may create a submission containing one or more payment files, but a non-bureau may only create a submission containing a single payment file.

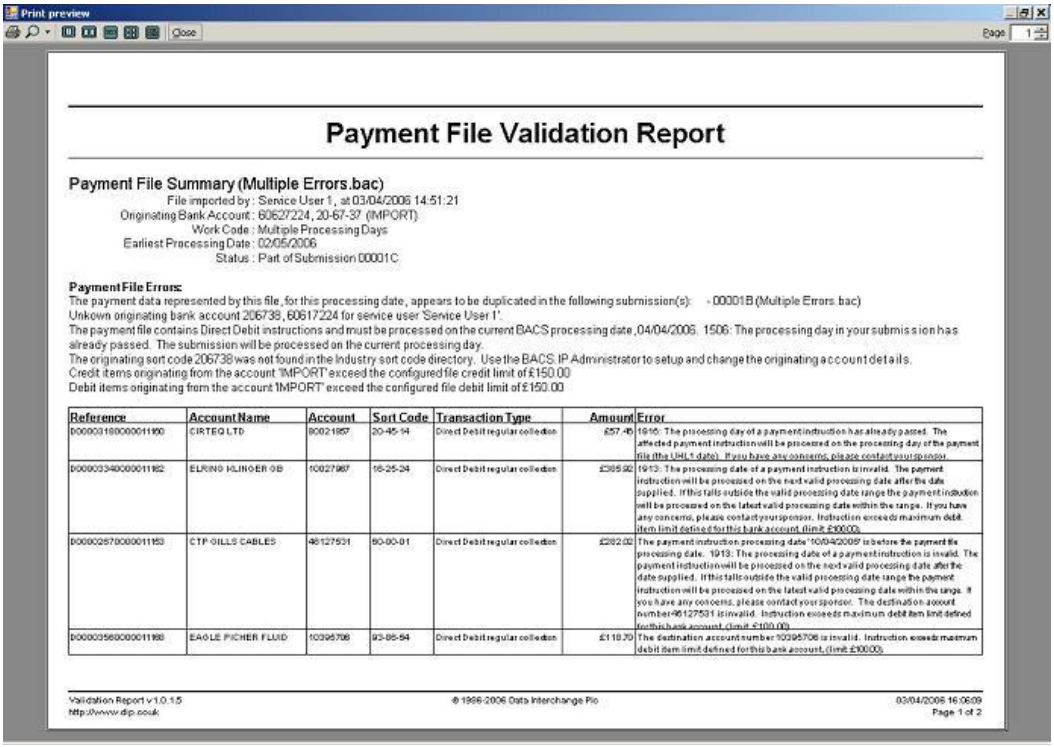
9.3.4.5 Delete

Select one or more payment file lines in the data area, then select this option to delete the selected files. You will see a message box asking if you are sure you want to delete the selected payment files. Click **Yes** to delete them, or **No** to cancel the delete action.

9.3.4.6 View Validation Report

This option allows you to view a validation report of one or more selected payment files. The validation report contains all errors relating to the payment files and payment instructions. You can then print the report from the preview screen. The validation report is produced by the BACS.IP software, not by BACS.

Select one or more payment file lines in the data area, then select this option in order to view the validation report containing the errors of the selected payment files. A sample validation report is shown below.



Payment File Validation Report

Payment File Summary (Multiple Errors.bac)

File imported by : Service User 1, at 03/04/2006 14:51:21
Originating Bank Account : 60627224, 20-67-37 (IMPORT)
Work Code : Multiple Processing Days
Earliest Processing Date : 02/05/2006
Status : Part of Submission 00001C

Payment File Errors:

The payment data represented by this file, for this processing date, appears to be duplicated in the following submission(s): - 00001B (Multiple Errors.bac)
Unkown originating bank account 206738, 60617224 for service user 'Service User 1'.
The payment file contains Direct Debit instructions and must be processed on the current BACS processing date, 04/04/2006. 1506: The processing day in your submission has already passed. The submission will be processed on the current processing day.
The originating sort code 206738 was not found in the Industry sort code directory. Use the BACS IP Administrator to setup and change the originating account details.
Credit items originating from the account 'IMPORT' exceed the configured file credit limit of £150.00
Debit items originating from the account 'IMPORT' exceed the configured file debit limit of £150.00

Reference	Account Name	Account	Sort Code	Transaction Type	Amount	Error
D000031800000011160	CIRTEQ LTD	80021857	20-45-14	Direct Debit regular collection	£57.46	1916: The processing day of a payment instruction has already passed. The affected payment instruction will be processed on the processing day of the payment file (the UHL1 date). If you have any concerns, please contact your sponsor.
D000033400000011162	ELRING KLINGER GB	10027987	16-25-24	Direct Debit regular collection	£385.92	1913: The processing date of a payment instruction is invalid. The payment instruction will be processed on the next valid processing date after the date supplied. If this falls outside the valid processing date range the payment instruction will be processed on the latest valid processing date within the range. If you have any concerns, please contact your sponsor. Instruction exceeds maximum debit item limit defined for this bank account. (limit £100.00)
D000026700000011163	CTP GILLS CABLES	46127531	60-00-01	Direct Debit regular collection	£282.02	The payment instruction processing date '10/04/2006' is before the payment file processing date. 1913: The processing date of a payment instruction is invalid. The payment instruction will be processed on the next valid processing date after the date supplied. If this falls outside the valid processing date range the payment instruction will be processed on the latest valid processing date within the range. If you have any concerns, please contact your sponsor. The destination account number 46127531 is invalid. Instruction exceeds maximum debit item limit defined for this bank account. (limit £100.00)
D000035600000011168	EAGLE PICHER FLUID	10395706	93-86-54	Direct Debit regular collection	£118.70	The destination account number 10395706 is invalid. Instruction exceeds maximum debit item limit defined for this bank account. (limit £100.00)

Validation Report v1.0.1.5
http://www.dip.co.uk
© 1986-2006 Data Interchange Plc
03/04/2006 16:06:09
Page 1 of 2

This report shows a summary of each payment file, followed by the errors associated with it and finally a table highlighting all payment instruction errors.

The **payment file summary** section includes the following fields,

- the payment file's filename
- the service user associated with the payment file and the time it was imported
- the originating bank account details
- the work code (i.e. whether the file covers a single processing day or a multi-processing day)
- the earliest processing date of the payment file
- the current status of the file e.g. imported

The **payment file errors** section displays all errors relating to the file itself, such as an invalid processing date or an unknown originating bank account.

Finally the **payment instructions table** displays all the errors associated with the payment instructions. This can include errors such as an invalid destination account or an amount that exceed the defined limits.

If multiple payment files have been selected, the validation report will display each payment file on a new page.

9.3.5 Payment Files – context menu

The context menu is available by clicking with your right-hand mouse button anywhere within the data area. However, all the context menu options require you to select a payment file, by highlighting it with a right-hand mouse-click, in order to perform an action.

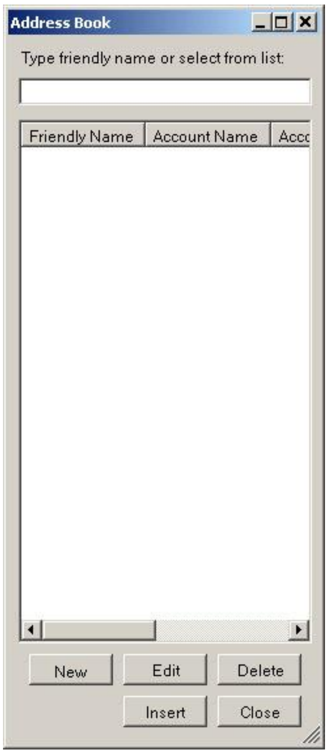
The available context menu actions are:

- Edit processing date – edit the processing date of the selected payment file. Please refer to the section entitled "Edit processing date".

- Manually Create or Edit a Payment File – allows the user to create a new payment file manually or edit an existing payment file that has been imported or created previously. Please refer to the section entitled "Manually Create or Edit a Payment File".
- View Summary – view the summary report for the selected payment file. Please refer to the section entitled "View Summary".
- Create Submission – create a submission containing the selected payment file. Please refer to the section entitled "Create Submission".
- Delete – delete the selected payment file. Please refer to the section entitled "Delete".
- Jump to Submission – jump directly to the active submission related to the selected payment file. This option can only be used for a payment file that is part of a submission (its status may be Part of Submission, Signed or Sent).
- View Validation Report – displays a report showing all errors contained within a payment file. Please refer to the section entitled “View Validation Report”.

9.3.6 Address Book

The address book can be used to store bank account details that are used in manual created submissions.

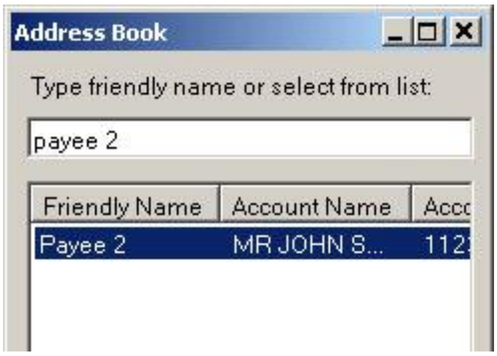


To add a new entry to the address book press the ‘New’ button.

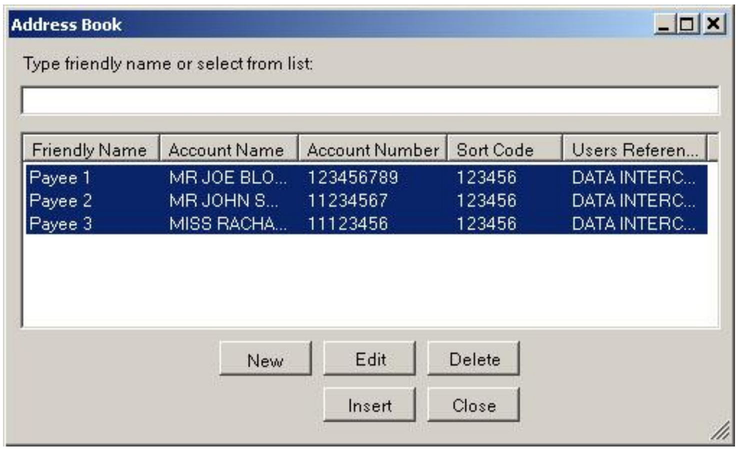
To edit an entry in the address book select one entry and press the ‘Edit’ button.

To delete one or multiple entries select the rows you wish to remove and press the ‘Delete’ button.

Entries from the address book can be inserted into the manual submission dialog in different ways. Firstly by selecting the address book entries you wish to add and clicking the 'Insert' button. Secondly by typing the friendly name in the text box at the top of the dialog, and when an entry is highlighted pressing the enter button. This is shown in the following screenshot:



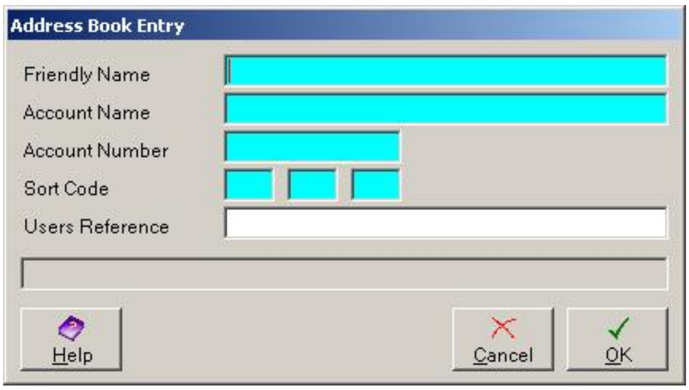
The address book can be resized so that you can view all of the columns available:



The address book can be closed by clicking the 'Close' button on the address book. Alternatively by clicking the 'Address Book' button on the manual submissions dialog.

9.3.6.1 Creating and Editing Address Book Entries

The following dialog is used when creating new address book entries and editing existing address book entries.



Friendly Name

Each entry in the address book has a friendly name, this provides a mechanism for easily recognising and searching entries in the address book. The user should decide on how to use the friendly name to aid searching the address book. The friendly name must be a unique value within the address book.

Account Name

The name held on the bank account for this address book entry.

Account Number

The bank account number of this address book entry.

Sort Code

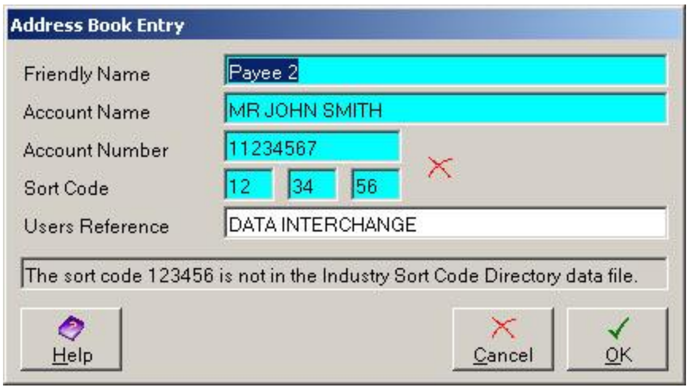
The bank sort code of this address book entry.

Users Reference

Depending on the Bank, the reference will appear on the bank statement of any transactions made using this address book entry. For payments to Building Societies accounts, the Users Reference should be the Roll Number for the account.

Validation

The bank account number and sort code is verified by this dialog against and if invalid a red cross will be shown next to the account number and sort code. A validation message will appear in the grey text box at the base of the dialog. For example:



Cancel

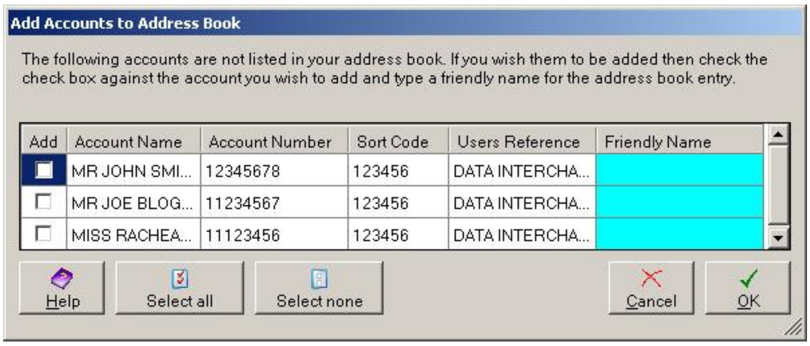
The cancel button can be used to cancel any changes made when editing an address book entry. When creating new address book entries the cancel button will cancel the new entry to the address book.

Save

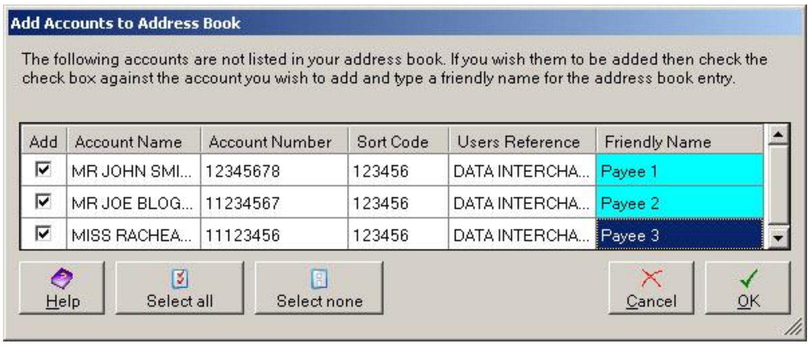
The save button saves a new address book entry or saves changes to an edited address book entry.

9.3.6.2 Creating Address Book Entries from Submissions

Address book entries can be created from manually created submissions using the following dialog.



To add an entry to the address book check the check box in the ‘Add’ column, then enter a friendly name for the entry. For example:



Select all

This button will check all of the check boxes in the ‘Add’ column.

Select none

This button will uncheck all of the check boxes in the ‘Add’ column.

Cancel

This button will cancel the addition of any entries to the address book and cancel the save of any manually entered submissions.

Save

This button will save the checked entries to the address book, if no entries are checked then we will not save any entries in the address book.

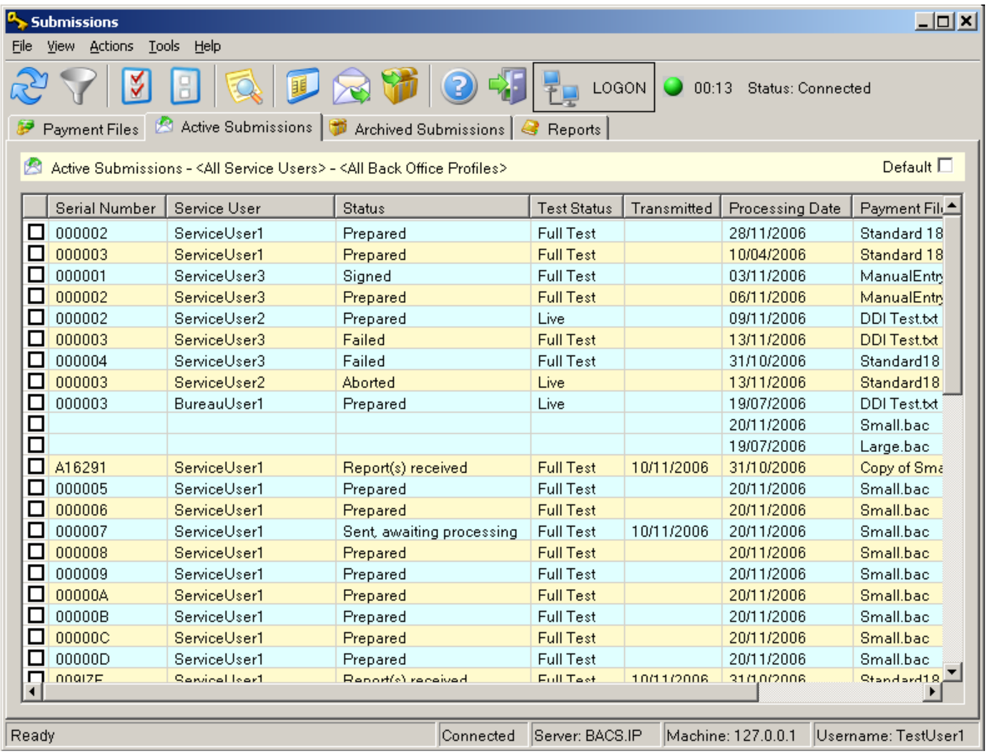
9.4 Active Submissions

The Active Submissions page is where your imported payment files will appear, as submissions, if your service user is configured to create submissions on import.

You will also see here any submissions that were created manually from the Payment Files page (if applicable).

Active submissions may be validated and signed and sent to BACS.

Whether or not individual payment files within a submission must also be signed will be determined by the Service User configuration.



9.4.1 Menu bar

The menu bar of the Active Submissions page contains four options:

- File
- View
- Actions
- Help

Selecting any of these options will present you with another list of options.

File option

The File option allows you to do the following:

- Import a payment file manually to BACS.IP. For full details of this option, please refer to the section entitled "Import File".
- Print a Submission Summary report or an Audit Trail report. For full details of this option, please refer to the section entitled "Print Report".
- Exit from the BACS.IP Submissions application

View option

The View option allows you to do the following:

- Refresh the view (show the results of any updating or editing you have done in this view)
- Filter the view. This means you can select a specific time period or a specific start and end date for which you want to see payment files. You can also select a specific service user or serial number, and specific file statuses, such as Imported or Sent. For full details of this option, please refer to the section entitled "Active Submissions Filter".
- Select all the entries in the view
- Deselect all the entries in the view

Actions option

The Actions option allows you to do the following:

- Send a submission to BACS
- Validate and sign a submission
- Remove a submission
- Archive a submission
- Reset the status of a submission
- Refresh the status of a submission
- View a summary report of the data in a submission
- View the Audit Trail
- View a BACS report for a submission

Help option

The Help option gives you access to the following:

- Contents – the page(s) of the BACS.IP on-line Help manual that describe and explain the page you are currently looking at
- About – a dialog giving technical details about the BACS.IP Submissions application
- Online Support – provides direct access to the Data Interchange Plc website
- Payment Services website – provides direct access to the BACS Payment Services website

9.4.2 Tool bar

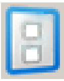
The Active Submissions tool bar duplicates many of the menu bar options, but generally you will find only the most commonly used options in the main tool bar.

This tool bar contains 11 options. Although all options will always be present, they will only work if you have been given sufficient privileges by the BACS.IP Administrator.

 This is the Refresh option. The Refresh option updates the contents of the page to show the results of any updating or editing you have done in this view.

 This is the Filter option. The Filter option allows you to select a specific time period or a specific start and end date for which you want to see entries in the data area.

 This is the Select All option. The Select All option allows you to select all the entries on the current page, in order to perform an action on them.

 This is the Deselect option. The Deselect option allows you to deselect all the currently selected entries on the current page.

 This is the View Summary Report option. This option creates a preview of a Payment File Summary report created from one or more selected submissions. The report can be printed from the preview screen.

 This is the Sign Submission option. This option allows you to sign one or more selected submissions with your digital signature. You will need to have the appropriate security permission and a smart card and reader to perform this function.

 This is the Send Submission option. Use this option to send one or more selected submissions to BACS. If the submission(s) have not been signed, you will be prompted to sign them.

 This is the Archive Submission option. Use this option to archive one or more submissions manually. You do not have to archive submissions manually, since each successfully processed submission will be archived automatically once the associated Input report (from BACS) has been read. Only processed or withdrawn submissions may be archived using the Archive Submission option. The result will be that the submission is removed from the Active Submissions view and inserted in the Archived Submissions view.

 This is the Help option. The Help option takes you to the page(s) of the BACS.IP on-line Help manual that describe and explain the page you are currently looking at.

 This is the Exit option. The Exit option closes the BACS.IP Submissions application.

 This is the Logon to BACS option. The software will immediately attempt to logon to BACS, and will bring up a Logon to BACS dialog, showing the progress of the current communications activity. You will need your smart card and PIN to use this option.

9.4.3 Data area

The Active Submissions data area is where details of active submissions will be displayed.

Data displayed will be as follows:

Serial Number – the serial number of this submission. The serial number can be used to link an active submission to one or more payment files on the Payment Files page.

Service User – the name of the service user that created this submission.

Status – the current status of the active submission. Once a submission has been sent to BACS, its status will change according to the contents of the BACS reports sent to you to indicate its progress through the BACS system.

Possible statuses are:

- Prepared - the submission has been created in the BACS.IP system and no further processing has yet occurred.
- Signed – the submission has been signed but not yet sent
- Sending to BACS – the submission is in the process of being sent to BACS
- Aborting – the user has prematurely terminated the process of sending the submission to BACS, and the termination is in progress
- Aborted – the user has prematurely terminated the process of sending the submission to BACS
- Failed – the submission failed to arrive at BACS
- Sent, awaiting confirmation – the submission has been sent to BACS and is awaiting preliminary validation
- Sent, awaiting processing – the submission has been sent to BACS, has been validated and is waiting to be processed
- Processed – all the payment files within the submission have been processed and an Input Report has been sent to you.
- Processed (Archived) – all the payment files within the submission have been processed and an Input Report has been sent to you. The Input report has been read and the submission has been archived, either manually or automatically, after the number of days specified in the Retention Periods section of the Administrator.
- Withdrawn – the submission was sent to BACS but a system user requested the destination bank to withdraw the submission. A Withdrawal Report has been received from BACS.
- Rejected – the submission was sent to BACS but was rejected by them. A Rejection Arrival Report has been received from BACS.

Test Status – this indicates the submission status currently allocated to the service user. This status is configured in the Administrator. For more information about the Test Status, please refer to the section entitled "**Service user details – Submission status**".

Transmitted – the date on which the submission was transmitted to BACS, if applicable. If the submission has not yet been sent, this column will be blank.

Processing Date – the date on which this submission is to be processed by BACS. If the submission contains several payment files with different processing dates, the processing date will be the earliest processing date of the payment files. If no processing date is provided in the file, the processing date shown here will be the following day's date. The processing date may be up to 31 days after the date on which the file is to be received by BACS.

Payment File – the name of the payment file contained in this submission

Payment Service User – the service user that created the payment file contained in this submission

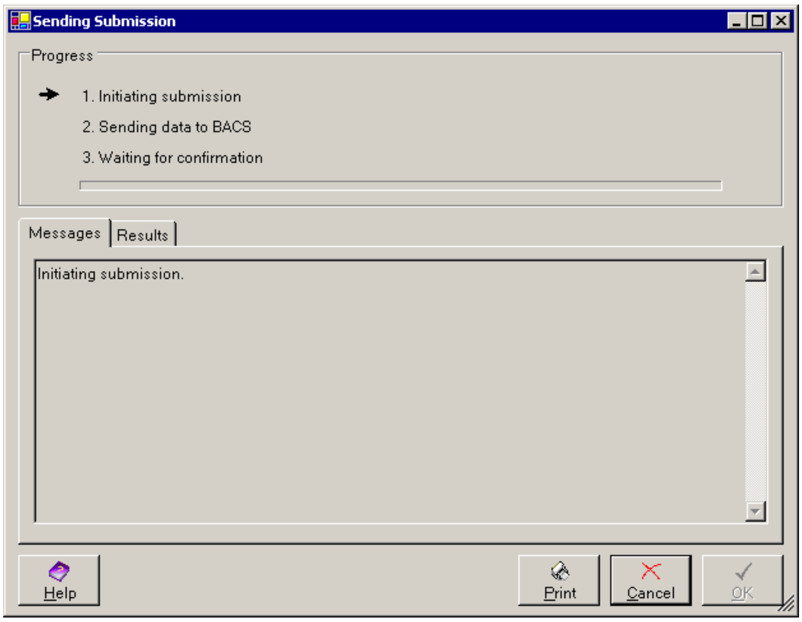
9.4.4 Active Submissions – Actions

Let's take a closer look at the actions you can perform on the Active Submissions page.

9.4.4.1 Send

Select this option to send a selected submission to BACS. The submission must be validated and signed before you can send it, so you will be prompted to do this if you have not already done so. Please refer to the section entitled "Validate and Sign " for details of how to sign a submission.

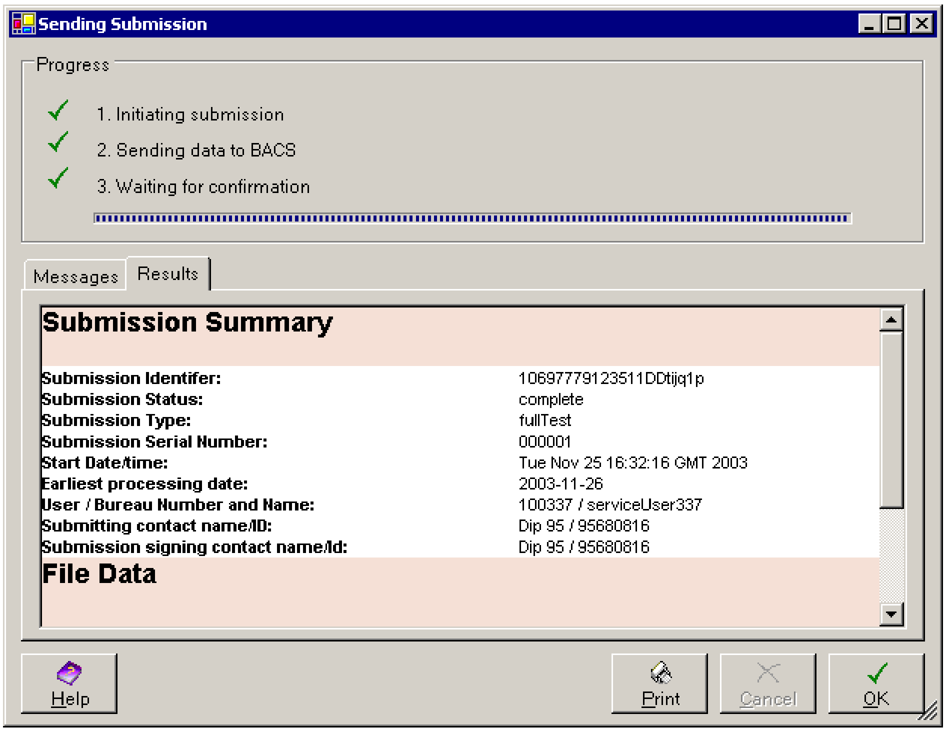
Once the submission has been signed and you click the **Send** option, you will see the following dialog.



This shows you the progress of the connection to BACSTEL-IP. If you are not logged onto BACS, or your previous session has timed out, you will be prompted to logon to BACS, using your smart card and PIN.

As the Send operation progresses, you will see the black arrow in the Progress section move down to the next step, and a green tick will appear alongside the previous step if it completed successfully.

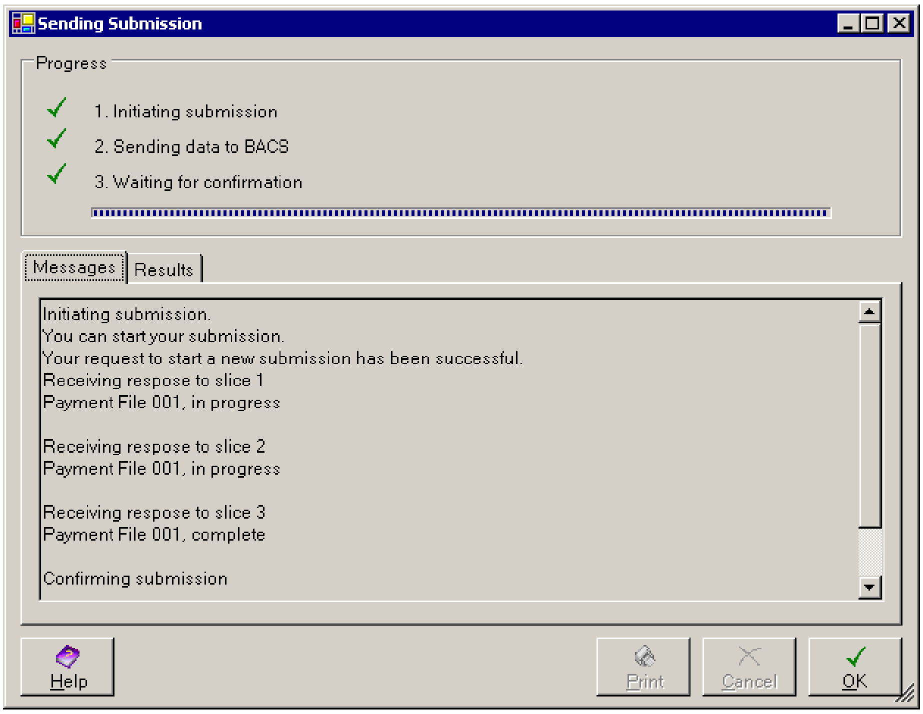
When you have connected to BACS and the file has been sent, you will see the results of the transmission, on the Results page tab of this dialog, as shown in the example below.



The important thing to be checked here is the Submission Status. In the example above, the Status is "complete", which means that the submission was received by BACS.

The Results page contains a summary of the submission and each payment file within it. You can print the contents of the Results page, as a report, buy clicking the **Print** button.

If you look at the Messages page tab, you will see a running commentary of what went on during the transmission, as shown in the example below.



To return to the Active Submissions page, click the **OK** button. You will see that the submission you just sent now has the status "Sent, awaiting processing".

9.4.4.2 Validate and Sign

Select this option in order to validate and sign a submission. You will need to have the appropriate security permission, a smart card and reader, and a PIN number to perform this function. BACS.IP will validate the data content of the submission before you sign it.

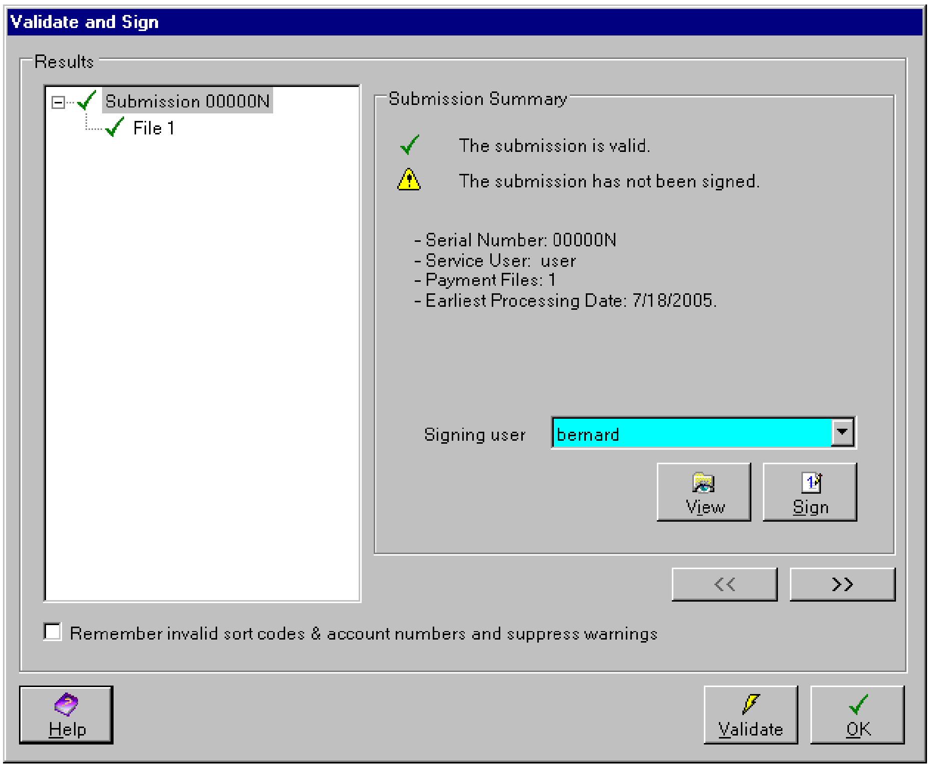
> *N.B. This option can be used by someone without a smart card, simply to validate and correct a submission if necessary. In this case, the Sign buttons will not be enabled. Once validation and correction has been completed, click the* ***OK*** *button to return to the Active Submissions page.*

The Validate and Sign option also allows you to sign the payment file(s) within the submission if required. Whether or not individual payment files must be signed will be determined by the Service User configuration.

For a submission whose individual payment files do not need to be signed, the **Sign** button appears only with the Submission Summary details. For a submission whose individual payment files may be signed, the **Sign** button appears with the Submission Summary details and with each set of Payment File Summary details.

Successful validation

An example of a successful validation is shown in the dialog below.



The tree view on the left shows the submission and all the payment files within it (in the example there is only one payment file).

The Submission Summary on the right shows details of the submission.

By using the **Forward** and **Back** buttons you can make your way through the submission and payment files in the tree view and view their details on the right. You should read all the Summary details for the submission and payment files to check that they are correct.

> *N.B. For payment files that may be signed, you will notice that each set of Payment File Summary details warns you that the payment file has not been signed. They should be signed before you sign the submission itself*

*(remember to select the appropriate signing user from the dropdown list first). A **Sign** button appears with each set of Payment File Summary details to allow you to sign each payment file. If you accidentally sign the submission before signing the payment file(s), you can return to the Active Submissions page, reset the status of the submission, and then go through the Validate and Sign process again.*

After checking the summary information, the most important thing to note is the green tick against the submission and the file in the tree view, the "submission is valid" message in the Submission Summary, and the warning triangle telling you that the submission has not been signed.

Since the submission is valid, you may ignore the **Validate** button and continue with the signing of the submission. Before you do so, you may, using the dropdown arrow, choose from any of the listed Signing users to sign the submission.

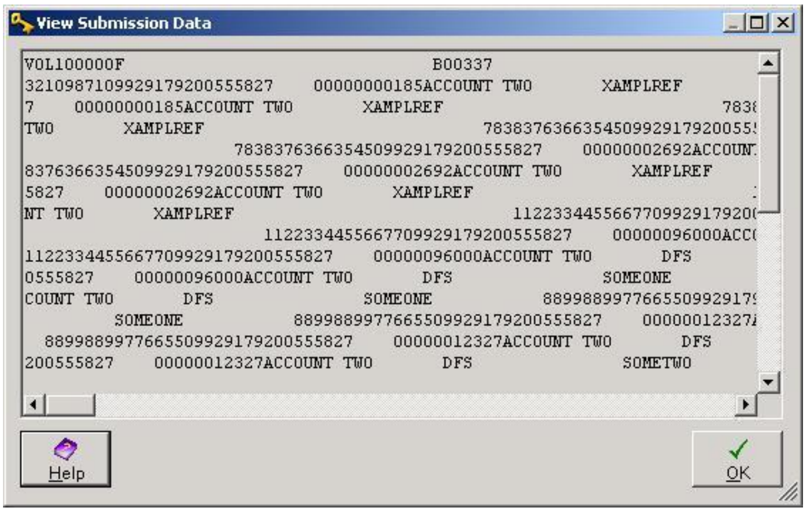
Please note that, if you click the **OK** button at this point, you will simply be returned to the Active Submissions page without having signed the submission.

You can now click the **Sign** button to move on to the next part of the Validate and Sign option, first making sure that your smart card is inserted in the card reader.

View Submission Data dialog

If you want to see the data within the submission, select the "View data" tickbox before clicking the **Sign** button. This will bring up the View Submission Data dialog, shown below.

If you do not select the "View data" tickbox, you will be taken straight to the Enter PIN dialog when you click the **Sign** button.

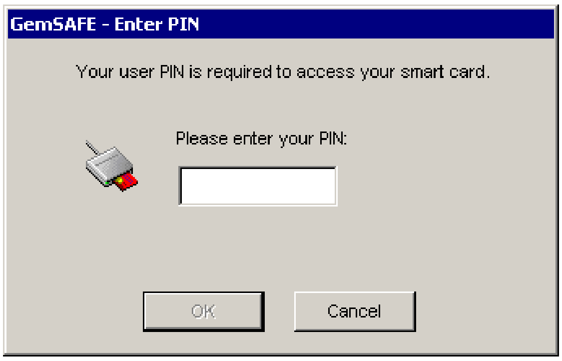


This dialog allows you to see the raw data that you are about to send to BACS. It is in Standard 18 format, so you may need to consult the BACS Standard 18 specification if you want to know exactly what the data means.

When you have viewed the data, click the **OK** button to proceed to the Enter PIN dialog.

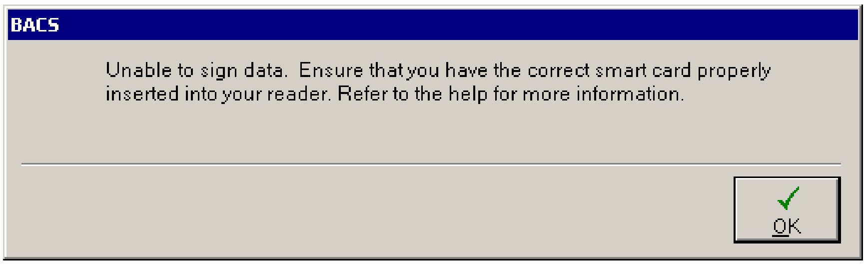
Enter PIN dialog

From the Validate and Sign dialog or from the View Submission Data dialog, the next step in the Validate and Sign process is the Enter PIN dialog:



On this dialog, type in your PIN number. When the PIN number is correct, the **OK** button will become enabled. Click **OK** to complete the signing process, or click **Cancel** to leave the payment file unsigned.

If the smart card in your reader is not associated with the signing user you have selected, instead of the Enter PIN dialog you will see the following message box.



This tells you that the data could not be signed. Please check that your smart card is inserted correctly and ensure that you have selected, on the Validate and Sign dialog, a signing user that is associated with this card.

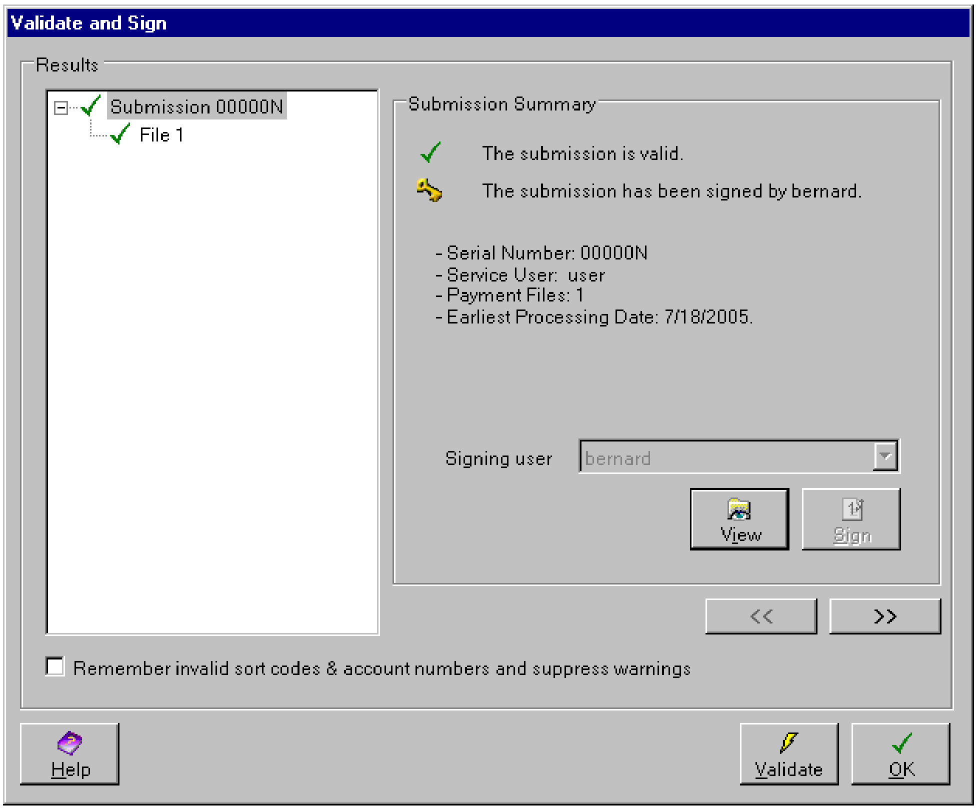
Unable to sign challenge from BACS

Signing can also fail for one of the following reasons:

- The smart card reader is not correctly installed. Check the documentation of your bank's chosen signing solution to ensure it is properly installed.
- The smart card is not ready to be used for signing. Some cards are shipped with a "Transportation" or "Initialisation" PIN number. This PIN must be entered, and a user PIN number set up before the card can be used for any purpose.
- The smart card is not correctly inserted. Try removing the card and re-inserting it slowly.

Completion of validate and sign

If you completed the signing process, you will be returned to the Validate and Sign dialog, on which the **Sign** button is now disabled, and where the Submission Summary states who has signed the submission, as shown in the example below.



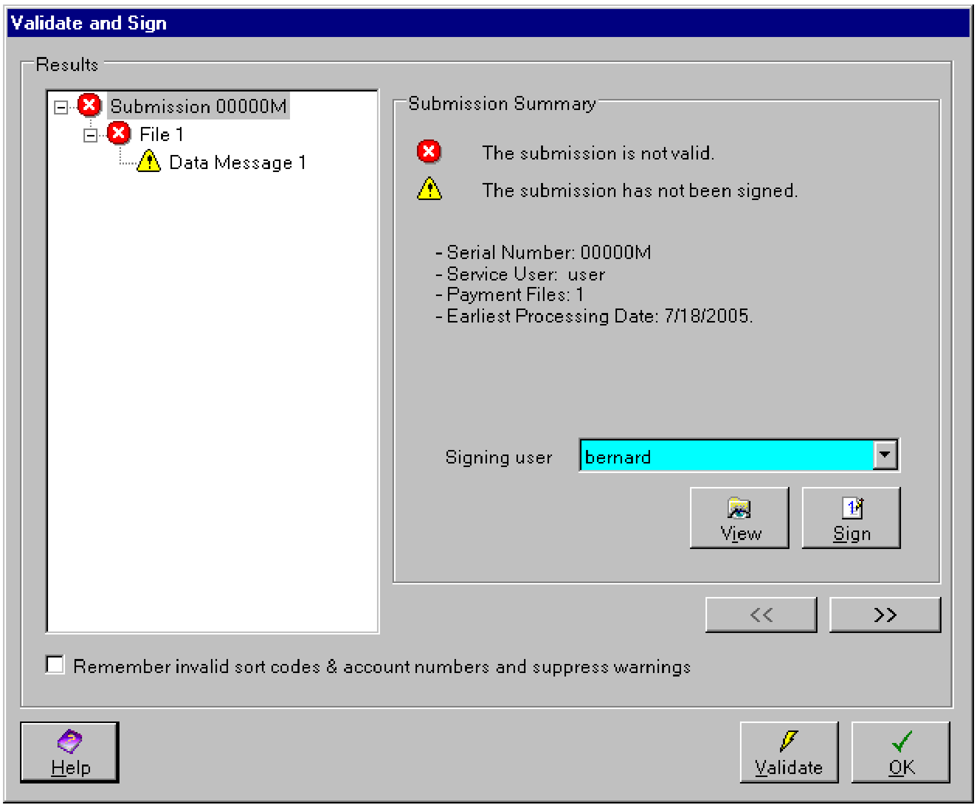
If you came to the Validate and Sign dialog from the Validate and Sign option, click **OK** to return to the Active Submissions page, where you will see that the Status of the Submission has been changed to "Signed".

If you came to the Validate and Sign dialog from the Send option, click **OK** to initiate the Sending procedure. For details of the Send procedure, please refer to the section entitled "Send".

Unsuccessful validation

If the validation is unsuccessful, the Validate Submission dialog will show you details of the validation errors that should be corrected before you send the submission to BACS.

An example of an unsuccessful validation is shown in the dialog below.



The Submission Summary again shows details of the submission, but this time it also tells you that the submission is not valid. You should try to correct each error before you sign and send the submission. However, the BACS.IP software will not force you to correct the errors. You will be able to sign and send the submission even though it contains errors, but errors may be returned by BACS if BACS is unable to process the files in which they are found.

In the tree view section of the Validate and Sign dialog, you can see the structure of the submission. The example above shows that the submission contains one payment file. This file contains errors at payment file level (File Message 1 etc). Other files may have errors at payment instruction level (Data Message 1 etc).

You can use the tree or the **Forward** and **Back** buttons to move between the submission, payment files and payment instructions shown in the tree view. As you highlight each Data Message or File Message, the right-hand side of the dialog will highlight the field in error and give a description of what has caused the validation to fail.

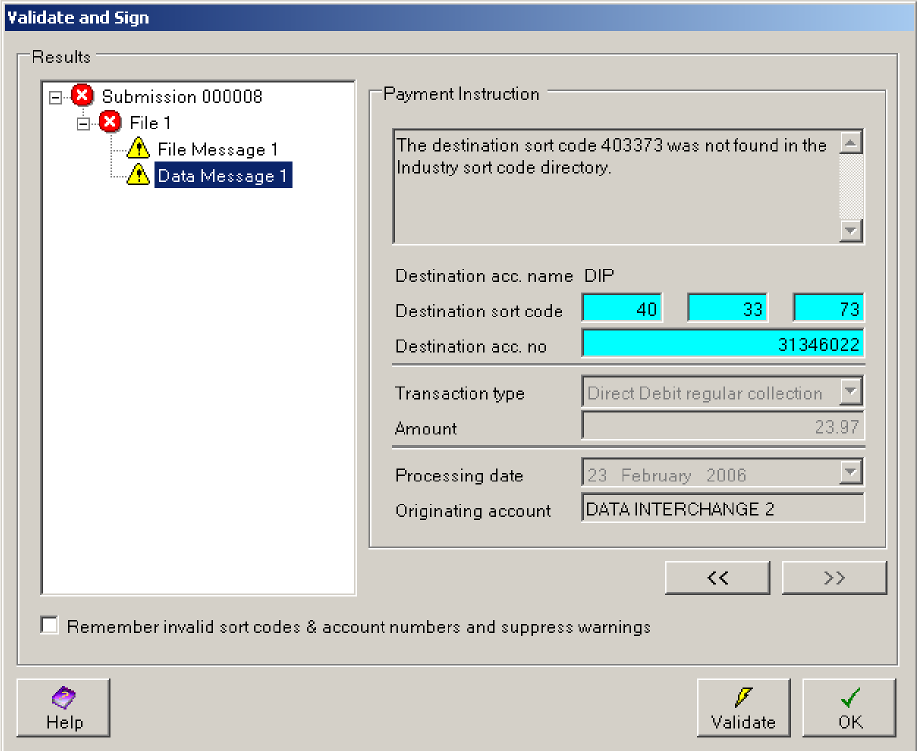
The example below shows the details of an unknown destination sort code.

It is the user's responsibility to decide whether and how to correct any errors.

You may send the submission containing errors, but BACS may inform you that they are unable to process the payment instruction containing those errors.

At payment instruction level, any of the six fields shown in the example below may be invalid for one reason or another. However, the only errors you will be able to correct are those relating to an invalid Destination Sort Code, invalid Destination Account Number, Processing Date or Amount.

If the Processing Date at this level is invalid, you will be able to amend it by using the dropdown arrow at the right-hand side of the Processing Date field and selecting a new date from the calendar that is presented to you. When you click on another field or button, the new date will be validated before you can continue.

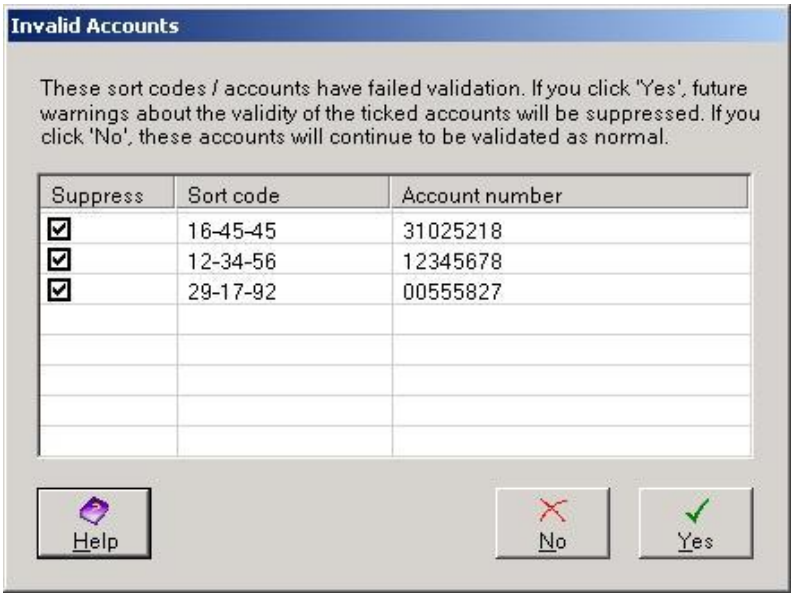


BACS.IP can be set to suppress account number and sort code validation errors if required. In a small number of cases, account numbers and sort codes do not conform to the banks' validity rules. If you are processing payment files that contain accounts you know to be valid, but which fail the validation tests, you can tick the check box near the bottom of the dialog, labeled **Remember invalid sort codes & account numbers and suppress warnings**. Ticking this box has two effects:

- If the validation process finds account errors, a dialog box will be displayed that lists the sort code and account number pairs that are in error. You will then have the option to suppress further warnings about these accounts in the future. If you choose to suppress warnings, the accounts will be added to an internal list of exclusions.
- After validation, errors detected in accounts that are on the exclusions list are not displayed. So once an account has been added to the list, no further warnings about it will appear.

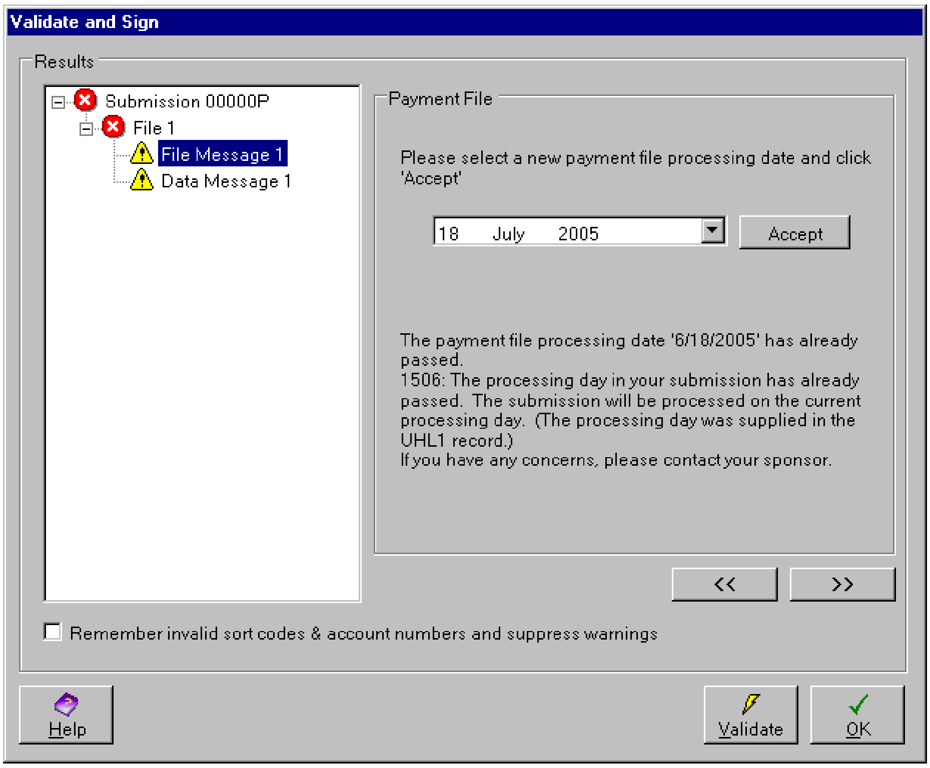
If the check box is not ticked, then you will not be offered the option to add accounts to the exclusions list, and all validation errors will be shown, regardless of whether accounts have been added to the list already.

The exclusions dialog is shown below.



When this dialog is shown, click **Yes** to suppress future warnings about the listed accounts with ticks next to them, or **No** to continue to receive warnings.

At payment file level, the currency or the payment file processing date may be invalid. If the processing date is invalid, you will be offered an alternative, valid, date. This will be the next available valid processing date after the current date. It will be shown on the right-hand side of the Validate Submission dialog, as shown in the example below.



You may choose a different date if you wish, by using the dropdown arrow at the right of the date field and choosing a date from the calendar presented to you. More simply, you can choose to use the date suggested to you, by clicking the **Accept** button.

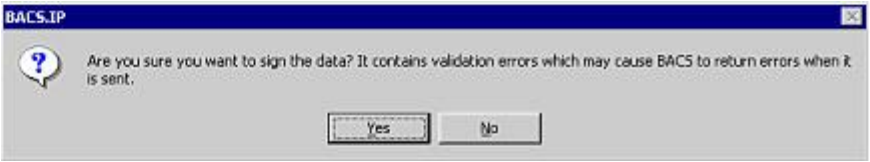
When you have been through all the errors in all the files, you can click the **Validate** button to re-validate the submission.

If you want to ignore the errors and continue to the signing process, you must return to the Submission Summary of the Validate and Sign dialog, by highlighting the Submission node at the top of the tree view.

> *N.B. For payment files that may be signed, you will notice that each set of Payment File Summary details warns you that the payment file has not been signed. They should be signed before you sign the submission itself (remember to select the appropriate signing user from the dropdown list first). A **Sign** button appears with each set of Payment File Summary details to allow you to sign each payment file. If you accidentally sign the submission before signing the payment file(s), you can return to the Active Submissions page, reset the status of the submission, and then go through the Validate and Sign process again.*

Please note that, if you click the **OK** button at this point, you will simply be returned to the Active Submissions page without having signed the submission.

Ensure that you have selected the required Signing User from the dropdown list, then click on the **Sign** button below the Signing User field, first making sure that your smart card is inserted in the card reader. This will bring up the following message, asking if you are sure you want to sign the data even though it contains errors.

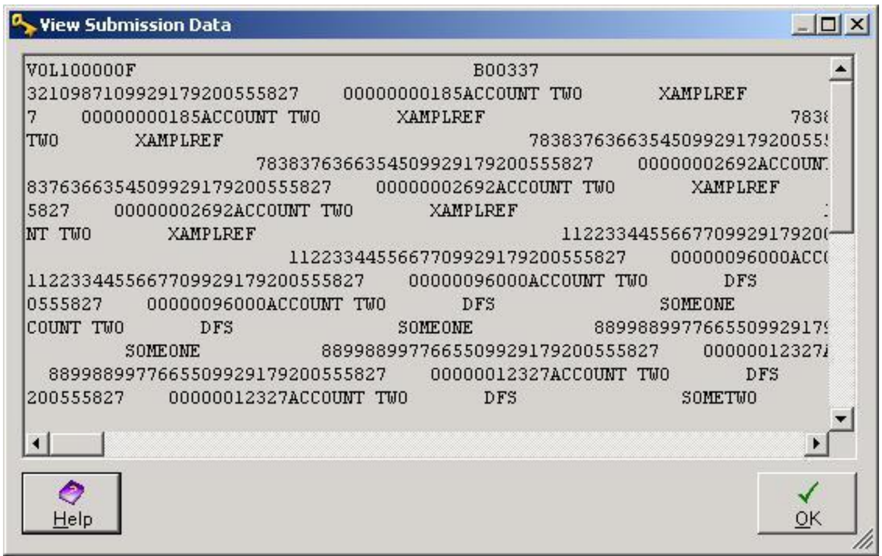


Click **Yes** to continue, or **No** to remain on the Validate and Sign dialog.

View Submission Data dialog

If you want to see the data within the submission, select the "View data" tickbox before clicking the **Sign** button. This will bring up the View Submission Data dialog, shown below.

If you do not select the "View data" tickbox, you will be taken straight to the Enter PIN dialog when you click the **Sign** button.

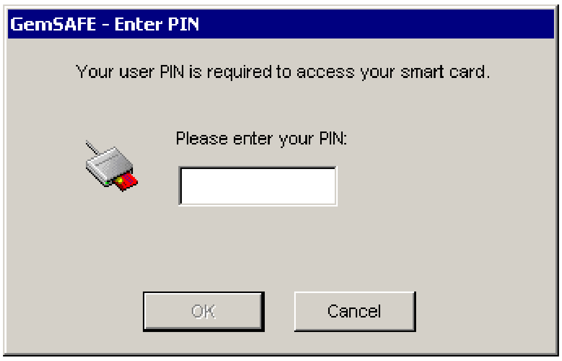


This dialog allows you to see the raw data that you are about to send to BACS. It is in Standard 18 format, so you may need to consult the BACS Standard 18 specification if you want to know exactly what the data means.

When you have viewed the data, click the **OK** button to proceed to the Enter PIN dialog.

Enter PIN dialog

From the Validate and Sign dialog or from the View Submission Data dialog, the next step in the Validate and Sign process is the Enter PIN dialog:



On this dialog, type in your PIN number. When the PIN number is correct, the **OK** button will become enabled. Click **OK** to complete the signing process, or click **Cancel** to leave the submission unsigned. However, if you click **Cancel**, you will have to validate the submission again before you can sign and send it.

If the smart card in your reader is not associated with the signing user you have selected, instead of the Enter PIN dialog you will see the following message box.

This tells you that the files could not be signed. Please check that your smart card is inserted correctly and ensure that you have selected, on the Submission Summary section of the Validate and Sign dialog, a signing user that is associated with this card.

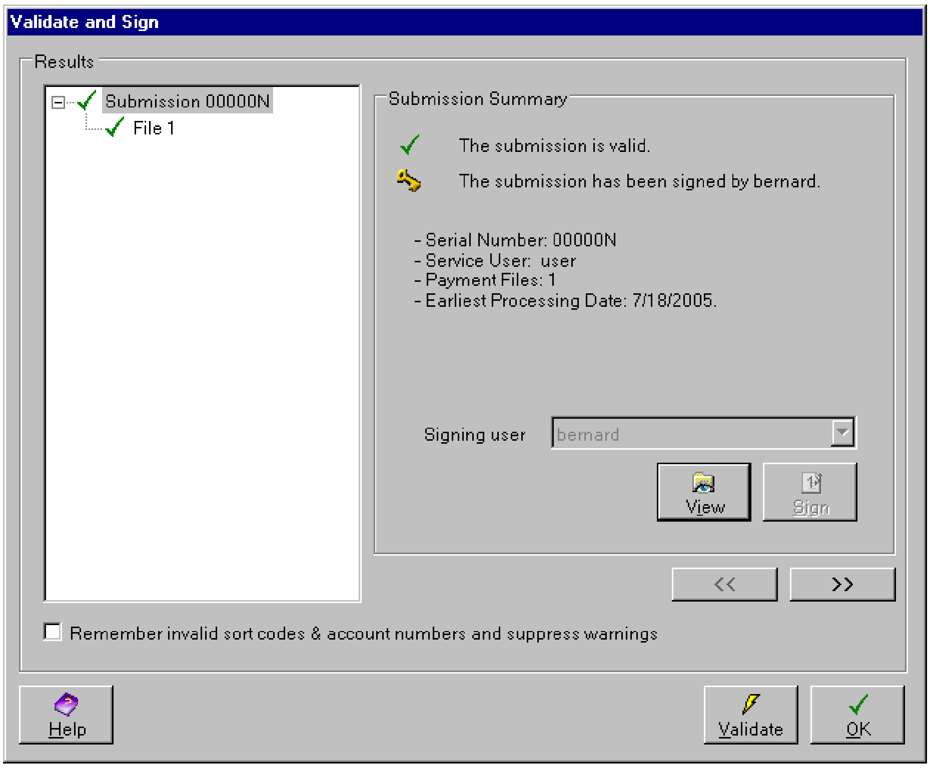
Unable to sign challenge from BACS

Signing can also fail for one of the following reasons:

- The smart card reader is not correctly installed. Check the documentation of your bank's chosen signing solution to ensure it is properly installed.
- The smart card is not ready to be used for signing. Some cards are shipped with a "Transportation" or "Initialisation" PIN number. This PIN must be entered, and a user PIN number set up before the card can be used for any purpose.
- The smart card is not correctly inserted. Try removing the card and re-inserting it slowly.

Completion of validate and sign

If you completed the signing process, you will be returned to the Validate and Sign dialog, on which the **Sign** button is now disabled, and where the Submission Summary states who has signed the submission, as shown in the example below.



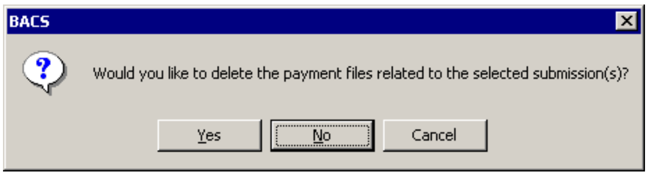
If you came to the Validate and Sign dialog from the Validate and Sign option, click **OK** to return to the Active Submissions page, where you will see that the Status of the Submission has been changed to "Signed".

If you came to the Validate and Sign dialog from the Send option, click **OK** to initiate the Sending procedure. For details of the Send procedure, please refer to the section entitled "Send".

If you were to click **Cancel** after signing the submission, and then confirm the cancellation, you would be returned to the Active Submissions page and all changes to the submission, including the signature, would be lost.

9.4.4.3 Remove

This option allows you to remove a submission from the list. The payment file(s) contained in the removed submission will still be present on the Payment Files page, unless you choose to delete them. The following message box gives you the opportunity to delete or keep the payment files related to the submission.



Click **Yes** to delete the associated payment files, **No** to keep them, or **Cancel** to keep both the submission and the related payment files.

9.4.4.4 Archive

This option allows you to archive one or more submissions manually. You do not need to archive submissions manually, since each successfully processed submission will be archived automatically, after the number of days specified in the Retention Periods section of the Administrator, once the associated Input report (from BACS) has been read. Only processed or withdrawn submissions may be archived using the Archive option. The result will be that the submission is removed from the Active Submissions view and inserted in the Archived Submissions view.

Please note that BACS.IP will not prevent you from manually archiving submissions before reading the associated Input report, but it is your responsibility to check the Input report in order to check for any failures.

9.4.4.5 Reset Status

This option allows you to reset the status of a submission once it has been signed and before it has been sent to BACS. You may therefore use the Reset Status option on the statuses listed below, which will have the effect of resetting the status to Prepared. You must then go through the process of validating and signing the submission again before you send it to BACS.

Resetting the status of a submission also has the effect of changing its serial number, as BACS require that each submission should have a unique serial number.

- Signed – the submission has been signed but not yet sent
- Sending to BACS – the submission is in the process of being sent to BACS
- Aborting – the user has prematurely terminated the process of sending the submission to BACS, and the termination is still in progress
- Aborted – the user has prematurely terminated the process of sending the submission to BACS
- Failed – the submission failed to arrive at BACS
- Withdrawn – the submission was sent to BACS but a system user requested the destination bank to withdraw the submission

If you try to reset any other status, you will see a message box telling you that the software is unable to reset the status of the submission because of its current status.

9.4.4.6 Refresh Status

Once a submission has been sent to BACS, its status will change according to the contents of the BACS reports sent to you to indicate its progress through the BACS system.

This option allows you to refresh the status of one or more submissions by downloading the latest reports from BACS.

If you do not have the necessary privileges to download BACS reports, you will not be allowed to use this option.

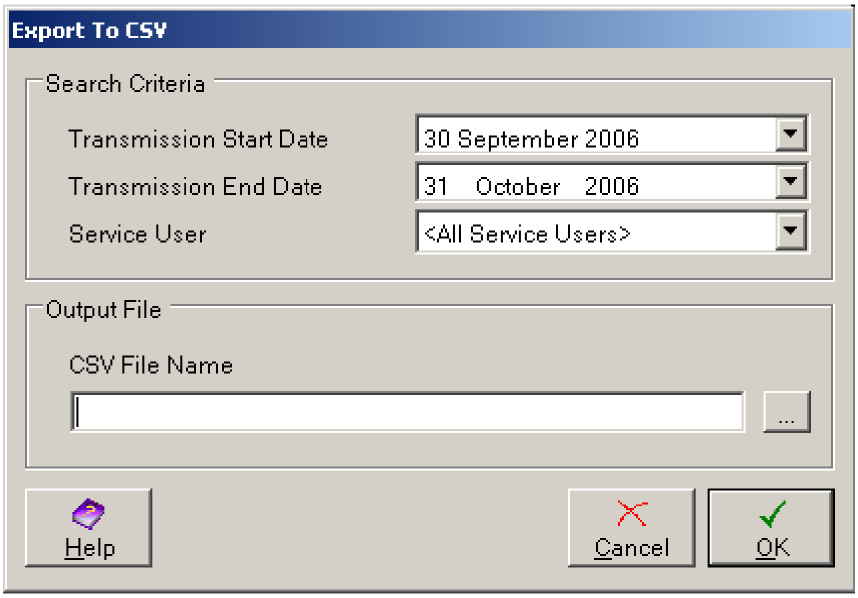
9.4.4.7 Export to CSV

Select this option if you wish to export a summary of your submissions data to a CSV file. The CSV file will output the following details (in this order),

- Submission Serial Number
- Payment File Service User
- Payment File Service User BACS Number
- Payment File Service User Group
- Submission Status

- Transmitted Date
- Earliest Processing Date
- Submission filename
- Original Payment File filename
- DDI Count
- Credit Count
- Credit Value (Pence)
- Debit Count
- Debit Value (Pence)

You will be presented with the following dialog which allows you to enter search criteria and specify the output filename.



Search Criteria – Transmission Start Date

Use the calendar to select the transmission start date. Any submissions that have been transmitted after this date, but before the transmission end date will be retrieved.

Search Criteria – Transmission End Date

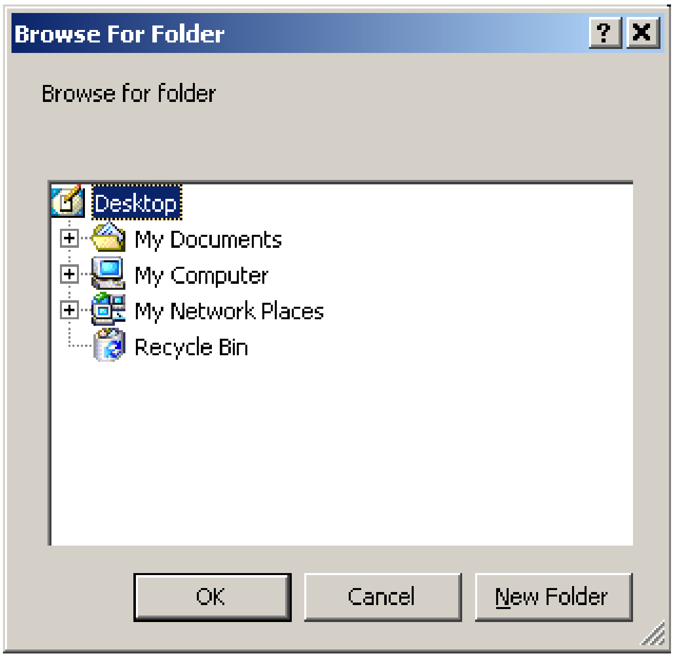
Use the calendar to select the transmission end date. Any submissions that have been transmitted before this date, but after the transmission start date will be retrieved.

Search Criteria – Service User

This drop down list is populated with all the available service users for the current system user. If you wish to filter your submission results to a single service user, you should select them from the list. Leaving <All Service Users> selected will return submissions from all service users.

Output File – CSV File Name

You should enter the full path and filename into this area to specify the save location of your CSV file. If you would prefer to browse for a folder rather than typing the full directory path, you can click the button to the right which will open up the following dialog,



Once you have found the directory where you wish to put your file, click OK and enter the filename.

Alternatively, if you omit the path name and just provide a file name, then the CSV file will be saved to the same directory as the Submissions client executable.

Help

If you require any assistance using this dialog, press the help button.

Cancel

Clicking this button will lose all changes you have made and return you to the Submission section of BACS.IP.

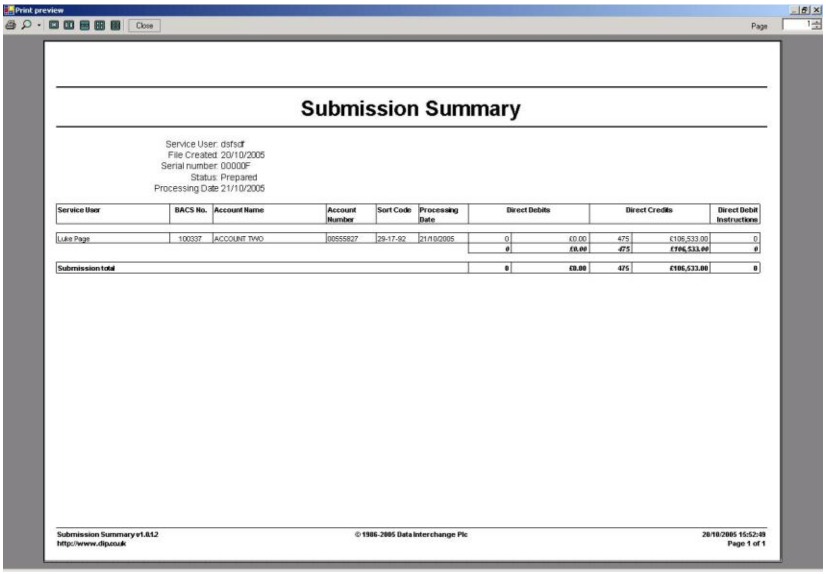
OK

Clicking this button will validate all fields you have entered, retrieve the collection of Submissions based on your search criteria and create the CSV file to the location specified.

9.4.4.8 View Summary Report

This option allows you to view a summary report of one or more selected submissions. You can then print the report from the preview screen. The summary report is produced by the BACS.IP software, not by BACS.

Select one or more submissions in the data area, then select this option in order to view a summary report containing the details of the selected submissions. A sample summary report is shown below.



Print preview

Close Page 1

Submission Summary

Service User: dsfsdf
File Created: 20/10/2005
Serial number: 00000F
Status: Prepared
Processing Date: 21/10/2005

Service User	BACS No.	Account Name	Account Number	Sort Code	Processing Date	Direct Debits		Direct Credits		Direct Debit Instructions
Luke Page	100337	ACCOUNT TWO	00555827	29-17-92	21/10/2005	0	£0.00	475	£106,533.00	0
						0	£0.00	475	£106,533.00	0
Submission total						0	£0.00	475	£106,533.00	0

Submission Summary v1.0.12 © 1986-2005 Data Interchange Plc 20/10/2005 15:52:49
http://www.dip.co.uk Page 1 of 1

For each payment file in each selected submission, it shows a summary of the submission details, including:

- the service user associated with the submission
- the date the payment file was created
- the current status of the submission e.g. Processed
- the processing date

The summary section is followed by a table showing, the following details:

- the service user associated with the payment file
- the number of Direct Debits and their value
- the number of direct credits and their value
- the number of Direct Debit instructions
- the earliest processing date in the payment file
- the work code i.e. whether the file covers a single processing day or a multi-processing day

9.4.4.9 View Audit Trail

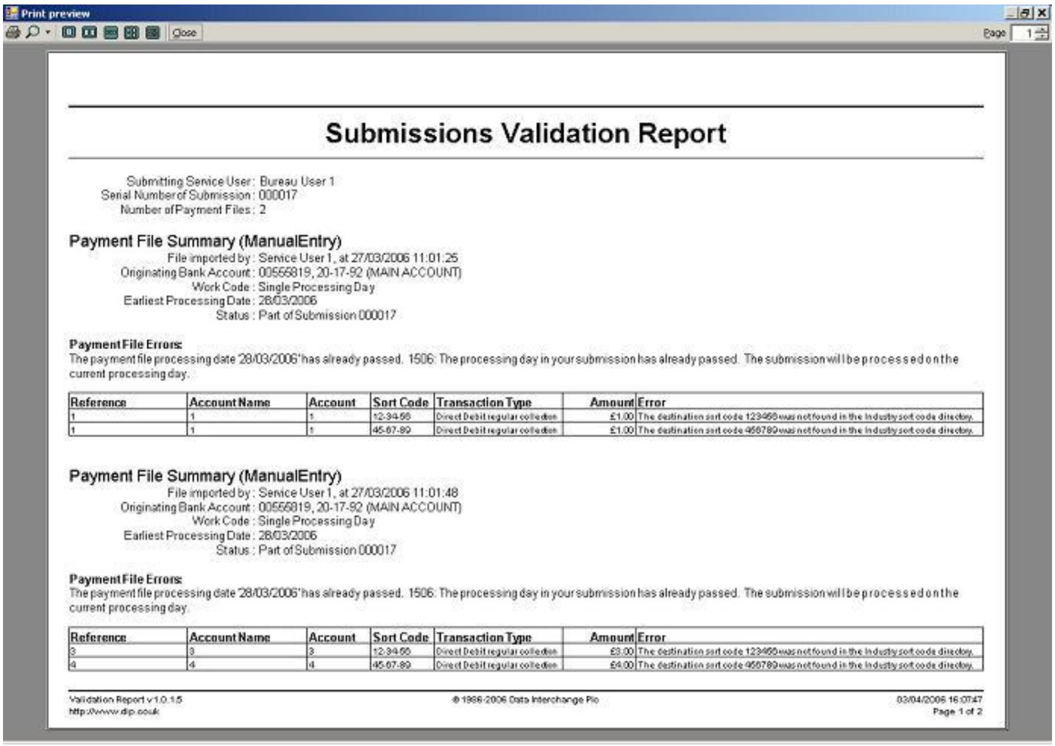
This option allows you to view a report of the audit trail for one or more selected submissions. You can then print the report from the preview screen.

The audit report shows you who did what, and when they did it.

9.4.4.10 View Validation Report

This option allows you to view a validation report of one or more selected submissions. The validation report contains all errors relating to the payment files and payment instructions within the submissions. You can then print the report from the preview screen. The validation report is produced by the BACS.IP software, not by BACS.

Select one or more submission lines in the data area, then select this option in order to view the validation report containing the errors of the selected submissions. A sample validation report is shown below.



Print preview

Close Page 1

Submissions Validation Report

Submitting Service User : Bureau User 1
Serial Number of Submission : 000017
Number of Payment Files : 2

Payment File Summary (ManualEntry)

File imported by : Service User 1, at 27/03/2006 11:01:25
Originating Bank Account : 00555819, 20-17-92 (MAIN ACCOUNT)
Work Code : Single Processing Day
Earliest Processing Date : 28/03/2006
Status : Part of Submission 000017

Payment File Errors:
The payment file processing date '28/03/2006' has already passed. 1506: The processing day in your submission has already passed. The submission will be processed on the current processing day.

Reference	Account Name	Account	Sort Code	Transaction Type	Amount	Error
1	1	1	12-34-56	Direct Debit regular collection	£1.00	The destination sort code 123456 was not found in the Industry sort code directory.
1	1	1	45-67-89	Direct Debit regular collection	£1.00	The destination sort code 456789 was not found in the Industry sort code directory.

Payment File Summary (ManualEntry)

File imported by : Service User 1, at 27/03/2006 11:01:48
Originating Bank Account : 00555819, 20-17-92 (MAIN ACCOUNT)
Work Code : Single Processing Day
Earliest Processing Date : 28/03/2006
Status : Part of Submission 000017

Payment File Errors:
The payment file processing date '28/03/2006' has already passed. 1506: The processing day in your submission has already passed. The submission will be processed on the current processing day.

Reference	Account Name	Account	Sort Code	Transaction Type	Amount	Error
3	3	3	12-34-56	Direct Debit regular collection	£3.00	The destination sort code 123456 was not found in the Industry sort code directory.
4	4	4	45-67-89	Direct Debit regular collection	£4.00	The destination sort code 456789 was not found in the Industry sort code directory.

Validation Report v1.0.1.5
http://www.dip.co.uk
© 1986-2006 Data Interchange Plc
03/04/2006 16:07:47
Page 1 of 2

This report shows a summary of each submission broken down into its individual payment files. The payment files display a summary followed by the errors associated with it and finally a table highlighting all payment instruction errors.

The **submission summary section** contains a summary of the selected submission and contains the following fields,

- the name of the user who created the submission
- the serial number of the submission
- a count of the total number of payment files associated with this submission

The **payment file summary** section includes the following fields,

- the payment file's filename
- the service user associated with the payment file and the time it was imported
- the originating bank account details
- the work code (i.e. whether the file covers a single processing day or a multi-processing day)
- the earliest processing date of the payment file
- the current status of the file e.g. imported

The **payment file errors** section displays all errors relating to the file itself, such as an invalid processing date or an unknown originating bank account.

Finally the **payment instructions table** displays all the errors associated with the payment instructions. This can include errors such as an invalid destination account or an amount that exceed the defined limits.

If multiple submissions have been selected, the validation report will display each submission on a new page. If there are multiple payment files for a single submission, the validation report will display each payment file sequentially.

9.4.4.11 BACS Reports

This option allows you to view the available BACS reports for a selected submission. BACS reports are available for each stage of the BACS processing cycle. As you obtain each report, the status of the associated submission will be updated on the Active Submissions page to reflect the particular stage it is at in the processing cycle.

9.4.5 Active Submissions – context menu

The context menu is available by clicking with your right-hand mouse button anywhere within the data area. However, most of the context menu options require you to select a submission, by highlighting it with a right-hand mouse-click, in order to perform an action.

The available context menu actions are:

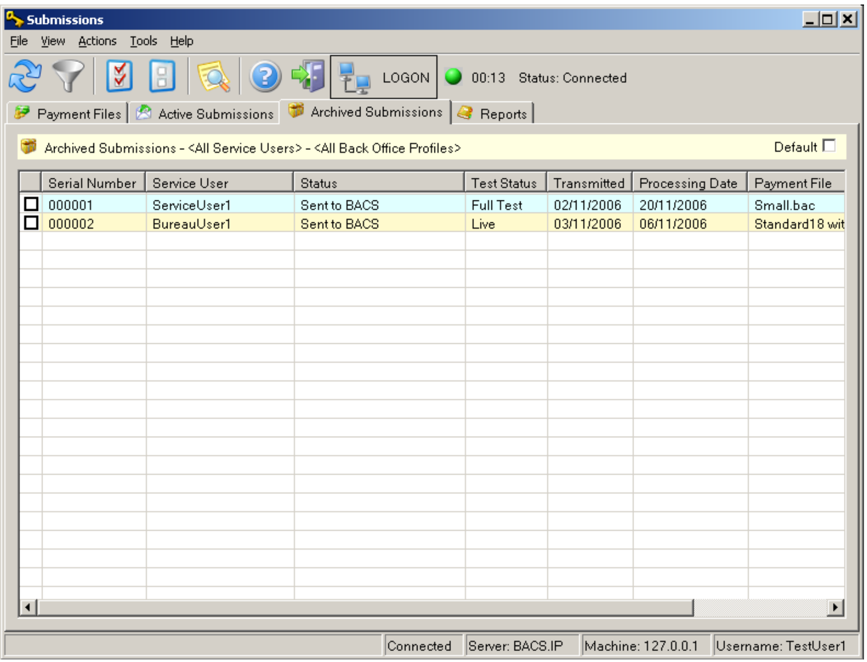
- Send – send the selected submission to BACS. Please refer to the section entitled "Send".
- Validate and Sign – validate and sign the selected submission. Please refer to the section entitled "Validate and Sign ".
- Remove – remove the selected submission. Please refer to the section entitled "Remove".
- Archive – archive the selected submission. Please refer to the section entitled "Archive".
- Reset status – reset the status of the selected submission. Please refer to the section entitled "Reset Status".
- Refresh status – refresh the status of all submissions. This option does not require you to select a submission. Please refer to the section entitled "Refresh Status".
- View Summary Report – view the summary report for the selected submission. Please refer to the section entitled "View Summary Report".
- View Audit Trail – view the audit trail for the selected submission. Please refer to the section entitled "View Audit Trail".
- View Validation Report – displays a report showing all errors contained within a submission. Please refer to the section entitled “View Validation Report”.
- BACS Reports – View a BACS report for the selected submission. This option can only be used for a submission for which one or more BACS reports has been received. Please refer to the section entitled "BACS Reports".

9.5 Archived Submissions

The Archived Submissions page is where submissions will be stored after being sent to BACS, until they are no longer needed. The actual length of time they will be kept can be configured in the Administrator. The default is 365 days.

The purpose of the Archived Submissions page is to allow you to keep a record of the submissions you have made.

Submissions may be archived automatically according to the File Retention settings of the Administrator. Or you may archive submissions manually, using the Archive option from the Active Submissions view.



9.5.1 Menu bar

The menu bar of the Archived Submissions page contains four options:

- File
- View
- Actions
- Help

Selecting any of these options will present you with another list of options.

File option

The File option allows you to do the following:

- Import a payment file manually to BACS.IP. For full details of this option, please refer to the section entitled "Import File".
- Print a Submission Summary report or an Audit Trail report. For full details of this option, please refer to the section entitled "Print Report".
- Exit from the BACS.IP Submissions application

View option

The View option allows you to do the following:

- Refresh the view (show the results of any updating or editing you have done in this view)
- Filter the view. This means you can select a specific time period or a specific start and end date for which you want to see payment files. You can also select a specific service user or serial number, and specific file statuses, such as Imported or Sent. For full details of this option, please refer to the section entitled "Archived Submissions filter".
- Select all the entries in the view

- Deselect all the entries in the view

Actions option

The Actions option allows you to do the following:

- View a summary report of data within an archived submission
- View the Audit Trail for an archived submission
- View a BACS report for an archived submission

Help option

The Help option gives you access to the following:

- Contents – the page(s) of the BACS.IP on-line Help manual that describe and explain the page you are currently looking at
- About – a dialog giving technical details about the BACS.IP Submissions application
- Online Support – provides direct access to the Data Interchange Plc website
- Payment Services website – provides direct access to the BACS Payment Services website

9.5.2 Tool bar

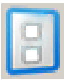
The Archived Submissions tool bar duplicates many of the menu bar options, but generally you will find only the most commonly used options in the main tool bar.

This tool bar contains 8 options. Although all options will always be present, they will only work if you have been given sufficient privileges by the BACS.IP Administrator.

 This is the Refresh option. The Refresh option updates the contents of the page to show the results of any updating or editing you have done in this view.

 This is the Filter option. The Filter option allows you to select a specific time period or a specific start and end date for which you want to see entries in the data area.

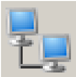
 This is the Select All option. The Select All option allows you to select all the entries on the current page, in order to perform an action on them.

 This is the Deselect option. The Deselect option allows you to deselect all the currently selected entries on the current page.

 This is the View Summary Report option. It allows you to view and print a summary report for one or more selected files. The Summary report is produced by the BACS.IP software, not by BACS.

 This is the Help option. The Help option takes you to the page(s) of the BACS.IP on-line Help manual that describe and explain the page you are currently looking at.

 This is the Exit option. The Exit option closes the BACS.IP Submissions application.

 This is the Logon to BACS option. The software will immediately attempt to logon to BACS, and will bring up a Logon to BACS dialog, showing the progress of the current communications activity. You will need your smart card and PIN to use this option.

9.5.3 Data area

The Archived Submissions data area is where details of archived submissions will be displayed.

Data displayed will be as follows:

Serial Number – the serial number of this submission. The serial number can be used to link an archived submission to one or more payment files on the Payment Files page.

Service User – the name of the service user that created this submission.

Status – the current status of the archived submission.

Possible statuses are:

- Archived Processed – all the payment files within the submission have been processed and an Input Report has been sent to you. The Input report has been read and the submission has been automatically archived, or you have manually archived the submission.
- Archived Withdrawn – the submission was sent to BACS but a system user requested the destination bank to withdraw the submission

Test Status – this indicates the submission status currently allocated to the service user. This status is configured in the Administrator. For more information about the Test Status, please refer to the section entitled "**Service user details – Submission status**".

Transmitted – the date on which the submission was transmitted.

Processing Date – the date on which the submission was to be processed

Payment File – the name of the payment file contained in this submission

Payment Service User – the service user that created the payment file contained in this submission.

9.5.4 Archived Submissions – Actions

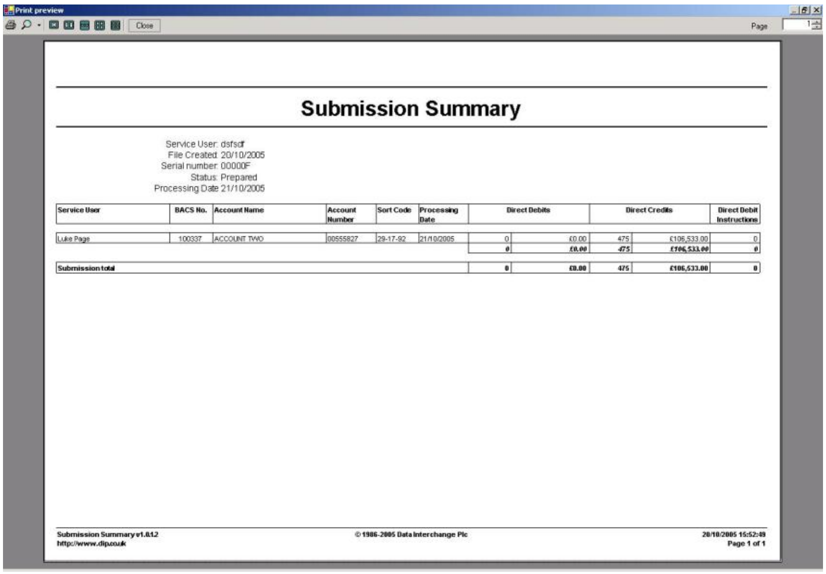
Let's take a closer look at the actions you can perform on the archived submissions page.

9.5.4.1 View Summary Report

This option allows you to view a summary report of one or more selected archived submissions. You can then print the report from the preview screen.

This option allows you to view a summary report of one or more selected archived submissions. You can then print the report from the preview screen. The summary report is produced by the BACS.IP software, not by BACS.

Select one or more archived submissions in the data area, then select this option in order to view a summary report containing the details of the selected submissions. A sample summary report is shown below.



For each payment file in each selected submission, it shows a summary of the submission details, including:

- the service user associated with the submission
- the date the payment file was created
- the current status of the submission e.g. Processed
- the processing date

The summary section is followed by a table showing, the following details:

- the service user associated with the payment file
- the number of Direct Debits and their value
- the number of direct credits and their value
- the number of Direct Debit instructions
- the earliest processing date in the payment file
- the work code i.e. whether the file covers a single processing day or a multi-processing day

9.5.4.2 View Audit Trail

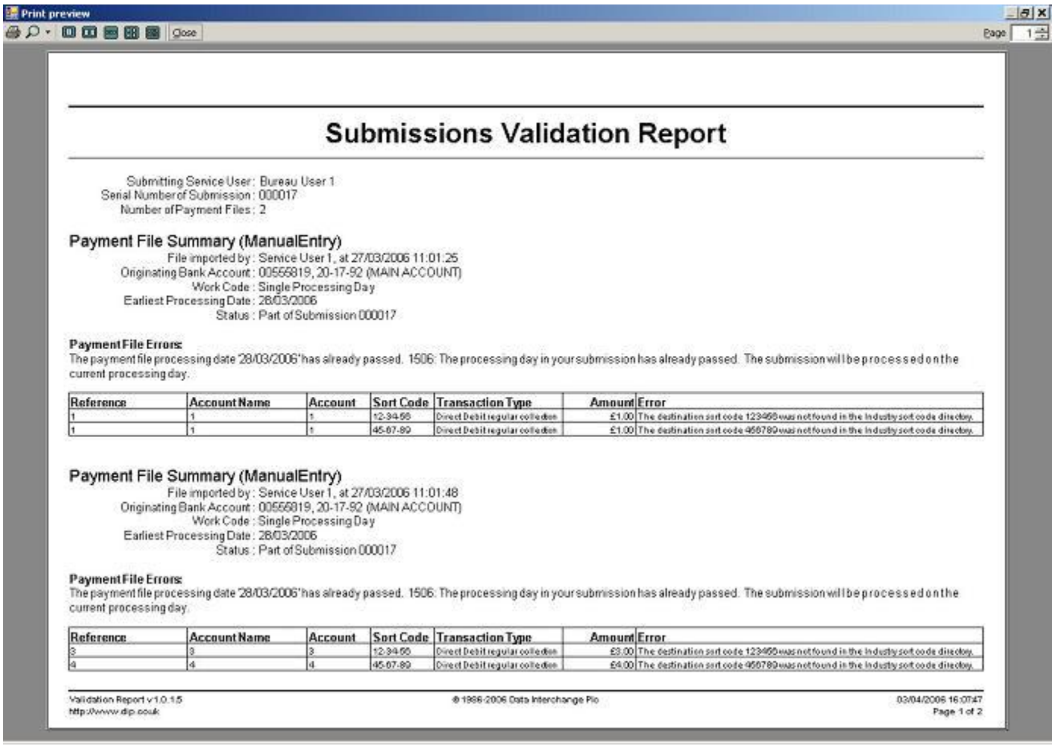
This option allows you to view a report of the audit trail for one or more selected submissions. You can then print the report from the preview screen.

The audit report shows you who did what, and when they did it.

9.5.4.3 View Validation Report

This option allows you to view a validation report of one or more selected archived submissions. The validation report contains all errors relating to the payment files and payment instructions within the archived submissions. You can then print the report from the preview screen. The validation report is produced by the BACS.IP software, not by BACS.

Select one or more submission lines in the data area, then select this option in order to view the validation report containing the errors of the selected submissions. A sample validation report is shown below.



Submissions Validation Report

Submitting Service User : Bureau User 1
Serial Number of Submission : 000017
Number of Payment Files : 2

Payment File Summary (ManualEntry)

File imported by : Service User 1, at 27/03/2006 11:01:25
Originating Bank Account : 00555819, 20-17-92 (MAIN ACCOUNT)
Work Code : Single Processing Day
Earliest Processing Date : 28/03/2006
Status : Part of Submission 000017

Payment File Errors:
The payment file processing date '28/03/2006' has already passed. 1506: The processing day in your submission has already passed. The submission will be processed on the current processing day.

Reference	Account Name	Account	Sort Code	Transaction Type	Amount	Error
1	1	1	12-34-56	Direct Debit regular collection	£1.00	The destination sort code 123456 was not found in the Industry sort code directory.
1	1	1	45-67-89	Direct Debit regular collection	£1.00	The destination sort code 456789 was not found in the Industry sort code directory.

Payment File Summary (ManualEntry)

File imported by : Service User 1, at 27/03/2006 11:01:48
Originating Bank Account : 00555819, 20-17-92 (MAIN ACCOUNT)
Work Code : Single Processing Day
Earliest Processing Date : 28/03/2006
Status : Part of Submission 000017

Payment File Errors:
The payment file processing date '28/03/2006' has already passed. 1506: The processing day in your submission has already passed. The submission will be processed on the current processing day.

Reference	Account Name	Account	Sort Code	Transaction Type	Amount	Error
3	3	3	12-34-56	Direct Debit regular collection	£3.00	The destination sort code 123456 was not found in the Industry sort code directory.
4	4	4	45-67-89	Direct Debit regular collection	£4.00	The destination sort code 456789 was not found in the Industry sort code directory.

Validation Report v1.0.1.5 © 1996-2006 Data Interchange Plc 03/04/2006 16:07:47
http://www.dip.co.uk Page 1 of 2

This report shows a summary of each submission broken down into its individual payment files. The payment files display a summary followed by the errors associated with it and finally a table highlighting all payment instruction errors.

The **submission summary section** contains a summary of the selected submission and contains the following fields,

- the name of the user who created the submission
- the serial number of the submission
- a count of the total number of payment files associated with this submission

The **payment file summary** section includes the following fields,

- the payment file's filename
- the service user associated with the payment file and the time it was imported
- the originating bank account details
- the work code (i.e. whether the file covers a single processing day or a multi-processing day)
- the earliest processing date of the payment file
- the current status of the file e.g. imported

The **payment file errors** section displays all errors relating to the file itself, such as an invalid processing date or an unknown originating bank account.

Finally the **payment instructions table** displays all the errors associated with the payment instructions. This can include errors such as an invalid destination account or an amount that exceed the defined limits.

If multiple submissions have been selected, the validation report will display each submission on a new page. If there are multiple payment files for a single submission, the validation report will display each payment file sequentially.

9.5.4.4 BACS Reports

This option allows you to view the available BACS reports for a selected submission.

9.5.5 Archived Submissions – context menu

The context menu is available by clicking with your right-hand mouse button anywhere within the data area. However, all the context menu options require you to select an archived submission, by highlighting it with a right-hand mouse-click, in order to perform an action.

The available context menu actions are:

- View Summary Report – view the summary report for the selected submission. Please refer to the section entitled "View Summary Report".
- View Audit Trail – view the audit trail for the selected submission. Please refer to the section entitled "View Audit Trail".
- View Validation Report – displays a report showing all errors contained within a submission. Please refer to the section entitled “View Validation Report”.
- BACS Reports – View a BACS report for the selected submission. This option can only be used for a submission for which one or more BACS reports has been received. Please refer to the section entitled "BACS Reports".

9.6 Reports

The Reports view displays all the BACS reports that are currently available for any of your submissions. Each BACS report is linked to a specific submission, easily identifiable by the value in the Submission Serial column.

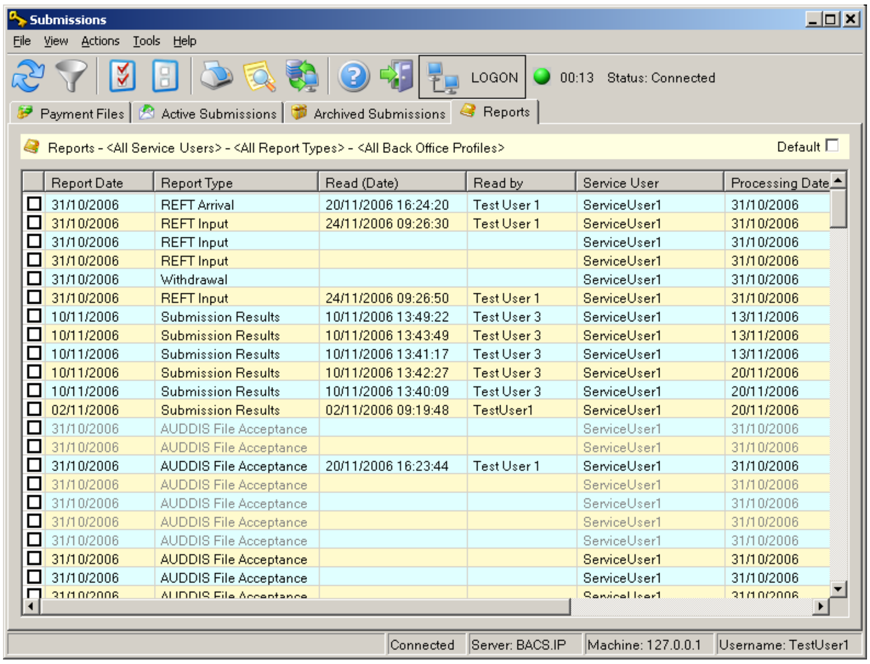
If a submission contained several payment files with different processing dates, or if it contained multiple payment day payment files, a BACS report will be produced for each processing date referred to in the submission.

As you obtain each processing report, the status of the associated submission will be updated on the Active Submissions page to reflect the particular stage it is at in the processing cycle.

The list of reports will be sorted based on the date and time the reports were generated (most recent first). If reports have the same generation date and time, their order is not determined.

Reports can be retrieved within the same application session that was used to transmit a Submission, providing the application session has not timed out and providing you have the appropriate security permission.

It is the responsibility of users to check reports frequently to ensure they stay abreast of all information handed down by BACS.



9.6.1 Menu bar

The menu bar of the Reports page contains four options:

- File
- View
- Actions
- Help

Selecting any of these options will present you with another list of options.

File option

The File option allows you to do the following:

- Import a payment file manually to BACS.IP. For full details of this option, please refer to the section entitled "Import File".
- Print a BACS report. This option sends the report straight to the printer without the option to preview.
- Exit from the BACS.IP Submissions application

View option

The View option allows you to do the following:

- Refresh the view (show the results of any updating or editing you have done in this view)
- Filter the view. This means you can select a specific time period or a specific start and end date for which you want to see payment files. You can also select a specific service user or serial number, and specific file statuses, such as Imported or Sent. For full details of this option, please refer to the section entitled "Reports filter".
- Select all the entries in the view
- Deselect all the entries in the view

Actions option

The Actions option allows you to do the following:

- View a report
- Print a report
- Download a report
- Export XML
- Synchronise reports with BACS
- Search for reports

Help option

The Help option gives you access to the following:

- Contents – the page(s) of the BACS.IP on-line Help manual that describe and explain the page you are currently looking at
- About – a dialog giving technical details about the BACS.IP Submissions application
- Online Support – provides direct access to the Data Interchange Plc website
- Payment Services website – provides direct access to the BACS Payment Services website

9.6.2 Tool bar

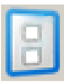
The Reports tool bar duplicates many of the menu bar options, but generally you will find only the most commonly used options in the main tool bar.

This tool bar contains 10 options. Although all options will always be present, they will only work if you have been given sufficient privileges by the BACS.IP Administrator.

 This is the Refresh option. The Refresh option updates the contents of the page to show the results of any updating or editing you have done in this view.

 This is the Filter option. The Filter option allows you to select a specific time period or a specific start and end date for which you want to see entries in the data area.

 This is the Select All option. The Select All option allows you to select all the entries on the current page, in order to perform an action on them.

 This is the Deselect option. The Deselect option allows you to deselect all the currently selected entries on the current page.

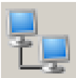
 This is the Print Report option. Use this option to print one or more selected BACS reports.

 This is the View Report option. Use this option to view the contents of a single selected BACS report.

 This is the Download Reports option. Use this option to synchronise your reports with BACS i.e. obtain the most recent reports from BACS.

 This is the Help option. The Help option takes you to the page(s) of the BACS.IP on-line Help manual that describe and explain the page you are currently looking at.

 This is the Exit option. The Exit option closes the BACS.IP Submissions application.

 This is the Logon to BACS option. The software will immediately attempt to logon to BACS, and will bring up a Logon to BACS dialog, showing the progress of the current communications activity. You will need your smart card and PIN to use this option.

9.6.3 Data area

The Reports data area is where details relating to BACS reports will be displayed.

Data displayed will be as follows:

Report Date – the date on which the report was created.

Report Type – the type of the report. Currently the following types of report are available: ARUCS, ARUDD, Input, Withdrawal, and Arrival. The use of (T) following some reports is an indication that these are test reports.

Read (Date) – the date on which the report was first read by one of your system users.

Read by – the username of the system user who was the first person to read the report.

Service User – the service user associated with the system user whose name is in the Read by column.

Processing Date – the processing date of the submission.

Submission Serial – the serial number of the submission. This equates to the volume serial number that can be found on the BACS report.

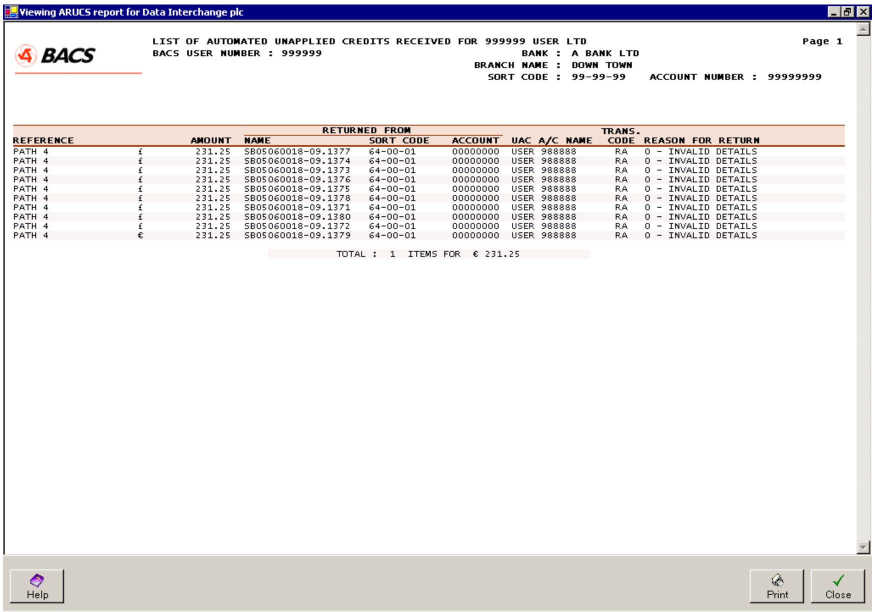
XML Filename – this is the filename containing the XML version of the report. This file can be found in the ..Reports\XML path of the BACS.IP installation directory.

9.6.4 Reports – Actions

Let's take a closer look at the actions you can perform on the reports page.

9.6.4.1 View Report

This option allows you to view the selected report. You can then print the report from the preview screen.


Viewing ARUCS report for Data Interchange plc

BACS

LIST OF AUTOMATED UNAPPLIED CREDITS RECEIVED FOR 999999 USER LTD — Page 1

BACS USER NUMBER : 999999

BANK : A BANK LTD

BRANCH NAME : DOWN TOWN

SORT CODE : 99-99-99 ACCOUNT NUMBER : 99999999

REFERENCE		AMOUNT	RETURNED FROM NAME	SORT CODE	ACCOUNT	UAC A/C NAME	TRANS. CODE	REASON FOR RETURN
PATH 4	£	231.25	SB05060018-09.1377	64-00-01	00000000	USER 988888	RA	0 - INVALID DETAILS
PATH 4	£	231.25	SB05060018-09.1374	64-00-01	00000000	USER 988888	RA	0 - INVALID DETAILS
PATH 4	£	231.25	SB05060018-09.1373	64-00-01	00000000	USER 988888	RA	0 - INVALID DETAILS
PATH 4	£	231.25	SB05060018-09.1376	64-00-01	00000000	USER 988888	RA	0 - INVALID DETAILS
PATH 4	£	231.25	SB05060018-09.1375	64-00-01	00000000	USER 988888	RA	0 - INVALID DETAILS
PATH 4	£	231.25	SB05060018-09.1378	64-00-01	00000000	USER 988888	RA	0 - INVALID DETAILS
PATH 4	£	231.25	SB05060018-09.1371	64-00-01	00000000	USER 988888	RA	0 - INVALID DETAILS
PATH 4	£	231.25	SB05060018-09.1380	64-00-01	00000000	USER 988888	RA	0 - INVALID DETAILS
PATH 4	£	231.25	SB05060018-09.1372	64-00-01	00000000	USER 988888	RA	0 - INVALID DETAILS
PATH 4	€	231.25	SB05060018-09.1379	64-00-01	00000000	USER 988888	RA	0 - INVALID DETAILS

TOTAL : 1 ITEMS FOR € 231.25

Above is an example of an ARUCS report. The **Print** and **Close** buttons are in the bottom right-hand corner of the page.

Click the **Print** button to print the report. Click the **Close** button to close the preview page.

9.6.4.2 Print Report

This option allows you to print the selected report directly, without seeing a preview first.

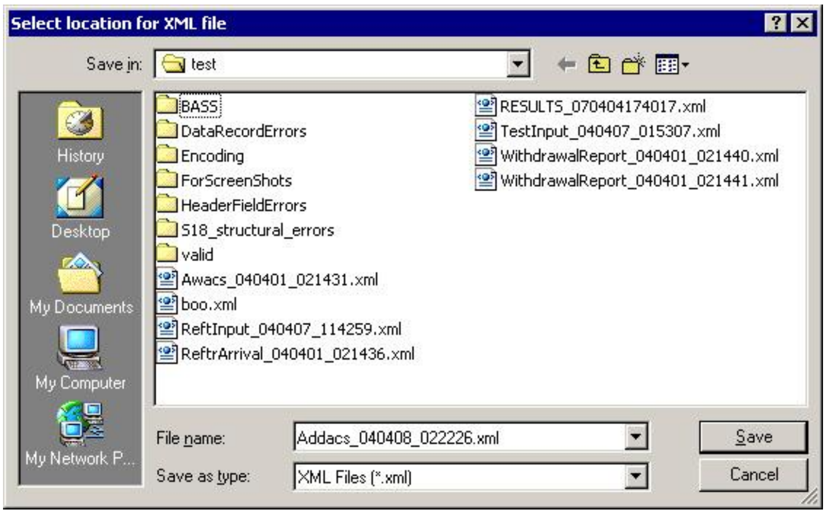
9.6.4.3 Download Report

This option requires the use of a smartcard and PIN. Once activated, you will see the "Logon to BACS" dialog and the Enter PIN dialog. The Logon to BACS dialog will show you information about the progress of the connection. Once the **OK** button is enabled, click it to return to the Reports page.

This option allows you to select one or more specific BACS reports to download. Select one or more of the listed reports in the Reports view and use this option to download them from BACS.

9.6.4.4 Export XML

This option allows you to copy the XML format of a BACS report to another location in your system. This is useful if you have a back-office system which can read the XML format of the BACS report. Select a single report from the list and select this option to see the following dialog:



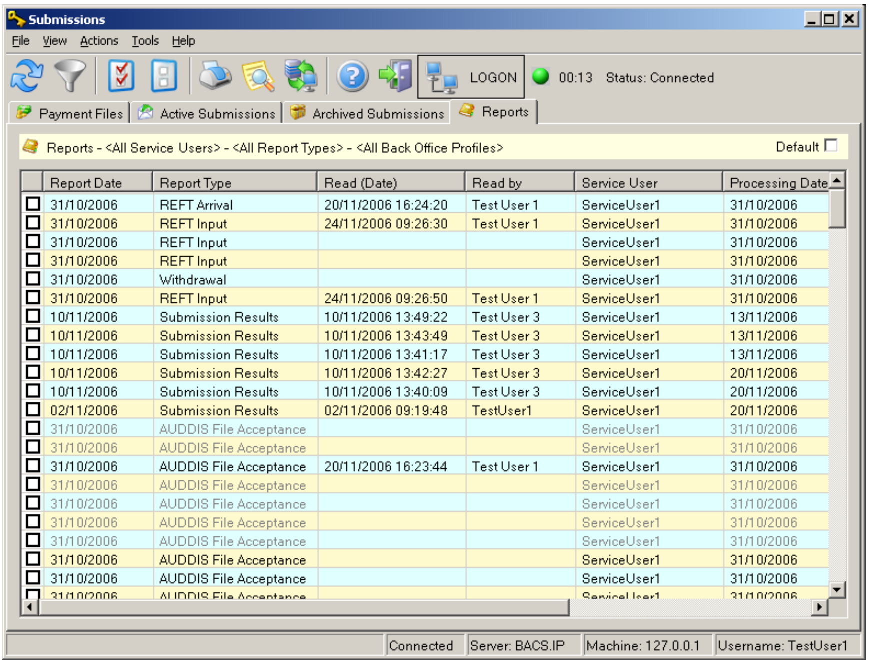
This is the "Select location for XML file" dialog. Simply use it as a normal Windows Save As dialog.

9.6.4.5 Synchronise reports with BACS

This option requires the use of a smartcard and PIN. Once activated, you will see the "Logon to BACS" dialog and the Enter PIN dialog. The Logon to BACS dialog will show you information about the progress of the connection. Once the **OK** button is enabled, click it to return to the Reports page.

Synchronising reports with BACS means that the software will check for reports at BACS and download any that are more recent than the ones you already have. As you obtain each processing report using this option, the status of the associated submission will be updated on the Active Submissions page to reflect the particular stage it is at in the processing cycle.

You will see that each report type is displayed in grey until it has finished being downloaded. Then it will be shown in black, indicating that the report can now be read.



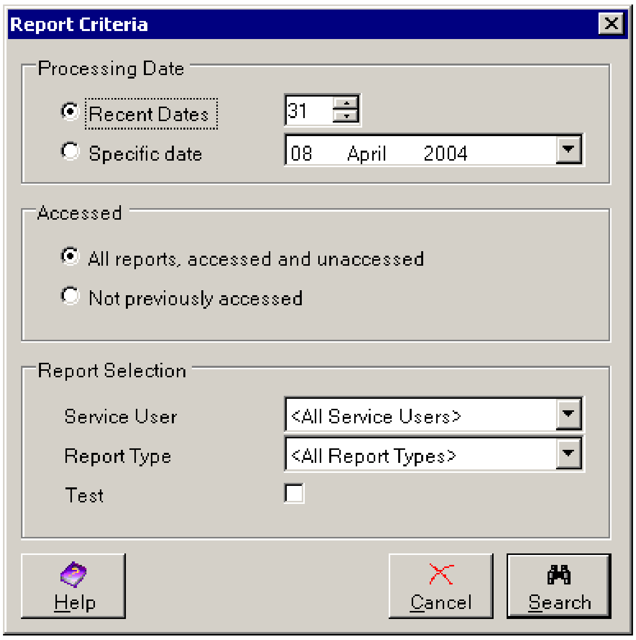
The diagram above shows synchronisation in progress, with some reports in grey and some in black. Use the Refresh option to see them all in black once synchronisation is complete.

9.6.4.6 Search for reports

This option allows you to search the BACS system (not BACS.IP) for one or more reports, by specifying a variety of search criteria. Select this option to bring up the Report Criteria dialog, shown below.

If the search results in no new reports, you will see a message in the main tool bar telling you that the reports list is up to date.

If the search is successful, the report(s) will be displayed in the reports view but will not be downloaded. To download them, use the **Actions >> Download Report** option.



The dialog is divided into three sections: Processing Date, Accessed and Report Selection.

Processing Date – Recent Dates

Select this option if you want to search for reports with processing dates from the last x days. Use the up and down arrows to select the number of days to be searched. The lower limit is 1 and the upper limit is 31.

Processing Date – Specific Date

Select this option if you want to search for reports with a specific processing date.

Accessed

In this section you can choose to search for reports that you have not previously accessed, or for all reports, both accessed and unaccessed.

Report Selection

In this section you can select a specific service user and/or a specific report type to search for.

Test tickbox

Select the Test tickbox if the report(s) you wish to find are test reports.

9.6.5 Reports – context menu

The context menu is available by clicking with your right-hand mouse button anywhere within the data area.

The available context menu actions are:

- View Report – view the selected BACS report. Please refer to the section entitled "View Report".
- Print Report – print the selected BACS report. Please refer to the section entitled "Print Report".
- Synchronise with BACS – check for reports at BACS and download any that are more recent than the ones you already have. Please refer to the section entitled "Synchronise reports with BACS".

9.6.6 Report types

There are several report types available from BACS. These are divided into two categories: Processing reports and Advices for returns

You will only be able to download reports from BACS during the time of the BACSTEL-IP Service Availability Window, which runs from Monday 07:00 hours to Friday 23:00 hours.

For a full description of all report types that may be downloaded from BACS, please refer to Appendix G of the BACS Service User Guide.

9.6.6.1 Processing reports

Processing reports contain details relating to data that you have submitted to BACS, such as whether the data arrived, whether the data has been processed etc. These files provide you with a detailed account of what is happening to the data you submitted, at each stage of its progress through the BACS system.

The types of the processing reports you may download are as follows:

- Input – produced following the successful validation of a day section of a payment file. It is therefore available on input day of the processing cycle. A separate input report is produced for any Direct Debit instructions contained in a payment file. Any payment instructions that have been amended, rejected or returned by BACS will be highlighted on the report. You must therefore check each Input report as soon as it is available, and contact your bank if you have any concerns. Once you have read an Input report, the associated submission will be archived automatically after the number of days specified in the File Retention section of the Administrator. A more detailed explanation of Input reports is given below.
- Withdrawal – If you submit a payment file in error, you can contact your bank on or before input day to ask for the payment file to be withdrawn. This will result in the creation of a withdrawal report. When you receive the withdrawal report you should check that the appropriate data was extracted.
- Rejection Arrival – A rejection arrival report is generated when BACS initial validation rejects a future-dated payment file.

Input reports

Input reports are sent out for each processing day referred to in the payment instructions. For a submission containing one payment file for a single processing day, one input report would be produced. For a submission containing multiple payment files each having a single processing day, an input report would be created for each processing day.

For example, for a submission containing multiple payment files sent on the 11th of the month, where the payment files have processing dates of the 12th, 13th and 14th, an input report will be produced for each of the three processing dates.

9.6.6.2 Advices for returns

Advices for returns contains details of the actual payments that have been made.

The names of the Advices for returns reports you may download are as follows:

- ARUCS – Automated return of unapplied credits service
- ARUDD - Automated return of unpaid Direct Debits

Both these report types are concerned with payment instructions that cannot be applied by the destination bank/building society. The payment instructions will be returned to the originating account. These reports list the payment instructions that could not be applied and have therefore been returned. These payment instructions should appear in the service user's account on the next valid input/processing day after the date of the report.

9.6.7 Input report timing

Turnaround of reports with BACSTEL-IP is done within a few hours, as opposed to overnight with the old system. Taking the example of a submission containing multiple payment files sent on the 11th of the month, where the payment files have processing dates of the 12th, 13th and 14th, this means that the Input report for the processing date of the 12th can usually be collected on the 11th, the report for the 13th can be collected on the 12th, and the report for the 14th can be collected on the 13th.

Similarly, a submission containing a multi-payment day payment file would also result in multiple input reports being produced for each date in the file.

9.7 Error handling

BACS.IP is required to handle any errors that occur during the creation and transmission of submission files to BACS.

If BACS themselves find any errors, you will be informed of the errors in BACS reports, available on the Reports page of the Submissions application.

If the BACS.IP software finds any errors, these will be reported to you by the software itself, so that you can make the necessary corrections. Errors found during the Validate and Sign process will be reported on the Validate and Sign dialog.

Errors reported will include:

Invalid account details

Unauthorised user

Failure to sign payment file (if required)

Failure to sign submission

Failure of any kind when reaching BACS

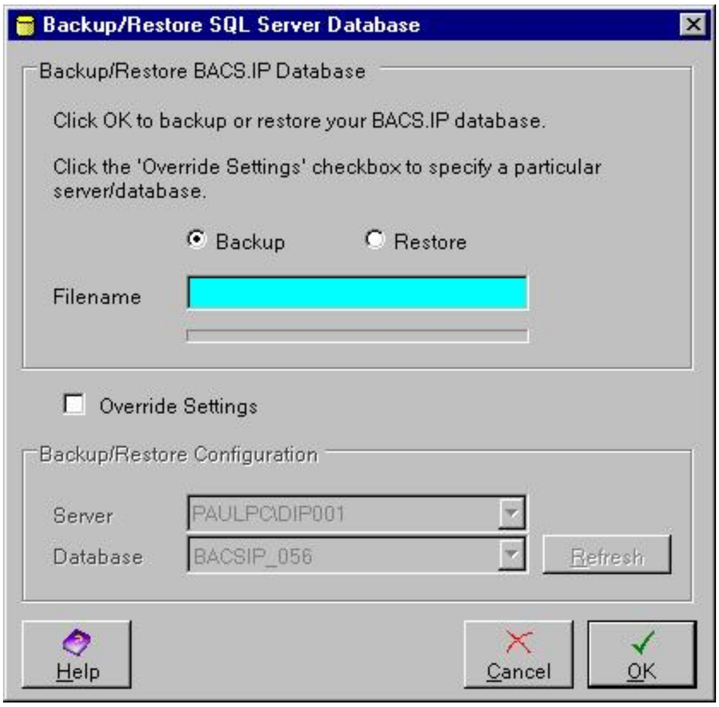
10 Database Backup and Restore

10.1 Introduction

We recommend that you backup the BACS.IP database regularly. This can be achieved quickly and easily from the Start menu. The frequency with which you should perform the backup will depend on your usage of the BACS.IP software. A bureau, for example, should probably perform a daily backup at the very least.

10.2 Perform a backup or restore

Select Start >> Programs >> Data Interchange Plc >> BACS.IP >> BACS.IP Database Backup to bring up the following dialog.



This dialog is used for both backup and restore operations.

First select the appropriate operation (Backup or Restore).

In the Filename field, type in the **full path and filename** of the Backup file (i.e. for a Backup, this should be the name of the resultant backed up file. For a Restore, this should be the name of the file that the database is to be restored from).

N.B. If your database is held on a server that is not on your local machine, the file path you type in will be deemed to be on the remote server, unless you provide the UNC (Universal Naming Convention) path to the local machine.

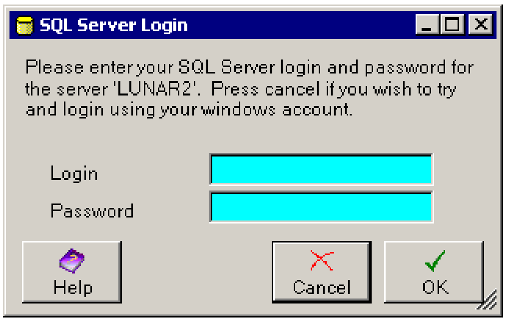
Please note that you must specify an existing directory in which the backup file is to be saved. You may give the filename any extension or none at all.

The default database name and server location (shown in the Server and Database fields at the bottom of the dialog) will be used for the operation, unless you select the Override Settings tickbox. This will enable these fields and allow you to change the details using the dropdown arrows.

The Refresh button, only available if you have selected the Override Settings tickbox, can be used to reset the Database field to the value it held when you opened the dialog.

10.2.1 Using a non-default server

If you select a Server for which a login and password details are required, you will see a dialog similar to the example below.



Type your login and password in the appropriate fields and click **OK** to continue. Otherwise click **Cancel** if you wish to try and login using your Windows account.

10.2.2 Performing the operation

Please note that the BACS.IP server may be left running while you perform a backup, but you must close the server before running a restore.

Whenever you attempt to run a restore, you will see the following message box, whether the server is running or not.

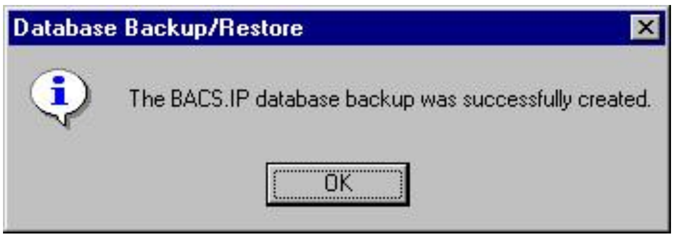
Check in the system tray (usually in the bottom right-hand corner of your screen) for the BACS.IP server icon. To check for the relevant icon, hold your cursor over the icon and its name will appear. To close the server, right-click on the icon and select Shut Down from the context menu that appears. You can now proceed with the restore.

N.B. Users running BACS.IP as a system service will need to stop the service in order to run a restore. Please see the section entitled "Stopping" for details of how to do this.

Once the restore is complete, you can start the server again.

Whether you perform a backup or a restore, the success of the operation will be indicated to you via a message box, as shown below.

For a backup



or for a restore

Clicking **OK** will close both the message box and the Backup/Restore dialog.

11 Frequently asked questions

11.1 How do I import payment file data to BACS.IP?

BACS.IP supports Standard18, CCM LPAY, Profund A0210A1 and Selven file formats by default. If you are using a different file format you must first configure the details of the files using the File Formats section of the Administrator application.

If you are using a message format already supported by BACS.IP or you have configured your file formats you can then configure the back office details using the Back Office section of the Administrator application. Once your back office system has placed files into the specified directory, BACS.IP will detect and import them automatically into the Submissions application.

For full details of how to configure the file format details, please refer to the section entitled “File Formats Configuration”.

For full details of how to configure the back office details, please refer to the section entitled “Back Office Configuration”.

11.2 How do I submit a payment file to BACS?

You cannot submit a payment file as a payment file. It must first be used to create a submission. A submission may contain one or more payment files.

Before you send the submission to BACS, you must first validate and sign it, using the Validate and Sign option from the Active Submissions page of the Submissions application.

In the case of service users who may sign payment files, you will notice during the Validate and Sign process that each set of Payment File Summary details warns you that the payment file has not been signed. They should be signed before you sign the submission itself (remember to select the appropriate signing user from the dropdown list first). A **Sign** button appears with each set of Payment File Summary details to allow you to sign each payment file. If you accidentally sign the submission before signing the payment file(s), you can return to the Active Submissions page, reset the status of the submission, and then go through the Validate and Sign process again.

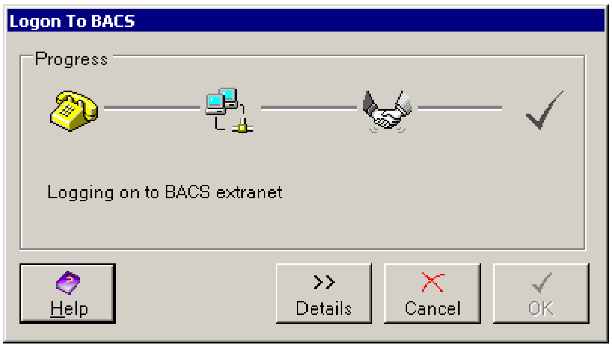
11.3 How do I send a submission to BACS?

Open the Active Submissions page of the Submissions application. Select a submission from the list presented to you and use the Send option (either the Send icon or **Actions >> Send**). If the submission has not yet been signed you will be asked to sign it before it will be sent.

11.4 How do I retrieve a BACS report about a submission?

Open the Reports page of the Submissions application. Select the Synchronise with BACS option to download all the currently available reports from BACS. This action requires you to logon to BACSTEL-IP, so you will need a valid smart card and your PIN.

You will see the dialog shown below, which shows you the progress of your attempted connection to BACS:



If you have any difficulty logging onto BACS, click on the **Details** button to see a full description of the problem. You will then have to click the **Cancel** button to return to the Reports page.

If you made a successful connection, you will see that the list of available reports has been, or is being, updated. Once the update has completed, click the **OK** button to close the Logon to BACS dialog. Now you can select any of the reports to view its contents.

Once the reports are available from the Reports page, you will also be able to access the same reports from the Active Submissions and the Archived Submissions page.

11.5 How do I view a BACS report about a submission?

Reports are available from the Active Submissions page, the Archived Submissions page and the Reports page. Depending on your configuration as a system user, you may not be able to see all three of these pages. However, the reports available on each page are identical; it is simply how you access them that differs.

From the Active Submissions page and the Archived Submissions page, select the checkbox of the submission you are interested in, then select **Actions >> BACS Reports** and choose a report from the list offered to you.

From the Reports page, use a combination of the values in the Report Type and Submission Serial columns to select the checkbox of the report and submission you are interested in, then select the View option (either **Actions >> View Report** or the View icon from the tool bar).

11.6 How do I update my Industry sort code list?

You may download updated industry sort code lists from the Data Interchange Plc website. You must then copy the file(s) to the correct location. A set of instructions will be provided for this purpose, together with the updated list.

11.7 How do I know if BACS received my submission?

BACS.IP will display a message to confirm that your submission has been received for processing by BACS. If it has not been received you will see a message giving a reason why the submission could not be sent.

11.8 Why doesn’t my password work?

Check that you have not got your Caps Lock key on, as your password is case sensitive. If it still doesn't work, you will have to have your password reset by a User Administrator.

11.9 Why doesn't my PIN work?

Check that you have not got your Caps Lock key on, as your PIN is case sensitive. If it still doesn't work, contact your bank.

11.10 The processing date has passed since I signed a submission

The signature of a submission or payment file is only valid as long as the data is not changed after applying the signature. Similarly, if you sign a submission or payment file and do not send the submission to BACS on the same day as it was signed, the processing date may pass, making the signature invalid.

If you wish to change the data, you can use the Validate and sign dialog to make changes to invalid data, and re-sign. A signature can also be removed from a submission and its payment files by selecting 'Reset Status' from the Active Submissions view.

11.11 How do I backup my database?

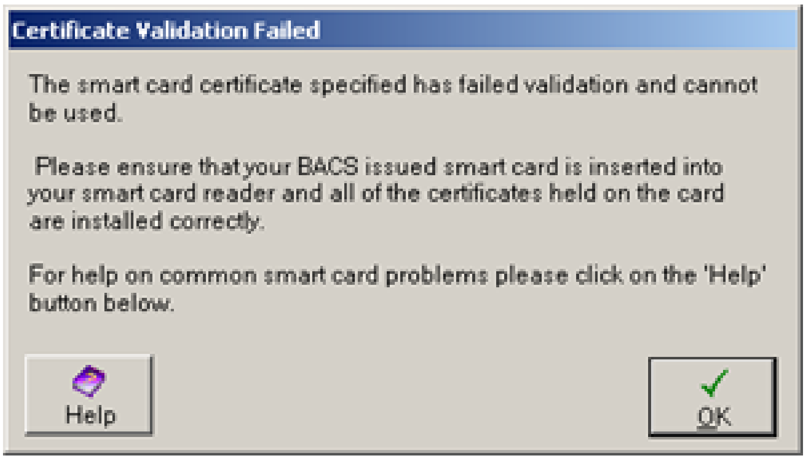
For full details of how to backup your BACS.IP database, please refer to the section entitled "Perform a backup or restore".

This section also contains details of how to restore your database from the backup.

11.12 Certificate Validation Failed

Certificate validation is the process of ensuring that the certificates you are trying to use (and all certificates in the certificate chain) are valid. Certificates can be invalid if they pass their expiry date, are revoked by the issuer or if the certificate is not installed correctly.

The 'Certificate Validation Failed' dialog (shown below) can be shown for a number of different reasons at different points in the BACS.IP software.



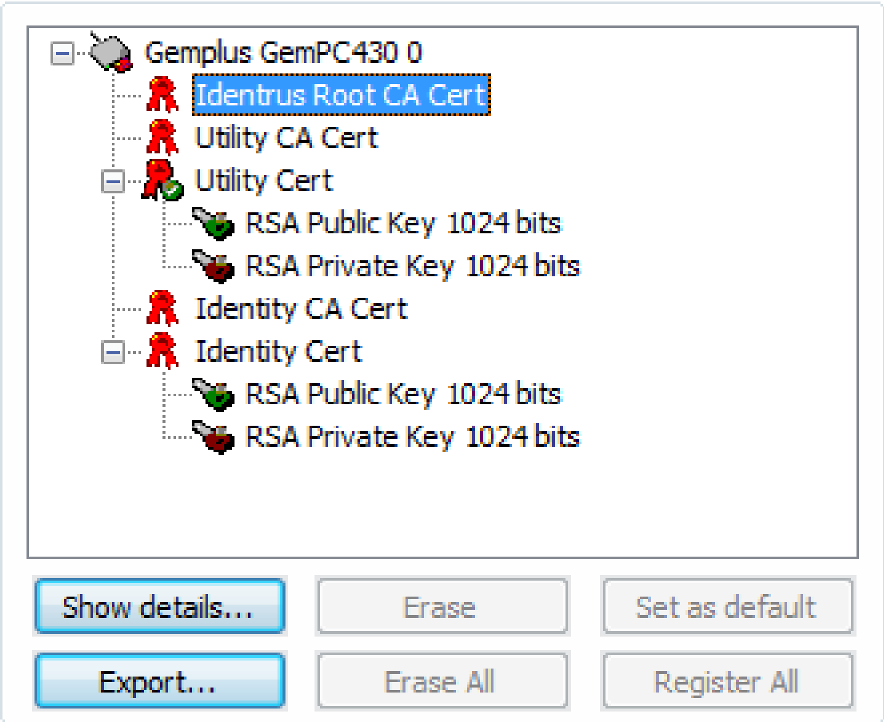
Please ensure that your smart card reader is properly connected to your PC and that your BACS issued smart card is properly inserted into the smart card reader.

Please ensure that the smart card you are using is still valid, the expiry date of the card should be printed on the front of the card. If your smart card is out of date please contact your issuing bank for a new one.

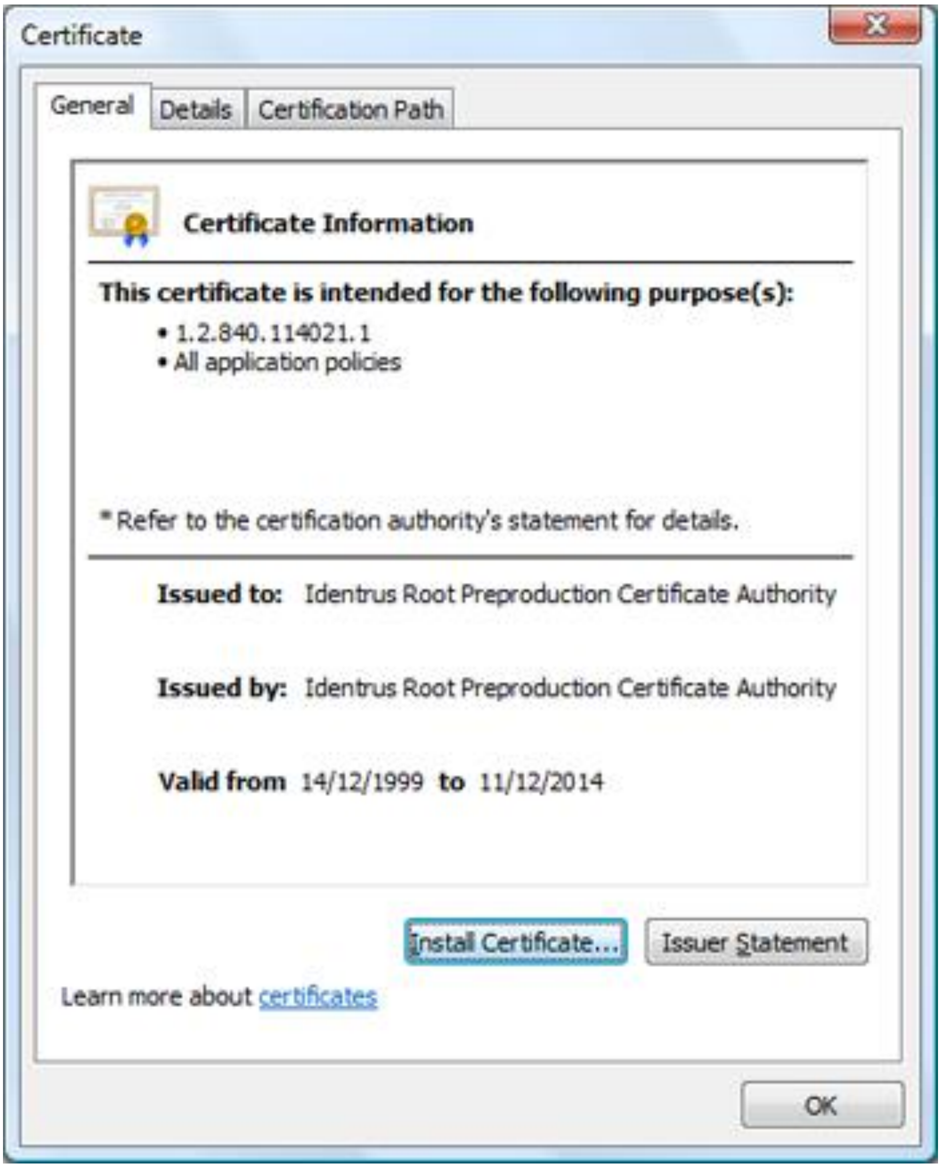
If you are using the Microsoft Vista operating system there is a known issue that may be preventing your smart card from validating. This issue occurs because of the new 'User Account Control' mechanism used by Vista. Please follow the steps below to ensure this issue does not affect your machine.

1. Insert your smart card into the smart card reader.
2. From your Windows Start menu right click on the ‘GemSafe Toolbox’ application, select ‘Run as administrator’. You should see the window below:

3. Select the certificates icon which should show the following screen:



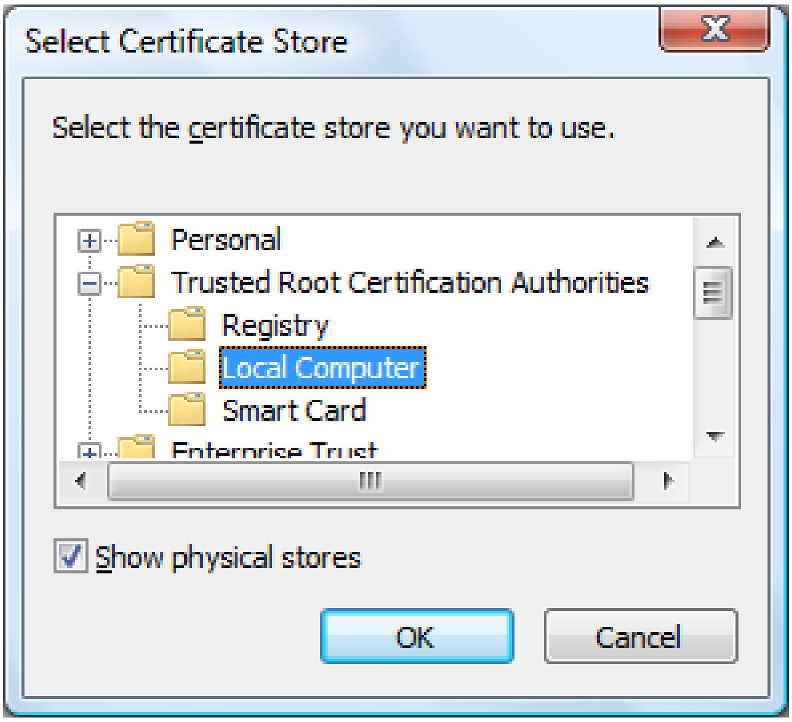
4. Select the certificate at the top of the certificate tree - this certificate should include ‘Root CA Cert’ in the title. Press the show details button. You should then see the following screen:



5. Press the ‘Install Certificate…’ button. This should load the Windows ‘Certificate Import Wizard’. Press next on the first screen of the wizard to reveal the following:

6. Select ‘Place all certificates in the following store’ and then press the ‘Browse…’ button.

7. From the ‘Select Certificate Store’ window check the ‘Show physical stores’ check box. Expand ‘Trusted Root Certification Authorities’ and then select ‘Local Computer’.



If ‘Local Computer’ is not listed you must go back to step 2 and be sure to start the Gem Safe application as an administrator.

8. Complete the ‘Certificate Import Wizard’. Your smart card should now be validated correctly when used in BACS.IP.

12 BACS.IP Glossary

12.1 Glossary

Additional contact

A service user can have as many additional contacts as needed. However, there is no requirement to have any at all. Additional contacts are set up by Primary Security Contacts. An additional contact is granted privileges to carry out certain functions on behalf of a service user. Some privileges are only available to primary security contacts.

Arrival

In relation to the processing cycle, arrival is the first stage where a submission is transmitted to (arrives at) BACS for processing (arrival, input, processing, entry).

ARUCS

Stands for Automated Return of Unapplied Credits Service. The service allowing banks/building societies to return to the originator any credit payment instructions they could not apply. The credit is returned to the originating account. BACS generates a report for the originator detailing the credit being returned and the reason for the return.

ARUDD

Stands for Automated Return of Unapplied Direct Debits. The service allowing banks/building societies to return to the originator any Direct Debit payment instructions they could not apply. The debit is returned to the originator's account. BACS generates a report for the originator detailing the Direct Debit that is being returned unpaid and the reason for the return.

BACSTEL-IP

A service providing a highly secure access channel into BACS. It uses internet technology and public key infrastructure (PKI) security to allow access to BACS payment services including payment file processing, report accessing etc. BACSTEL-IP carries out some online validation of submissions.

Bureau

A type of service user. Submits payment files to BACS on behalf of a number of other service users. A bureau is a type of direct submitter but a bureau cannot originate payment instructions. There are different types of bureau:

Commercial – submits payment files on behalf of third parties and must be certified as a BACS approved bureau.

In house – submits payment files on behalf of other service users that are all part of the same company or group of companies as the bureau

Other – any bureaux that do not fit into the other two categories e.g. a sponsor service operated by another organisation on the sponsor's behalf.

Bureau service user number

A number allocated to a bureau to uniquely identify it to BACS. A bureau service user number starts with a B followed by 5 digits.

CSV

Comma Separated Value. This is a file which contains data values separated by a comma and can be imported into common applications such as Microsoft Excel.

Contact

Contacts are the people who act on behalf of service users. Contacts are registered on BACSTEL-IP and are given privileges allowing them to carry out functions for service users. There are two types of service user contacts: Primary Security Contacts and Additional Contacts.

Digital certificate

Assigned by a trusted certificate authority, a digital certificate is the form in which PKI credentials (public and private keys) are issued. Certificates are held on your smart card.

Digital signature

The result of a calculation performed on a file/message using the signer's private key. The signature is attached to the file or message before it is sent. If the receiver can decrypt the message with the signer's public key, they can be sure of the identity of the sender and they can determine if the contents of the file or message have been altered after it was signed.

Earliest processing date

When a submission contains payment files with different processing dates, the processing date of the submission is deemed to be the earliest processing date of all the payment files within the submission.

Entry

In relation to the processing cycle, this is the last stage where the payment instruction is applied to (enters) the destination account (arrival, input, processing, entry).

Input

In relation to the processing cycle, this is the last stage where payment instructions are input into the BACS validation system (arrival, input, processing, entry).

Input report

A BACS generated report produced following the successful validation of a day section of a payment file. Any payment instructions that have been amended, rejected or returned by BACS are highlighted on the report.

Multi-file submission

A submission that contains more than one payment file. Multi-file submissions can only be submitted by a bureau.

Multi-processing day file

Also known as an mpd file. A payment file that contains payment instructions that are to be processed on different days. All payment instructions with the same processing date are grouped into day sections.

Originator

A service user who originates payment instructions, whose bank/building society account details make up the originating account information in a payment instruction, and who is responsible for those payment instructions. An originator can be either a direct or an indirect submitter.

Payment file

A set of payment instructions in the correct format to be submitted for processing by BACS. A payment file can contain several day sections and account sections.

Payment instruction

A data record that effects the movement of money from one account to another or that sets up a Direct Debit at a destination bank/building society. A payment instruction can be either a debit, a credit or a Direct Debit Instruction (not including any signed authority).

PKI credentials

PKI stands for public key infrastructure. PKI credentials is the collective term for the public and private keys issued to an individual in the form of a digital certificate. PKI credentials are used for authentication and encryption.

Primary security contacts

Also known as PSCs. Each service user must have at least two primary security contacts, which have been set up by your bank. These can be given the privilege to set up and maintain additional contacts to act on behalf of that service user. (PSCs can only be set up by the service user's bank). PSCs can also be allowed to maintain certain service user reference data. Other privileges available to PSCs are the same as those granted to additional contacts. A PSC must have a smart card, enabling him to access the BACS website.

Private key

A cryptographic key used in public key infrastructure systems, used for signing and decrypting messages. A private key is associated with a specific public key.

Processing

In relation to the processing cycle, this is the stage where the payment instruction is processed by the bank/building society (arrival, input, processing, entry).

Processing cycle

The minimum time taken for a payment instruction to be submitted to BACS for processing and the time it reaches the destination account. The processing cycle has four stages: arrival, input, processing and entry.

Public key

A cryptographic key used in public key infrastructure systems, used for encrypting messages and verifying signatures. A public key is associated with a specific private key.

Public key infrastructure

Also known as PKI. A system to verify the validity of parties involved in electronic communications and to secure electronic data transmissions. PKI involves digital certificates, certificate authorities and other registration authorities. PKI security is used by BACSTEL-IP. PKI uses two "keys": a public and a private key. A message encrypted with a private key can only be decrypted with the associated public key (and vice versa).

Service user

A company, group of companies, charity etc that is sponsored to use one or more BACS services.

Service user number

A number allocated to a service user to uniquely identify it to BACS. A service user number is 6 digits long.

Signing Solution

This consists of a smart card reader and signing software. This may be supplied to you by Data Interchange Plc or by your bank. You will have to install the signing software on a client machine before you can associate any system users with smart cards in the Administrator.

Single file submission

A submission that contains only one payment file. Single file submissions can be submitted by all direct submitters.

Single processing day file

Also known as an spd file. A payment file that contains payment instructions that are all to be processed on the same date (the date specified in the submission).

Smart card

A plastic card with an embedded microchip that is used to store a contact's digital certificate (public and private keys). The digital certificate is used to authenticate the holder and digitally sign data.

Sponsor

Any financial institution that can authorise service users to use BACS. Also referred to as sponsoring bank.

SSL

SSL (Secure Socket Layer) is the most common form of Internet security and is used in particular for HTTPS transactions over the Internet.

Standard 18

The standard that defines the required format for files and records input to BACS and the format of files and records output by BACS to the banks/building societies.

Submission

A payment file or files transmitted to BACS for processing.

Three-day cycle

The service offered by BACS where the minimum time taken for the processing cycle is three processing days. Input, processing and entry occur on consecutive processing days.