

# Xact File Transfer via Internet

## User Guide

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# User guide

## Foreword

Xact File Transfer via Internet allows clients to:

- send batches of instructions (instruction files) to Clearstream Banking for clearing and settlement processing,
- receive report files from Clearstream Banking that can be automatically scheduled and delivered to pre-determined folders;

from their desktop via the public internet.

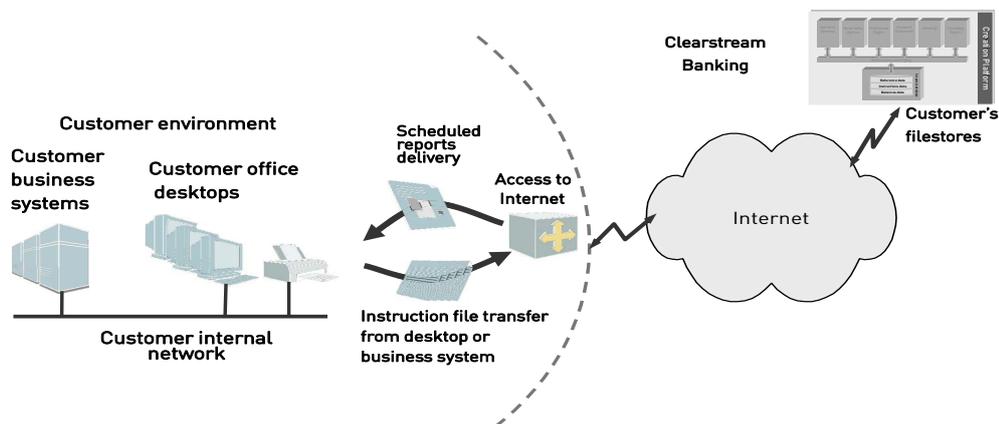
## Summary of Xact File Transfer via Internet

Xact File Transfer via Internet is a workstation-based file transfer service that provides you with an easy to use and efficient means of sending instructions and retrieving reports.

Instruction files are sent via the dedicated web site [https:// www.cdinternet.com](https://www.cdinternet.com) to Clearstream Banking where they are stored in a client-specific area (the "filestore"). They are then immediately transferred to the Creation platform for clearing and settlement. Reports generated by the Creation platform are stored in the filestore from where you can browse them or save them locally.

Xact File Transfer via Internet is an efficient, secure and reliable file transfer connectivity solution. When used with Xact Web Portal, it gives you the benefits of enhanced instruction life cycle monitoring, on-line queries, exception handling and large-volume reporting providing accurate, real-time information on the status of any instruction at any time.

The diagram below shows a typical network design associated with the Xact File Transfer via Internet service:



## Xact File Transfer via Internet technology

The key objective of the Xact File Transfer via Internet service is to provide a file transfer service to your desktop. Xact File Transfer via Internet is a highly secure service that is accessible from your desktop, provided that you have access to the internet.

## Xact File Transfer via Internet filestores

Each Xact File Transfer via Internet client requires at least one filestore. A filestore is a client folder on the Xact File Transfer via Internet system which contains four sub-folders. The four sub-folders are used to:

- upload and send instruction files to Clearstream for processing;
- upload and send a list of securities for the Corporate Action Reference Data Report;

- view or download previously sent instruction files;
- view or download generated client scheduled reports.

Each filestore is assigned a unique Xact File Transfer via Internet delivery address. Additional filestores can be set up for reports or for instructions, or for both.

Filestores are created either by:

- An Xact Web Portal OU Administrator completing a request with the details of the address screen: this is accessed from the Xact Web Portal User Management (Administrator view) menu, under "File Transfer Management, Address", or
- When the first Xact File Transfer via Internet user for a client is created: if the Xact Web Portal OU Administrator does not specifically request a filestore, a default filestore will be generated and configured with the pre-set values when the client's initial Xact File Transfer user is generated.

The pre-set values for filestores are:

- Enabled for both instructions and reports;
- Compression is disabled;
- ISO Reporting File Header/Trailer - ON;
- All Clearstream Banking client accounts are available for instruction processing;
- All OU and financial institution accounts are available for selection when creating reporting schedules.

Filestores are named WEBXXXXXX

**Note:** Clearstream Banking reserves the right to verify with clients if multiple filestores are required.

## Scheduling reports via Xact Web Portal

All reports available through Xact File Transfer via Internet can be scheduled using Xact Web Portal . For details of report scheduling via Xact Web Portal, please refer to the Clearstream Banking Xact Web Portal User Manual and the online help provided within Xact Web Portal.

## Instruction and report formats supported by Xact File Transfer via Internet

You can send

- non-compressed ISO 15022 formatted instruction files with the filename extension .iso;
- compressed instruction files with the filename extension .gz;
- .csv files with a list of securities for the Corporate Action Reference Data Report.

to Clearstream Banking using Xact File Transfer via Internet.

The following report formats are supported by Xact File Transfer via Internet.

- PDF (Portable Document Format) allows you to receive business information in a printable report format. PDF reports can be viewed, printed, and archived.
- XML (eXtensible Mark-up Language) format that allows you to integrate your reports into internal business applications for reconciliation and other purposes. For instance, in Microsoft Excel (version 2002 or later), it is possible to develop a macro to analyse and use the content of reports.
- ISO format is also used in Xact via Swift. Xact via Swift is the Clearstream connectivity solution that is based on the underlying SwiftNet FIN service.
- TXT format is supported for Triparty Repo reports.

## Using Xact File Transfer via Internet

This section details the steps and procedures that Xact Web Portal OU administrators and end users must follow in order to use the Xact File Transfer via Internet service.

The main steps for OU administrators are:

- requesting the setting up of Xact File Transfer via Internet delivery address(es) and filestore(s);
- creating a Xact File Transfer via Internet user;
- releasing a user's set-up request;
- generating a user's Xact File Transfer via Internet certificate;

The main steps for end users are:

- installing a Xact File Transfer via Internet user certificate in order to access the service;
- accessing Xact File Transfer via Internet;
- sending instruction files and list of securities files;
- retrieving reports and documents.

## | **Setting up Xact File Transfer via Internet - Xact Web Portal OU administrator tasks**

For information about the Setting up of Xact File Transfer via Internet - Xact Web Portal OU Administrator tasks, please refer to the Xact Web Portal user manual under Chapter 11. User Management/File Transfer Management.

## Setting up Xact File Transfer via Internet - end user tasks

### Installing user credentials

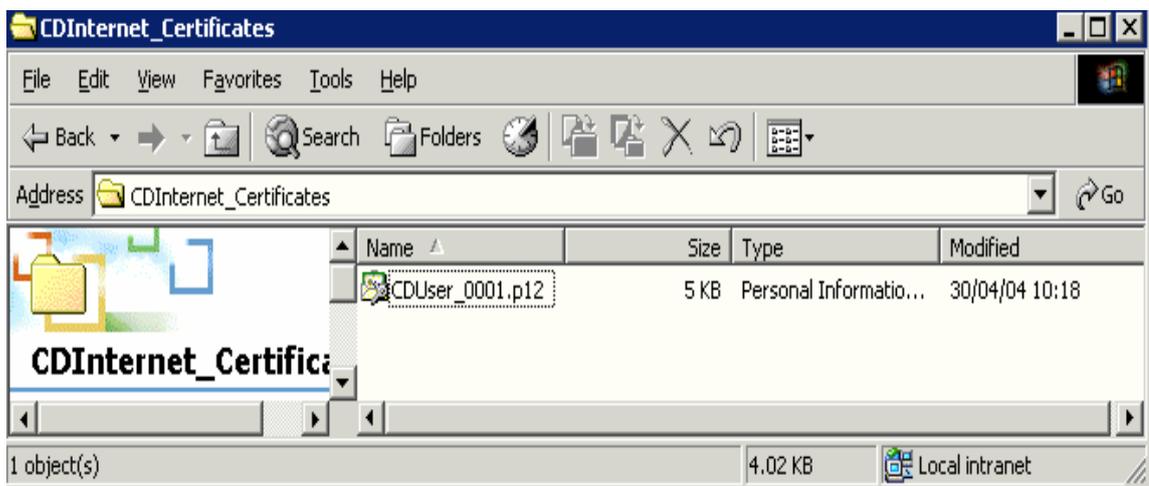
Each user of Xact File Transfer via Internet must install his (or her) user credentials in his (or her) browser in order to be able to use Xact File Transfer via Internet.

Each user's authentication certificate will have been generated by one of the OU administrators.

To install your certificate, you must have access to your Xact File Transfer via Internet credentials file.

The following steps guide you in installing your certificate in your browser.

- Open the file browser and locate the credential file or open your email with the attached credentials.



- Select and double click on the credentials file. This opens the relevant Windows folder either from the Windows file directory in which the OU Administrator has saved the certificate or from where you have access to the credentials file. (e.g. in an email attachment).

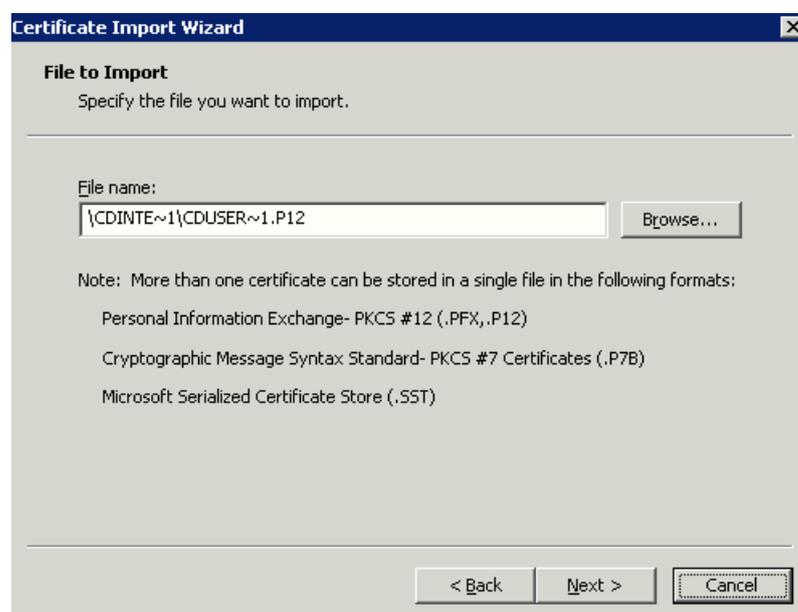
The Welcome to the Certificate Import Wizard window is displayed:



- Click on **Next**.

The File to Import window is displayed.

Select the name and path of the certificate file you wish to import. By default, this window shows the path of the certificate you selected in the previous step.



- Select file name and click on **Next**.

The Password window is displayed. Enter the password for your credentials (issued by your OU administrator).

For security reasons Clearstream recommends the settings shown below:

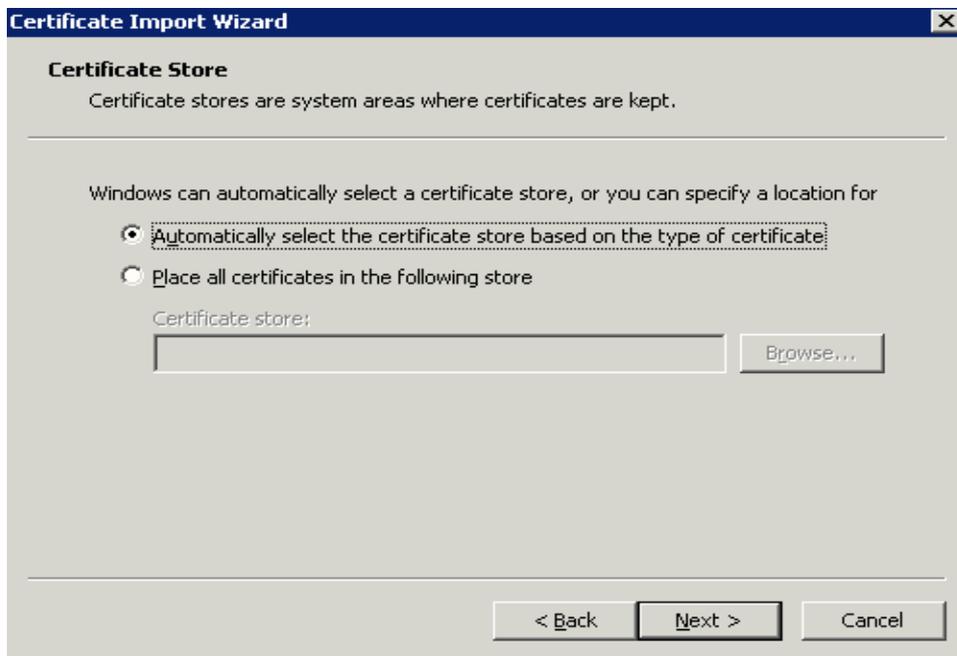
Select "Enable strong private key protection". You will be prompted by the browser if your private-key/certificate is used by an application or to make a connection.

Unselect "Mark this key as exportable". You will not be able to extract the private-key/certificate from the browser again. Therefore please keep your original .p12 file in a safe place in case you need to import it again or on a different browser.



- Click on **Next**.

The Certificate Store window is displayed:



- Select where you wish to save the certificate.

**Automatically select the certificate store based on the type of certificate:** this option will store your certificate with the browser's default file system. This is the usual option selected for Xact File Transfer via Internet Certificates.

**Place all certificates in the following store:** this option allows you to choose where your certificate will be stored within the Windows file structure or Local Area network.

- Select desired location, and click on **Next**.

The Completing the Import Certificate Wizard window now appears.

This indicates that the import has been successful and shows the certificate settings you selected.



- Select **Finish** to complete the certificate import process.



- Click on **OK** on the "Import was successful" window, when it appears.

You have installed the Xact File Transfer via Internet certificate successfully and you can now access and use Xact File Transfer via Internet.

## Accessing Xact File Transfer via Internet

To access the Xact File Transfer via Internet web site, enter:

`https://www.cdinternet.com`

in the web browser address field.

You are authenticated automatically for using the Xact File Transfer via Internet certificate within your browser; no user-id or password is required.

If only one certificate is present in your browser, or if you selected during the import process to be prompted every time a key is used for an application, the browser will automatically use this certificate to authenticate your access to the Xact File Transfer via Internet service. Upon successful authentication, the Xact File Transfer via Internet main window is displayed.

If more than one certificate is stored in your browser, the following window requiring you to select a Xact File Transfer via Internet certificate is displayed:



- Select the appropriate authentication certificate. The name of the certificate is the user ID set by the Organisational Unit (OU) Administrator when submitting the request for the Xact File Transfer via Internet certificate.
- Click on **OK**

The browser will use the selected certificate to authenticate your access to the Xact File Transfer via Internet service. Upon successful authentication, the Xact File Transfer via Internet main window is displayed.

## Xact File Transfer via Internet main window

clearstream | DEUTSCHE BÖRSE GROUP Logout

Xact File Transfer Filestore: webxx057

FileStore

Files		
Name	Size [KB]	Date
<a href="#">Instructions_sent</a>		Aug 28 2017 15:04
<a href="#">Instruction_inbox</a>		Aug 28 2017 15:04
<a href="#">Reports</a>		Aug 29 2017 12:02
<a href="#">Reports_downloaded</a>		Aug 25 2017 11:43
<a href="#">Terms_and_Conditions</a>		Aug 18 2017 12:55

Last page refresh: 8/30/2017 4:26:14 PM

The Xact File Transfer via Internet main window shows the filestore that is available to you. The folder **Filestore** indicates the root level of the filestore.

The filestore contains five sub-folders:

- Instruction\_inbox; instruction files to be sent to Clearstream Banking;
- Instructions\_sent; instruction files sent to Clearstream Banking for processing;
- Reports - reports that have been received from Clearstream Banking;
- Reports\_downloaded - reports that have been accessed by the client.

## Sending instruction files

To send an instruction file to Clearstream Banking for processing:

- Click on the Instruction\_inbox folder.

The Instruction\_inbox window is displayed.

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Xact File Transfer Filestore: webxx057

FileStore

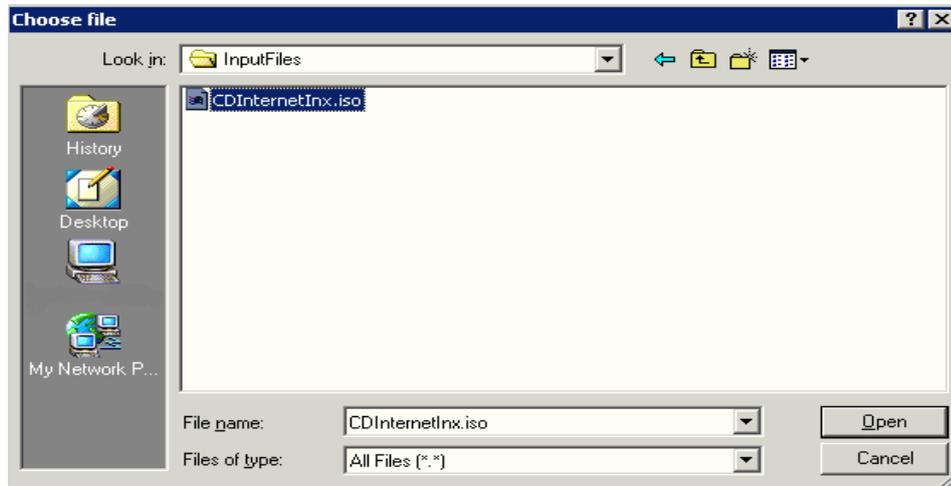
[Instruction\\_inbox](#)

Files		
Name	Size [KB]	Date

Last page refresh: 8/30/2017 4:29:32 PM

- Click on the **Browse** button.

The Windows file panel appears:



- Select the instruction file to be sent to Clearstream Banking for processing.  
(Only files with .iso and .gz file extensions will be accepted by Clearstream Banking for instruction processing. Files with .csv file extensions will be accepted for lists of securities for the Corporate Action Reference Data Report)
- Click on **Open**

The **Instruction\_inbox** folder appears with the instruction file name and path in the browser window.



- Click on **Send File**.

This will initiate the file transfer process and immediately send the instruction file to Clearstream Banking for processing. The internet explorer task bar will display the progress of the file transfer.

## File size

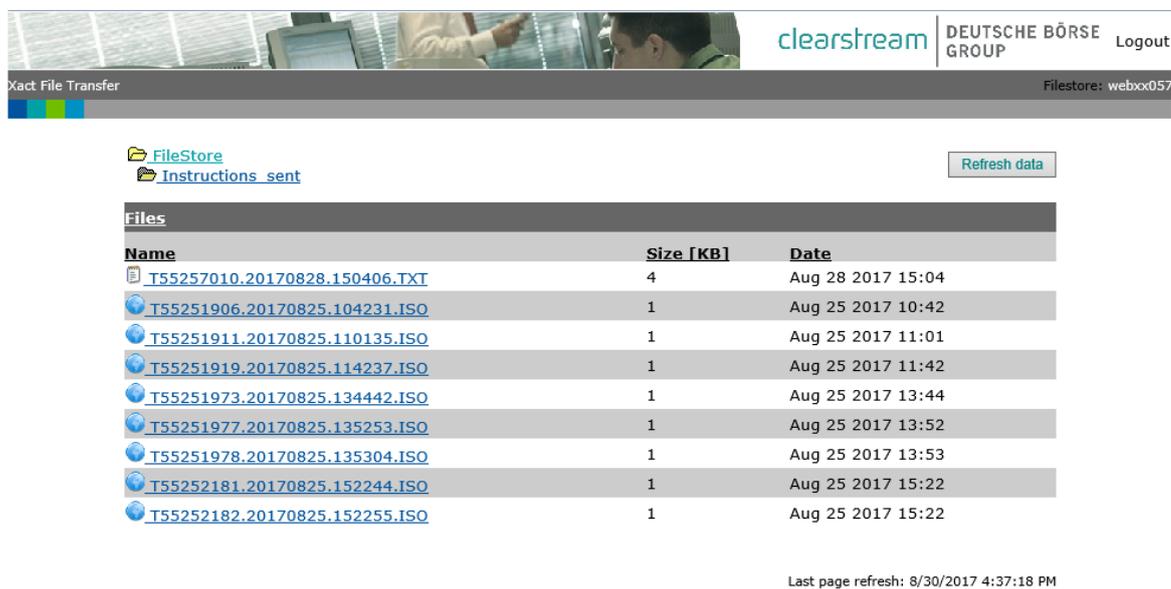
Instruction file sizes of up to one megabyte (approximately 1000 instructions) will be processed almost immediately.

- Files in excess of one megabyte may experience short delays in being delivered to Clearstream Banking.
- Files greater than 10 megabytes in size are not supported and may not be received correctly by Clearstream Banking.

After the file transfer process, the Xact File Transfer via Internet main window is again displayed.

## Verifying instruction files have been sent for processing

Instruction files sent to Clearstream Banking from the Instruction\_inbox for processing are copied in to the Instructions\_sent folder.



The screenshot shows the Xact File Transfer interface. At the top, there is a header with the Clearstream logo and 'DEUTSCHE BÖRSE GROUP' with a 'Logout' link. Below the header, there is a navigation bar with 'FileStore' and 'Instructions\_sent' folders, and a 'Refresh data' button. The main content area displays a table of files with columns for Name, Size [KB], and Date. The files listed are:

Name	Size [KB]	Date
<a href="#">T55257010.20170828.150406.TXT</a>	4	Aug 28 2017 15:04
<a href="#">T55251906.20170825.104231.ISO</a>	1	Aug 25 2017 10:42
<a href="#">T55251911.20170825.110135.ISO</a>	1	Aug 25 2017 11:01
<a href="#">T55251919.20170825.114237.ISO</a>	1	Aug 25 2017 11:42
<a href="#">T55251973.20170825.134442.ISO</a>	1	Aug 25 2017 13:44
<a href="#">T55251977.20170825.135253.ISO</a>	1	Aug 25 2017 13:52
<a href="#">T55251978.20170825.135304.ISO</a>	1	Aug 25 2017 13:53
<a href="#">T55252181.20170825.152244.ISO</a>	1	Aug 25 2017 15:22
<a href="#">T55252182.20170825.152255.ISO</a>	1	Aug 25 2017 15:22

At the bottom right of the interface, it says 'Last page refresh: 8/30/2017 4:37:18 PM'.

The instruction file is renamed to a Clearstream processing standard. You can verify that your file has been sent by using the standard text viewing applications associated with the internet browser.

- Double click on the relevant file.  
The file will open and the contents will be displayed. After viewing them:
- Close the file. (This will close your browser and end your Xact File Transfer via Internet session);  
or
- Click on **Back** on the browser to return to your Xact File Transfer via Internet session.

Instruction files remain in the Instructions\_sent folder for five days after which they are archived by Clearstream Banking.

## Technical feedback file

A technical feedback file is created by the Creation platform for each instruction file sent for processing, indicating whether the instructions are syntactically correct and acceptable for processing. This file is available for retrieval in the Reports folder.

The format of the technical feedback file will be the same as the sent instruction file.

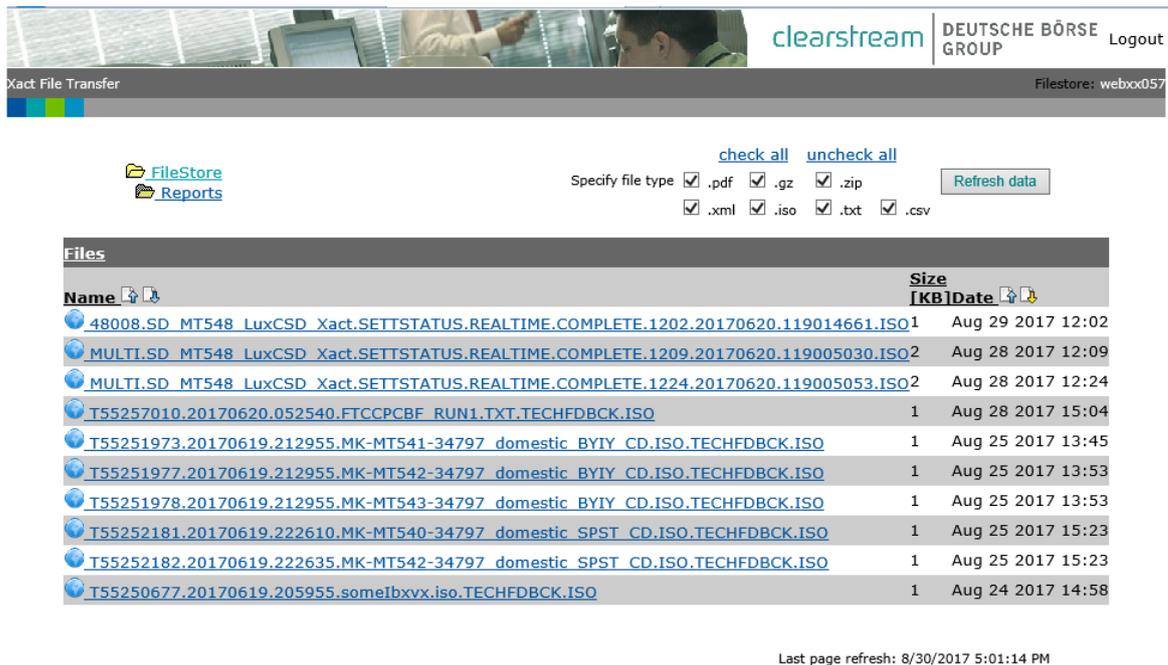
The structure of the technical feedback file is described in the publication "Xact File Transfer Data Interchange Specifications: ISO (Swift) and XML instruction and report file formats". This publication is available on the Clearstream Banking website.

## Reporting

Generated reports are placed in the Reports folder in date and time order and can be selected, viewed and saved locally. Reports remain in the Reports folder for five business days after initial generation. Such reports are then archived by Clearstream Banking and are available upon request.



- Click on the **Reports** folder to display the reports that have been created and are available for viewing or down loading.



Before attempting to view or download a report, you must specify the correct transfer mode for the specified report format by using **Specify report type**.

For viewing or downloading PDF reports or reporting files that have been compressed (.gz file extension),

- Select **Default**.

This sets the file transfer mode to Binary. PDF reports will not be able to be viewed or down loaded if the default setting is not selected.

For viewing .xml, .txt, or .iso files,

- Select **Special**.

Although not critical for viewing only, for downloading .xml, .txt, and .iso reports, the 'Special' option should be selected, as it will preserve the file trailer information, essential for some systems, if the file is to be downloaded and processed by client reconciliation systems.

## Viewing a report on-screen

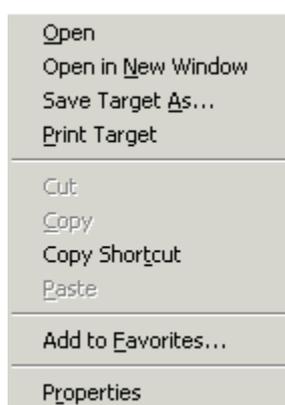
Select the report format for viewing or downloading.

- Click on the relevant file.
  - PDF files; Adobe Acrobat reader should be initiated and the selected PDF report displayed. PDF reports can then be saved directly to your Windows file directory by selecting save and saving the report file in the normal way using the Windows file system.
  - XML files will be displayed within the browser. XML files can also be saved directly to your Windows file directory by selecting save and saving the report file in the normal way using the Windows system process.
  - ISO files will be displayed within the browser. ISO reports can also be saved directly to a client's Windows file directory by selecting save and saving the report file in the usual Windows system process.
  - TXT files will be displayed. TXT reports can also be saved directly to a client's Windows file directory by selecting save and saving the report file in the usual Windows system process.

**Note:** If .pdf, .xml, .txt, or .iso report files are viewed, they are opened within the browser. Closing the report will also close your Xact File Transfer via Internet session.

If you wish to view reports and keep your Xact File Transfer via Internet session open, two easy options are available:

1. After viewing the report:
  - Click on the Backwards icon on the browser; or
  - Open the report from Xact File Transfer via Internet Reporting in a separate browser window:
2. Right click on the required report to be viewed on the Xact File Transfer via Internet Report folder

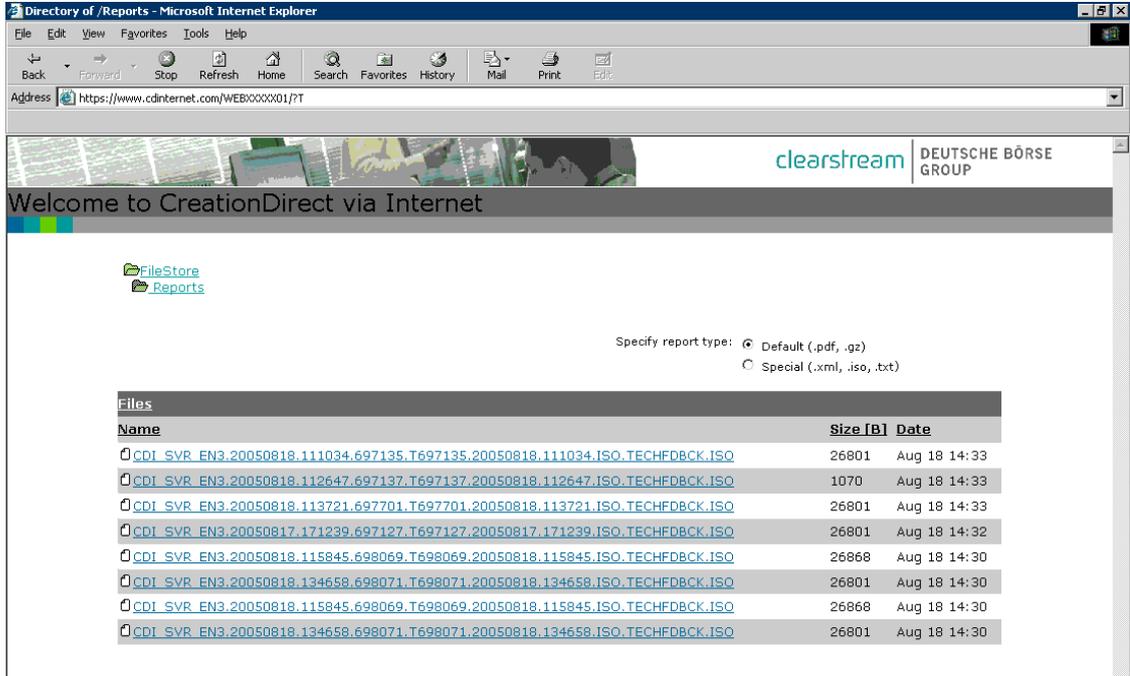


- Click on **Open in New Window**

Your report is displayed in a new browser window. This allows you to close your report and keep your Xact File Transfer via Internet session active in the initial browser window.

**Note:** GZ (compressed) files cannot be viewed on-screen. They must first be saved and then decompressed using a decompression application. E.g. WinZip, GNUZIP.

Technical feedback files are displayed in the browser and are in the same format as the original instruction file (either .iso or .gz.).

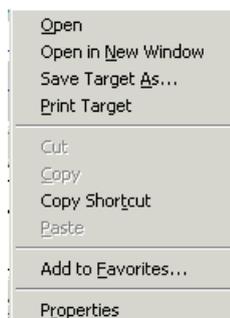


Please refer to the Data Input Screen for the naming convention.

## Downloading reports or saving reports locally

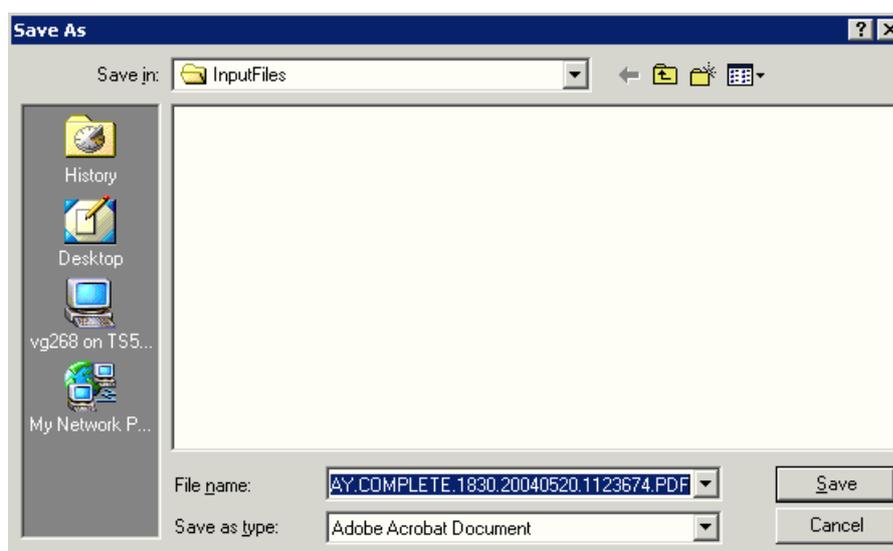
In order to download reports and save reports locally to your local Windows file system or local area network, a number of standard Windows desktop options are possible:

- Right click on the relevant file.



- Select Save Target As...

The Windows standard file system should appear allowing you to save the report to a Windows system file directory.



- Click on **Save** to save the report in the displayed Windows folder.
  - PDF files will be saved as Adobe Acrobat documents.
  - XML files will be saved as a XML document.
  - ISO files will be saved as a text document.

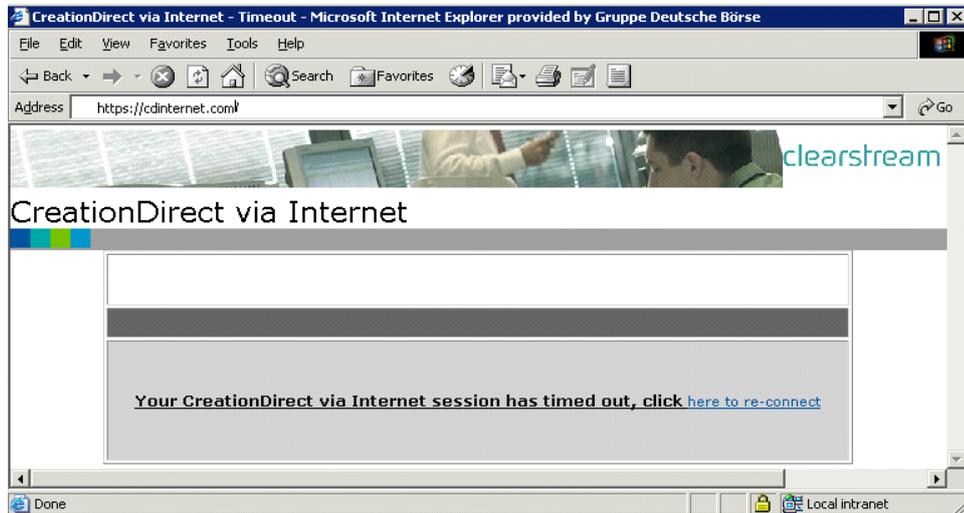
Report files can also be saved to your local Windows file directory or your local area network folders, directly after viewing them on-screen by selecting the save option as per a normal desktop application.

Clearstream Banking recommends that report files be made available locally to all users so that users can view them if the internet is not available.

## Miscellaneous information

### Session time-out

If you leave your Xact File Transfer via Internet session idle or unattended for five minutes, the session will time out. When you return to your last session, the window will change and the Xact File Transfer via Internet time-out window will be displayed.

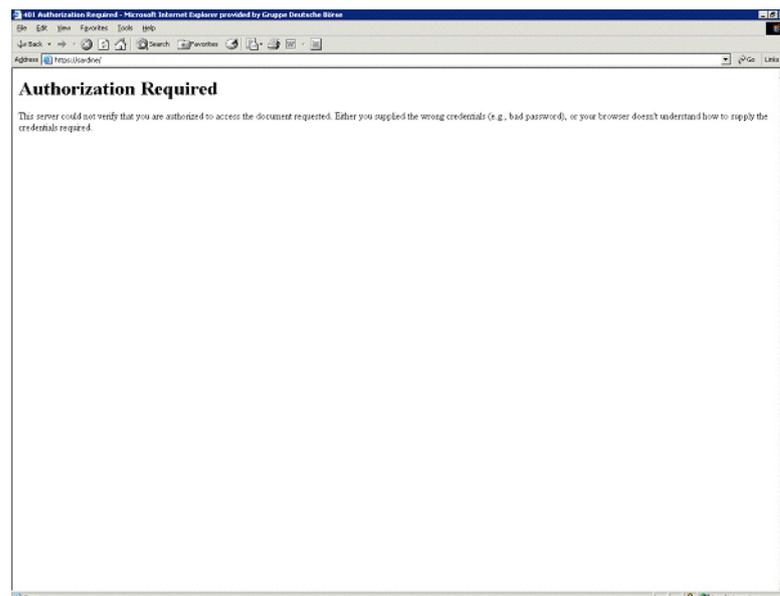


- Click on **here to re-connect**

This will return you to your Xact File Transfer via Internet session.

### Attempting to access Xact File Transfer via Internet with an invalid certificate

If you attempt to access the Xact File Transfer via Internet service with a certificate that was not specifically generated for the Xact File Transfer via Internet service, the following window will appear indicating you cannot access Xact File Transfer via Internet.



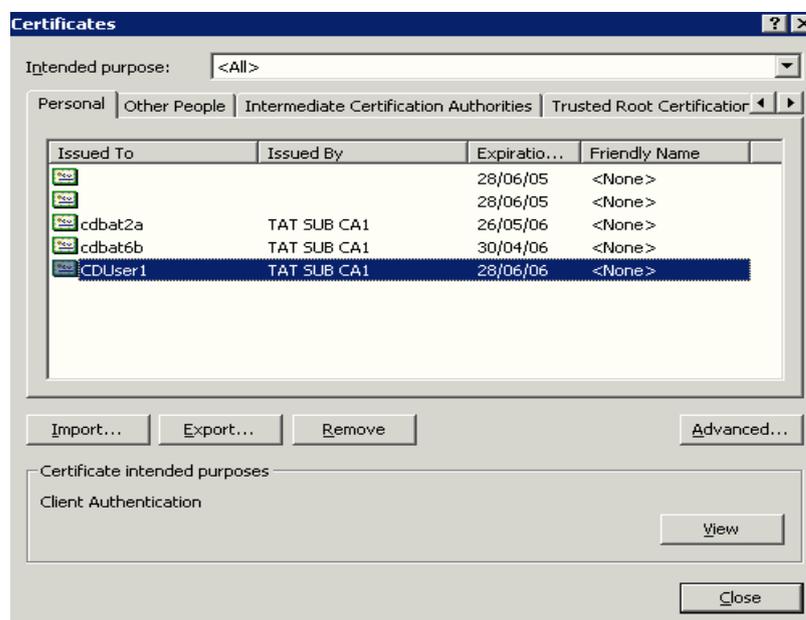
Please check the Certificate you are using to access Xact File Transfer via Internet.  
To view the details of your certificate please follow the proceeding steps.

- Start Internet Explorer and select **Tools - Internet Options**.

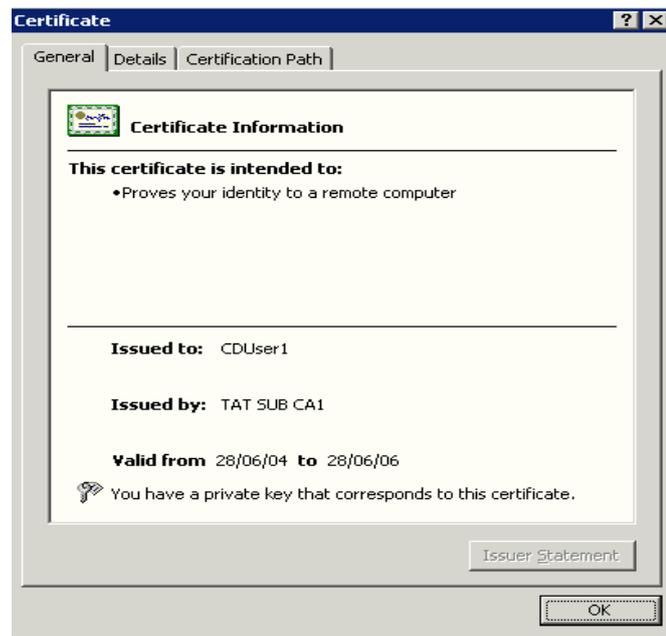


- Click on **Certificates** in the **Content** tab.

The following window will appear showing you the certificates installed in your browser.



- Select the relevant certificate and click on **View**.



The Certificate Information window will be displayed.

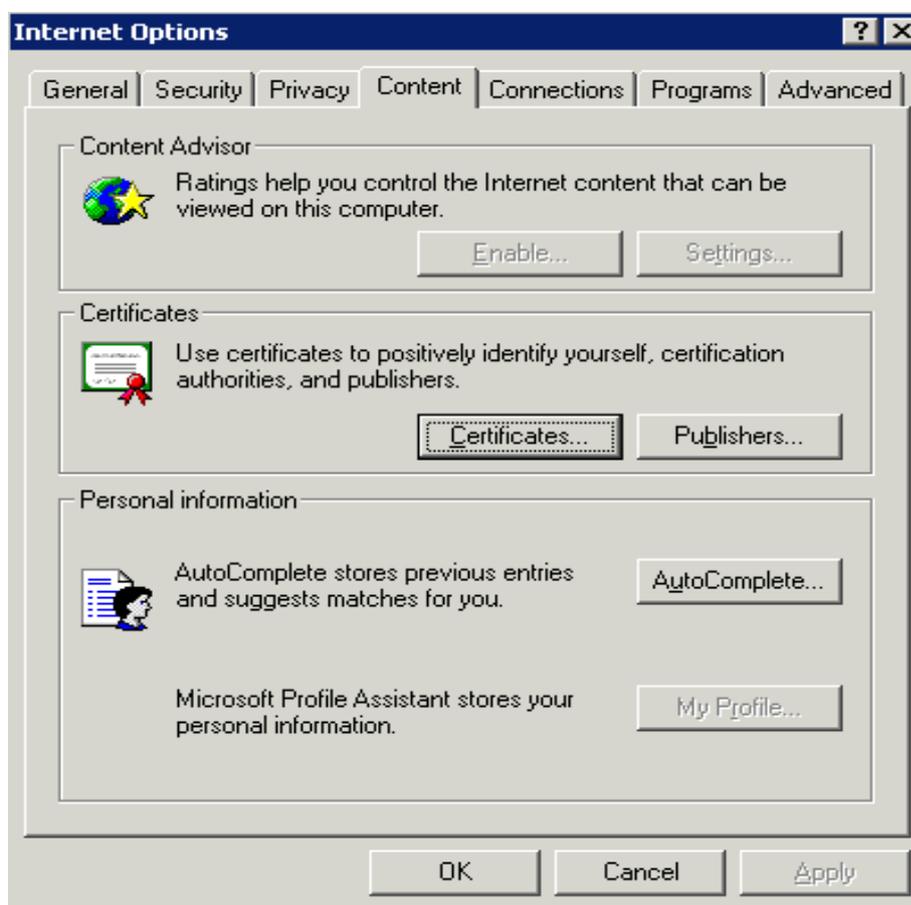
For a Xact File Transfer via Internet certificate the details are the following:

- **Issued to:** the user ID.
- **Issued by:** the issuing Certificate Authority. Xact File Transfer via Internet certificates are issued by Clearstream Banking.
- **Valid from:** the validity dates of the certificate. Xact File Transfer via Internet certificates are valid for two years from the issue date.

## Exporting a certificate for use by a Xact File Transfer via Internet user

The following steps explain how an OU Administrator who has imported a Xact File Transfer via Internet user's authentication certificate into his browser exports the certificate for use by a specific Xact File Transfer via Internet user:

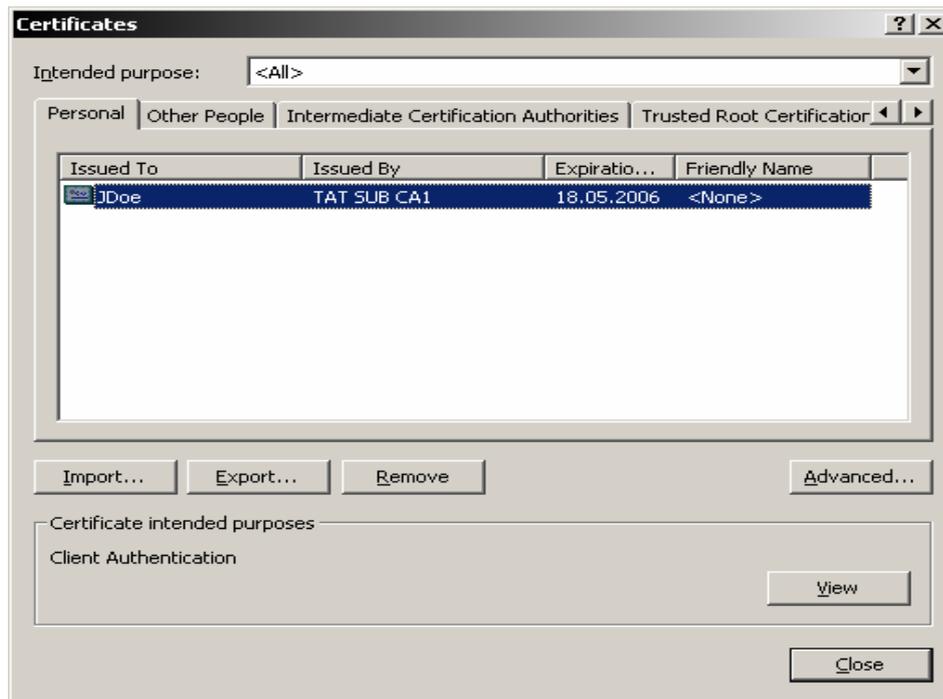
- Start Internet Explorer and select **Tools → Internet Options**.



- Click on the **Content** Tab.
- Click on the **Certificates** Button.

A screen is displayed showing all the certificates installed in your browser. Note that it may contain more than one certificate. Other certificates shown may include those you have requested for other Xact File Transfer via Internet users, and may be certificates for other applications.

Authentication certificates for Xact File Transfer via Internet users will have the user ID that was entered in the initial request for the certificate under the heading **Issued To**.



- Select a certificate that relates to one of your Xact File Transfer via Internet users.
- Click on **Export**.

The following screen will appear.



- Click on **Next**.

You will now be requested to export the private key and certificate.



- Select the option **Yes, export the private key**
- Click on **Next**.

You are now requested to specify the format of the exported certificate:



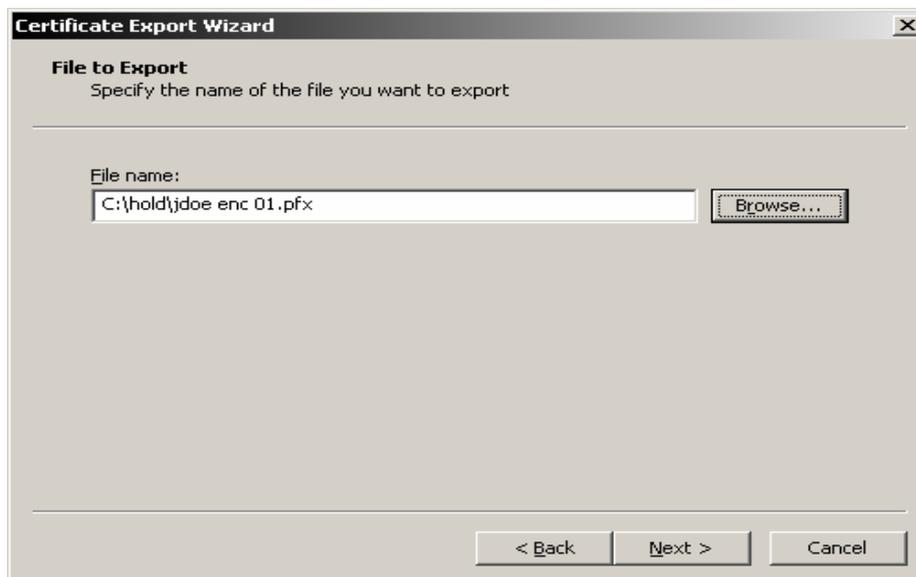
- Select **Include all certificates in the certification path if possible**, and **Enable strong protection**.
- Click on **Next**.

A window will now appear that allows you to set the password for the certificate being exported. This password will be required when the Xact File Transfer via Internet user imports this certificate into his Internet browser.



- Enter the password twice. This password can be any that you choose.
- Click on **Next**.

In the next window to be displayed, use the Browse button to select the folder for the certificate. It can be stored either locally or in a local area network. Ideally, the path selected should be accessible by the user who can now import the certificate into his browser.



- Click on **Browse** to select the location where you want to save the certificate. The file type should be ".pfx".
- Click on **Next**.
- Click on **Finish**.

The following window should appear.



This window is displayed if the export is successful.

- Click on **OK**.

The process of exporting the authentication certificate is now completed.

The steps described above must be repeated for each additional Xact File Transfer via Internet user.

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