IBM® Sterling Connect:Express® for Microsoft Windows

Installation and Utilities Guide

Version 3.1

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This edition applies to the 3.1 Version of IBM® Sterling Connect:Express® for Microsoft Windows and to all subsequent releases and modifications until otherwise indicated in new editions.

Before using this information and the product it supports, read the information in Notices, on page 50.

Table of Content

Product installation

Sterling Connect:Express for Microsoft Windows is supplied electronically or on a CD-ROM. All the files required by the file transfer monitor and its configuration are provided, as well as the product SDK and Documentations. The Activities Manager , Client Server and Httpn options are discussed in Chapter 2.

Important Note:
Before updating an existing environment, it is highly recommended to perform a backup of the initial environment.

Content of the CD-ROM

File transfer monitor files:

•	Tom.exe	File transfer monitor program
•	Anmdll.dll	Network interface
•	Apmdll.dll	PeSIT protocol (D and E versions)
•	Apmcli.dll	Private client/server protocol
•	apmetb3.dll	ETEBAC-3 protocol
•	apmnot.dll	Private notifications protocol
•	ctreestd.dll	C-TREE interface
•	EX25.dll	X.25 EICON interface
•	Tom_msg.dll	Windows NT applications journal messages of file transfer Service
•	tomnt.ASC	ASCII -> EBCDIC translation table
•	tomnt.EBC	EBCDIC -> ASCII translation table
•	tomnt.ini	Monitor parameters

Graphical interface files:

•	iu_tom.exe	Graphical interface program
•	iu_tomfr.dll	French resources dll
•	iu_tomus.dll	English resources dll
•	iu_tomsp.dll	Spanish resources dll
•	iu_tompt.dll	Portuguese resources dll
•	iu_tomge.dll	German resources dll
•	iu_tomdu.dll	Dutch resources dll
•	iu_tomit.dll	Italian resources dll

Application programming interface files:

•	ApiCxV3.dll	C API

Batch interface files:

•	Tomreq.exe	The batch utility

Utilities files:

- tom_log.exe   View messages program
- tom_logfr.dll   French resources dll
- tom_logus.dll   English resources dll
- tom_logsp.dll   Spanish resources dll
- tom_logpt.dll   Portuguese resources dll
- tom_logge.dll   German resources dll
- tom_logdu.dll   Dutch resources dll
- tom_logit.dll   Italian resources dll

- tom_notify.exe   Receive notifications utility
- tom_notify.ini   Receive notifications utility parameters
- tom_srv.exe   Install/uninstall the file transfer service
- tom_srvfr.dll   French resources dll
- tom_srvus.dll   English resources dll
- tom_srvsp.dll   Spanish resources dll
- tom_srvpt.dll   Portuguese resources dll
- tom_srvge.dll   German resources dll
- tom_srvdu.dll   Dutch resources dll
- tom_srvit.dll   Italian resources dll

- CeNotMon.exe   Receive notifications Service
- CeNotMon.ini   Receive notifications Service parameters
- CeNotMsg.exe   Windows applications journal messages of receive notifications Service

- CENotCfg.exe   Receive notifications service configuration program
- cenotcfg.dll   French resources dll
- cenotcfgus.dll   English resources dll
- cenotcfgsp.dll   Spanish resources dll
- cenotcfgpt.dll   Portuguese resources dll
- cenotcfgge.dll   German resources dll
- cenotcfgdu.dll   Dutch resources dll
- cenotcfgit.dll   Italian resources dll

- CENotSrv.exe   Install/Uninstall receive notifications Service

- Utltreq.exe   Batch file creation utility program
- utltreqfr.dll   French resources dll
- utltrequs.dll   English resources dll
- utltreqsp.dll   Spanish resources dll
- utltreqpt.dll   Portuguese resources dll
- utltreqge.dll   German resources dll
- utltreqdu.dll   Dutch resources dll
- utltreqit.dll   Italian resources dll

SDK files:

- ApiCxV3.dll   Dynamic link library
- ApiCxV3.lib   Import library
- Apicxvv3.txt   Types and declarations for use of the API with Visual Basic
- Apicxv3d.dll   C language declarations
- Apicxv3p.dll   C/C++ functions prototypes
- TOMREQ.C   C language sample

Help files:

In the Help directory.

Documentation files:

- UserGuide_FR.pdf   French user's guide
- UserGuide_EN.pdf   English user's guide
- ApiCx_FR.pdf   French programming guide
- ApiCx_EN.pdf   English programming guide
- PESITFields_FR.pdf   French PeSIT user fields guide
- PESITFields_EN.pdf   French PeSIT user fields guide
- CX_SSL_FR.pdf   French SSL configuration guide
- InstallUtil_FR.pdf   French Installation and Utilities Guide
- InstallUtil_EN.pdf   English Installation and Utilities Guide
- release_notes_FR.DOC   Release notes in French
- release_notes _EN.DOC   Release notes in English

Sterling Connect:Express for Microsoft Windows requires the following hardware and resources:
- A PC with INTEL processor
- A Windows operating system (Windows 2000, Windows XP, Windows Server, …)
- One of the following network interfaces:
    - TCP/IP compatible Windows Socket V1.1
    - X.25 Eicon and driver software
    - LU7.2 SNA SERVER
- 50 Mega-Bytes of free disk space
- 10 Mega-Bytes of memory for the basic monitor and additionally 256 KB per connection (client or transfer)

You need administrator privileges to install Sterling Connect:Express.

First Installation

When installing Sterling Connect:Express, proceed as follows:

- Place the CD_ROM in the drive or download the software and uncompress it in a temporary folder
- Run the program **install.exe**
- Enter the program group name (Default: Connect Express)
- Enter the installation directory (Default: c:\cexpress)
- Enter a name for the monitor (maximum 8 characters) (Default: CEXP1)
- Enter a free TCP listening port for incoming client connections (Default 7000)
- Enter a free TCP listening port for incoming PeSIT connections (Default 6000)

All the files used by the product will be copied in the directory that you indicated.
The program group is added to the 'Start/Programs' menu on the Windows task bar.

After you have installed the product, please refer to the user's guide: you will find a description of the product's architecture and how it operates.

Then carry out the following:

- Start the graphical interface from the 'Start/Programs/Connect:Express/Connect:Express Interface' menu.
- From the graphical interface, use the 'File/New' menu to add a monitor configuration with the following elements:
    - Name of the monitor chosen during the installation
    - Full path to tomnt.ini initialization file (located on the installation directory)
    - Network: TCP/IP, Host name: localhost, Port: port provided during the installation for client connections (Ex: 7000).
- Using the 'File/Configuration' menu, configure the monitor as follows:
    The default setting for the manager client is ADMIN and the default password is ADMIN.
    The Start, Service, Files, Notifications and Authorisation parameters should not be modified before the monitor is started for the first time.
    In 'Network Parameters', configure the networks that the monitor will be using for transfers and client connections.

- Close the graphical interface and then Start the monitor from the 'Start/Programs/Connect:Express/Transfer Monitor' menu; the monitor window should appear on the desk-top.

If the monitor window does not appear:
- Use the View messages utility program and check the messages.
- Using the on-line help for this utility, find out why the monitor is not properly configured, make the necessary corrections, and restart.

When the monitor's window appears on the desktop:
- Restart the graphical interface and use the 'File/Management' menu to manage the monitor, using ADMIN for client name, and ADMIN as the password.

Upgrade

To upgrade Sterling Connect:Express, proceed as follows:

- **Back up the initial environment.**

- Stop the monitor.
- Uninstall the Connect:Express Windows service if necessary (See Note1 below).
- Place the CD_ROM in the drive or download the software and uncompress it in a temporary folder
- Run the program **install.exe**.
- Indicate the group and directory of the upgraded monitor.
- Answer « **No** » when asked for Tomnt.ini, Tom_Notify.ini and CeNotMon.ini initialization files replacement.
- Indicate the name of the monitor (See Note2 below).
- After installation, restart the monitor.

Note1: if you are upgrading from a version less equal to 304 to a version greater equal 305, and if Sterling Connect:Express is installed as a Windows service, the service name has changed. It is thus necessary, before updating, to uninstall the service by using the utility tom_srv.exe of the initial version, and to install the service again after the update.

Note2: if you are upgrading from a version less equal to 304 to a version greater equal 305, you can choose a different name for the monitor, during installation, than the name which had been chosen with the graphical interface in the initial version.
If the two names are different, you can change the name of the monitor displayed in the graphical interface later by deleting, in this interface, the old definition and creating a new one with the new name.

Installation of Several Monitors on the Same Machine

Since version V305, it is possible to install and run several monitors on the same machine.

Monitors are characterized by:

- The installation directory.
- The monitor name.
- The Windows service name.
- The network listening ports.
- The start-program menus.

These elements must be different from one monitor to the other.

The Windows service name of a monitor is made up of the string « Connect:Express », followed by the monitor name chosen at installation.

Connect:Express CEXP1   PeSIT transfer monitor   Started   Manual   Local System
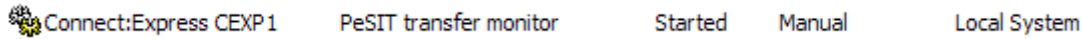
The windows titles of the programs of each monitor show the name of the monitor:

Connect:Express - File transfer Monitor CEXP1

V31.001
MONITOR INITIALISATION IN PROGRESS...
THE MONITOR IS STARTED
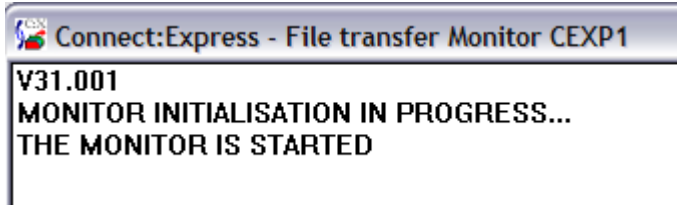
Start-program sub-menus are grouped by monitor name:

CONNECT Express   CEXP1   Utilities
                                                   CEXP2   CX Graphical interface
                                                                  CX Monitor
                                                                  Help on CX
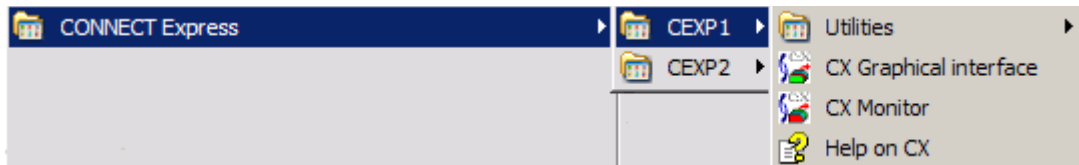
Uninstalling a Monitor

To uninstall a monitor, proceed as follows:

- If Sterling Connect:Express is installed as Windows service, use tom_srv.exe to uninstall the service.
- In the start-program sub-menus of Windows, delete from the group of programs (CONNECT Express), the sub-menu that have the name of the monitor (Right click on the monitor name to delete it).
- Run regedit.exe and delete the name of the monitor from the list of monitors:
  My Computer\HKEY_LOCAL_MACHINE\SOFTWARE\Sterling Commerce\CX monitors
- Delete or rename the Sterling Connect:Express installation directory.

The standard 32-bit Windows client for Sterling Connect:Express is made up of the following files:

- TOMREQ.exe
- ApiCxV3.dll
- Anmdll.dll
- tomnt.ini

These files must be placed in the C X installation directory.
The **tomnt.ini** file is used solely to check the authorisation number (old format only), the use of the TCP/IP and CLIENT timeout.
This information is stored in this file under the heading MONITOR as follows:
[MONITOR]
TCP/IP NETWORK=x
CLIENT TIMER=xxx

For updates, only the TOMREQ.exe ApiCxV3.dll and Anmdll.dll are required.

Activity Manager, Client Server and Httpn Options

Thre options are shipped with Sterling Connect:Express for Microsoft Windows.

Important Note:
Before updating an existing environment, it is highly recommended to perform a backup of the initial environment.

The Options of Sterling Connect:Express for Microsoft Windows

Activity Manager.

The Activity manager option is a graphical interface installed on a 32-bit Windows system. It enables the management and use of remote Sterling Connect:Express monitors. The remote monitors are accessed via an API using TCP/IP connections or named pipes.
The access to the monitors is controlled by a user's identification. Each user is called a client and has a profile describing what kind of actions he can do remotely.
Depending on his rights, a client can:
-    Manage the monitor (Partners, Files and Clients directories and monitor tables)
-    Manage his own transfers or the transfers of every client (Transfer requests, activity of transfers, consultation of messages, journal and notifications)
-    View the monitor settings (start-up parameters, network parameters …)

Client Server.

The Client server option is a graphical interface installed on a 32-bit Windows system. It enables to submit transfer requests to a single remote Sterling Connect:Express monitor. The remote monitor is accessed via an API using TCP/IP connections or named pipes.
The access to the remote monitor is controlled by a user's identification. Each user is called a client.
A client can:
-    Manage his own transfers (Transfer requests, activity of transfers, journal and notification consultation)

Httpn.

HTTP notifications generated by the monitor are sent to the remote SI by a specific executable tom_httpn.exe. The monitor, tom_httpn and SI can be stopped or restarted independently, without loss of notifications. Refer to the "*Adapter for Sterling B2B Integrator*" manual , Chapter 3, for implementing Http notifications of Sterling Connect:Express for Microsoft Windows.

Note: With Sterling Connect:Express Microsoft Windows, the http notification can be used together with the TCP notification described in *Notifications System on page* 26.

The **Activity Manager**, **Client Server** and **Httpn** options of Sterling Connect:Express for Microsoft Windows are shipped on the same CD-ROM as the monitor. They are located in the **Activity Manager** , **Client Server** and **httpn** sub-directories respectively. Each directory contains all the files required by the option and his configuration.

Activity Manager Option

Graphical interface files:
- **iu_tom.exe**: graphical interface program
- **iu_tomfr.dll**: French resources dll
- **iu_tomus.dll**: English resources dll
- **iu_tomsp.dll**: Spanish resources dll
- **iu_tompt.dll**: Portuguese resources dll
- **iu_tomge.dll**: German resources dll
- **iu_tomdu.dll**: Dutch resources dll
- **iu_tomit.dll**: Italian resources dll
- **iutom.ini**: API's option parameters

Application programming interface files:
- **ApiCxV3.dll**: the Sterling Connect:Express API

Utilities files:
- **Iu_api.exe**: program to update the API's parameters for the option
- **iu_apifr.dll**: French resources dll
- **iu_apius.dll**: English resources dll
- **iu_apisp.dll**: Spanish resources dll
- **iu_apipt.dll**: Portuguese resources dll
- **iu_apige.dll**: German resources dll
- **iu_apidu.dll**: Dutch resources dll
- **iu_apiit.dll**: Italian resources dll

Client Server Option

Graphical interface files:
- **iu_tom.exe**: graphical interface program
- **iu_tomfr.dll**: French resources dll
- **iu_tomus.dll**: English resources dll
- **iu_tomsp.dll**: Spanish resources dll
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- **iu_apige.dll**: German resources dll
- **iu_apidu.dll**: Dutch resources dll
- **iu_apiit.dll**: Italian resources dll

Httpn Option

- **tom_httpn.exe** : http notifications server
- **tom_httpn.ini** : initialization file
- **httpn_version.txt** : Current version
- **notformat_template.xml** : Notification format configuration file

Utilities files:
- **httpn_cmd.exe** : commands to server
- **httpn _config.exe** : configuration of the server
- **httpn _service.exe** : installtion of a Windows service
- **httpn _status.exe** : display server status
- **httpn_configfr.dll** : French resources dll
- **httpn_configus.dll** : English resources dll
- **httpn_servicefr.dll** : French resources dll
- **httpn_serviceus.dll** : English resources dll
- **httpn_statusfr.dll :** French resources dll
- **httpn_statusus.dll** : English resources dll

Installation files
- **setup.exe**
- ISSetup.dll
- setup.dll
- data1.cab
- data2.cab
- 0x0409.ini
- Setup.ini
- Data1.hdr
- Setup.inx

The **Activity manager** , **Client Server and Httpn** options of Sterling Connect:Express for Microsoft Windows require the following hardware and resources:
- A PC with INTEL processor
- A 32-bit Windows operating system (Windows XP, Windows Server, …)
- One of the following network interfaces:
  - ♦ TCP/IP compatible Windows Socket V1.1
  - ♦ Windows named pipes
- 4 Mega-Bytes of free disk space

Activity Manager and Client Server

First Installation

When installing an **option** of Sterling Connect:Express for Microsoft Windows you should proceed as follows:

- Place the CD_ROM in the drive or download the software and uncompress it in a temporary folder
- Change to the Activity manager or Client Server directory
- Run the program **install.exe**.
- Enter the installation directory

All the files used by the product will be copied into the indicated directory.
A program group is added to the 'Start/Programs' menu of the Windows task bar.

Upgrade

When updating an **option** of Sterling Connect:Express for Microsoft Windows you should proceed as follows:

- **Back up the initial environment.**

- Place the CD_ROM in the drive or download the software and uncompress it in a temporary folder
- Change to the Activity manager or Client Server directory
- Run the program **install.exe**.
- Enter the installation directory

Once the product is installed, please consult the user's guide in order to understand the product's architecture and how it operates, then carry out the following:

- Start the graphical interface from the "Start/Programs/CX Activity manager/CX Interface" or the "Start/Programs/CX Client Server/CX Interface" menu.
- From the graphical interface, use the 'File/New' menu to add a monitor specification by allocating a local name, stating the path used to access the initialization file ('IUTOM.ini' file located in the installation directory), and indicating the network elements used for client connections.
- If the Client Server option is used, the client's characteristics must have been previously defined in the monitor. It can be done by ADMIN with the graphical interface on the system running the monitor or by ADMIN on a remote system using Activity manager.

Installing the HTTP Notification

The HTTP notification component is shipped with Sterling Connect:Express for Microfsoft Windows. It requires an additional installation on a beforehand installed monitor.

Perform the following operations:

- Stop Sterling Connect:Express
- Upgrade the version of Sterling Connect:Express if necessary (See Sterling Connect:Express documentation)
- Place the CD_ROM in the drive or download the software and uncompress it in a temporary folder
- Change to the httpn directory
- Execute setup.exe. Indicate during the installation the root directory of the monitor.

Uninstalling the HTTP Notification

Perform the following operations:

- Select « Start / Settings / Control Panel / Add or Remove Programs » from the Microsoft Windows task bar.
- Select « Sterling Connect:Express HTTP Notifications » in the list of installed programs, the click « Remove ».

Iu_api Utility

The **Iu_api.exe** utility is used to update the parameters in the initialization file **iutom.ini**.

These parameters, which can be updated in the Iu_api's window, are:
- TCP/IP use enabled /disabled
- Delay before closing the connection between the client and the monitor if there is no traffic.

The Batch Interface Utility

Two batch interface utilities called tomreq and tomreqwc, are provided to submit transfer requests for one or several files, over than 100 files with tomreqwc.

Overview

The **Tomreq.exe** utility is used to submit transfers from 32-bit Windows workstations to Sterling Connect:Express monitors running on the same computer or on a remote computer.
This utility uses the Sterling Connect:Express API which is described in the ***Sterling Connect:Express for Microsoft Windows Programming Guide***.

The method of installing or updating this utility is described in section "Installing or updating a standard exported client".

Implementation

The Utility can be started from:
- The Windows desktop if installed as an icon
- The 'Run' command on the 'Start' bar or from the 'File' menu.
- A Windows application
- A command file

The parameters required for it to run are shown on the command line using the syntax shown below:

/V:vvvv

where **V** represents the code letter for the parameter and '**VVVV**' is the value of this parameter.

Two types of parameters are shown on the command line, one is compulsory, the others optional.

The compulsory parameter is:
/F - the symbolic file name

The optional parameters are:
/P - the symbolic partner name
/S - the direction of the transfer
/T – the type of request
/D - the physical name of the file about to be transferred.
/C - the symbolic client name
/M – the client password
/K – the type of network
/I – the IP address of the monitor
/H – the monitor's host name
/O – the monitor port number
/N – the name of the Named Pipe for the monitor
/G – the file name for the API parameters
/E – the ETEBAC-3 parameters card (ETEBAC-3 only)
/B – the file label (PI 37 of the PeSIT protocol) in PeSIT only
/A – local name for a dynamic local identification of the partner
/W – local password for a dynamic local identification of the partner
/Y – client name to notify at transfer end
/1 – ad'hoc user name for remote file access control
/2 – ad'hoc user password for remote file access control
/3 – ad'hoc origin physical name
/4 – ad'hoc remote physical name
/5 – origin - extended request – pi3
/6 – destination - extended request – pi4
/7 – sender - extended request – pi61
/8 – receiver - extended request – pi62
/R – pi99 offset
/V – pi99 value
/L – type of http notification

These parameters can be entered in upper or lower case, in any order.

Symbolic file name (/F)
This is the symbolic name of the file about to be transferred. It must be defined in the Sterling Connect:Express file directory and is compulsory.

Symbolic name of partner (/P)
This is the symbolic name of the partner with whom the file is to be transferred. It must be defined in the Sterling Connect:Express partners directory
The default setting is that the sending or receiving partner defined in the file is used as the transfer direction

Direction of transfer (/S)
This is the direction of the transfer. It may be 'T' for Transmit or 'R' for Receive.
The default setting is the direction stated in the definition of the file being used.

Type of request (T)
This is the type of transfer request and may be 'N' for Normal, 'I' ['D'] for Inquiry [Demande in French], 'H' ['A'] for Hold [Attente in French] or M for Message.
The default setting is type 'N' for Transmission and type 'I' for Receiving.

Physical file name (/D)
This is the physical name of the file being sent or received by the Sterling Connect:Express transfer monitor. This name must specify a file on a volume that is directly accessible by the monitor.
The default setting is the physical name stated in the definition of the file being used.

Symbolic name of client (/C)
This is the symbolic name of the client who is submitting the request. It must be defined in the Sterling Connect:Express client directory and it must possess the access rights required for the request it is making.
The default setting is the symbolic 'CLIENT' name.

Client password (/M)
This is the password for the client who is submitting the request. It must be stated in the client definition in the Sterling Connect:Express client directory
The default password is 'CLIENT'.

Type of network (/K)
This is the network type that the API must use to communicate with Sterling Connect:Express. It may be 'N' for Named Pipe or 'I' for TCP/IP.
The default is that Named Pipe is used.

The monitor's IP address (/I)
This is the monitor's IP address for Sterling Connect:Express transfers, in 'aaa.bbb.ccc.ddd' format, to which the transfer request is to be submitted.
If both the address and the host name are indicated, the host name takes priority.

Monitor's host name (/H)
This is the host name for the Sterling Connect:Express transfer monitor to which the transfer request is to be submitted.
If both the address and the host name are indicated, the host name takes priority.

The port number of the monitor (/O)
This is the number of the CLIENT port for the Sterling Connect:Express transfer monitor to which the transfer request is to be submitted.

Name of Named Pipe for monitor (/N)
This is the name of the Named Pipe for the Sterling Connect:Express transfer monitor to which the transfer request is to be submitted.
The default name is '\\.\PIPE\IUCEV2_PIPE'.

File name for the API parameters (/G)
This is the name of the 'INI' file containing the parameters required to run the API for Sterling Connect:Express.
The default file used is 'TOMNIT.ini'.

ETEBAC-3 parameter card (/E)
This is the 80-character card containing the ETEBAC-3 transfer parameters.
The values for this parameter must be enclosed by double quotation marks, as follows:
/E:″A 0080   FICETB3″
The utility fills up the card with spaces if all 80 characters are not used.
The default is that the card stated in the graphical interface is used.

File label (/B)
This is a field of 80 characters used to state the value for the protocol field (PI) 37 to send to the partner (only for transmissions made in PeSIT). Use keyword "NONE" to disable sending this parameter.
The default is that the physical file name is used.

Local name (/A)
This is a field of 8 characters used to state the local name of a partner who is dynamically identified.

Local password (/W)
This is a field of 8 characters used to state the local password of a partner who is dynamically identified.

Client name (/Y)
This is a field of 8 characters used to state the client name that will be notified at transfer end.

Ad'hoc user name for remote file access control (/1)
Field of 8 characters maximum used to state a user name for remote file access control.

Ad'hoc user password for remote file access control (/2)
Field of 8 characters maximum used to state a user password for remote file access control.

Ad'hoc origin physical name (/3)
Field of 44 characters maximum used to state the origin physical name proposed to the remote partner.

Ad'hoc remote physical name (/4)
Field of 44 characters maximum indicating the remote physical name stated to the remote partner.

Origin - Extended request (/5)
Field of 8 characters maximum used to state the PeSIT Pi3 value.

Destination - Extended request (/6)
Field of 8 characters maximum used to state the PeSIT Pi4 value.

Sender - Extended request (/7)
Field of 24 characters maximum used to state the PeSIT Pi61 value.

Receiver - Extended request (/8)
Field of 24 characters maximum used to state the PeSIT Pi62 value.

Pi99 offset(/R)
Field of 3 numeric characters maximum indicating an offset inside the pi99 of the field defined by the /V parameter.

Pi99 value (/V)
Field of 254 characters maximum, defining the pi99 value (Enclose this value with double quotes if the value contains spaces). For a request of type Message, the /V parameter corresponds to the content of the Pi91 that will be sent in the PeSIT message fpdu.

Type of http notification (/L)
1 numeric character (values 0 to 7) defining the type of the http notification that will be sent. 1 indicates a notification at the beginning of the transfer, 2 at the successful end of the transfer and 4 in case of error. It is possible to combine these values (For example 6=4+2 means a notification at successful end of transfer or in case of error).

Note: Use tomreq /? To get command help

View From Client Workstation

The utility runs within a non-graphical window and, while it is running, it displays messages stating the various stages it has reached.
These messages indicate, in particular, the number(s) of the transfer request(s) accepted by the Sterling Connect:Express monitor.
The full list of messages is given in the appendix.

When it has finished its run, the utility provides a return code indicating the success or failure of a request submission. This code can be interpreted by the 'IFERRORLEVEL…' instruction of a BATCH command file.
The full list of these return codes is given in the appendix.
The TCP/IP, SRC or TRC error codes are listed in the "*Sterling Connect:Express for Microsoft Windows User's Guide*".
The APIRC error codes are described in the "*Sterling Connect:Express for Microsoft Windows Programming Guide*".

View From Sterling Connect:Express Monitor

Clients who connect must be defined in the Sterling Connect:Express clients directory and must be authorised to submit transfers.
The client definition in the Sterling Connect:Express clients directory is used to implement a certain number of controls, based on the following:
1   The 'Operational' or 'Non-operational' status of this client
2   The IP address if a check of the caller's address is required in TCP/IP
3   The client's transfer authorisation rights

Each client connection is listed in the monitor messages with an identifier in 'CYYYYQQQNNNN' format.
4   The letter C is used to differentiate the request identifier from the client connection identifier
5   YYYY is the year
6   QQQ is the day of the year
7   NNNN is the number of the order

If you want to submit one single request for multiple transfers, you can use the Tomreq.exe utility and provide a pattern with wild cards in the physical name parameter (for example all files matching « *.txt »). The monitor builds the list of files from the pattern and creates one transfer request per selected file: all is performed internally and the list of selected files is limited to a maximum of 100 files.

The **TomreqWC.exe** utility is similar to the Tomreq.exe utility and accepts the same parameters. Use it if you need to transfer more than 100 files. TomreqWC.exe reads the directory and builds himself the list of the files that match the pattern. Then it submits successively one transfer request per selected file.

Important Note: Tomreq.exe can execute on a remote machine with no access to the files to transfer, because only the monitor processes the files: on the contrary, both TomreqWC and the monitor must have direct access to the directories that contain the files to send (TomreqWc in order to build the list, the monitor in order to send them). More often TomreqWC must execute on the same machine as the monitor.

The **Utltreq.exe** program is a graphical application allowing to create a BATCH command file (.bat) to issue a transfer request using the Sterling Connect:Express BATCH utility **Tomreq.exe**.
The information is provided using three different tabs:
- General
- Client/Server
- Transfer

General Tab

This information is:
- The path to access the Sterling Connect:Express BATCH utility program **Tomreq.exe**
- The path to access the Sterling Connect:Express initialization file **tomnt.ini**
- The complete BATCH command file name to create.

Client/Server Tab

This information is provided to the BATCH utility to establish the Client/Server dialog with the Sterling Connect:Express file transfer monitor:

Client
> **Name**: This is the client name used to identify the the owner of the file transfer request that will be issued. *The name 'CLIENT' is used by default.*
> **Password**: This is the client password. *The password 'CLIENT' is used by default.*

Monitor
> **Named Pipe network**: States that the Named Pipe network will be used to establish the Client/Server dialog.
> **Name**: This is the Named Pipe name created by the Sterling Connect:Express monitor to receive client connections. *This name is mandatory.*
> **TCP/IP network**: States that the TCP/IP network will be used to establish the Client/Server dialog.
> **Host name**: This is the host name of the system where running the Sterling Connect:Express monitor.
> **Address**: This is the IP address of the system where running the Sterling Connect:Express monitor. *One of both Host name or IP address is mandatory.*
> **Port**: This is the port number on witch the Sterling Connect:Express monitor is listening to receive client connections.
> *It is mandatory.*

Transfer Tab

This is the transfer information:

File: symbolic file name to transfer. *Mandatory.*
Direction: transfer direction.
Default is the direction defined in the File definition.
Partner: symbolic partner name.
Default is the partner defined in the File definition.
Local name: Symbolic local name used when the local identification is defined in the partner definition as Dynamic.
No default value.
Local password: Local password used when the local identification is defined in the partner definition as Dynamic.
No default value.
Physical name: Physical file name to transfer.
Default is the physical file name defined in the File definition.
Label: This is the value of the PI=37 at the file selection stage of the PeSIT protocol.Use keyword "NONE" to disable sending this parameter.
Default is the physical file name.
Card Description
    Position 1: contains 'A' for an outgoing transfer [stands for Aller = Go in French] or 'R' for a received transfer.
    Positions 2 to 4: not used, should contain spaces
    Positions 5 to 8: Length of article:
    Positions 9 to 80: free-form
By default, **Sterling Connect:Express** presents a card with the free-form section initialized for transfers with a **Sterling Connect:Express** server, as follows:
    Positions 13 to 20: Symbolic name of the file
    Positions 21 to 28: Local symbolic name of partner
    Positions 29 to 35: Partner's local password
    Position 47: 'I' for received transfer in Inquiry mode.
Pi 99 offset and value: These fields define the content of the pi 99 parameter for file transmission or file reception. See ***Exchanging pi 37 and pi 99 parameters with PeSIT partners***.

Type: Indicates the type of request. It may be Normal, Inquiry, or Hold.
    In *Transmission*, the request is set to Normal for an outgoing call or Hold for an incoming call.
    In *Reception*, it can be Normal or Inquiry depending on the parameters set for the remote site (Request on Hold or not)
**Notification**: client name to be notified at the transfer end.
Not used by default

Notifications System

The notification system is used to send transfer information to Sterling Connect:Express clients.

The notifications system of Sterling Connect:Express allows the monitor, at the end of transfer (successful or not) to send a message received by one of the utilities enabling to alert the user, to generate an acknowledgement file and to start a BATCH process on the client station.
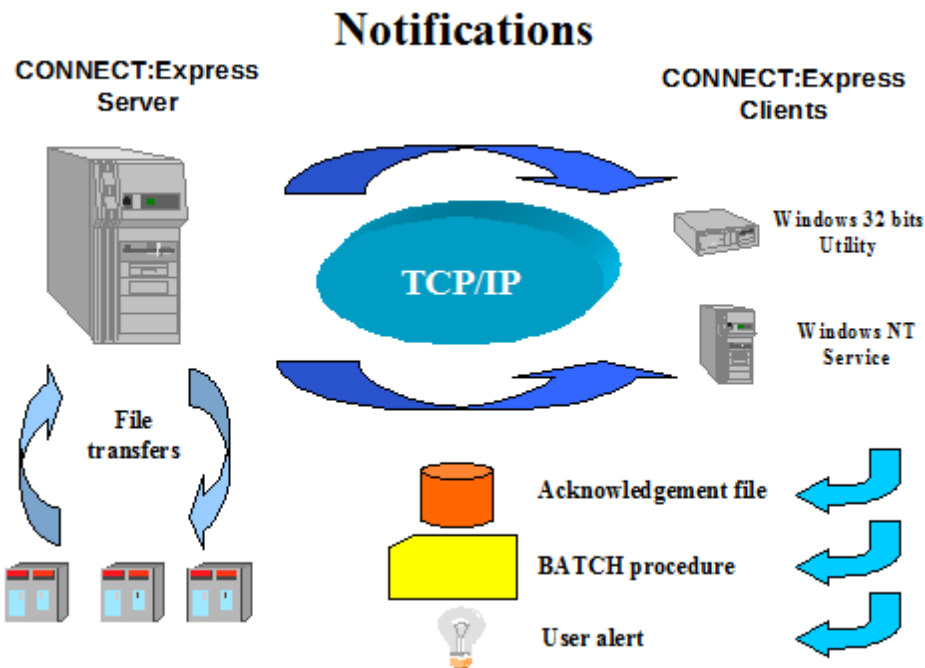
Picture 1

To send transfer notifications from the transfer monitor, three kinds of parameters, at different level, may be specified:

- Global level, for all transfers, in the monitor notifications parameters
- File level, each time a file definition is used to transfer a file, in the file directory
- On demand, when a transfer request is issued by a client.

At each level of notification, just indicate the client name, enabling the monitor to find the notification receiver's network information in the Client directory.

On the client station side, the utility parameters allow to:

- Receive the notification from a specified network
- Send a user alert (popup, flashing window…)
- Create an acknowledgement file,
- Start a batch procedure.

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Two components are delivered to receive the transfer notifications on the client station:
- A Windows utility
- A Windows service

The functionalities are equivalent for both.

Receive Notifications Utility

Presentation

Depending on the automatic start-up parameter, when started the utility is either in a **stopped** or **started** condition.

These two conditions signify the following:
- **Stopped:** The receive notifications facility is inactive
- **Started:** The receive notifications facility is active

The status is indicated in the window title line

The utility graphical window shows:
- The list of notifications received since it was started, provided the parameters state that they should be displayed. A double click on a request number displays the corresponding detailed information of the journal.
- A tools bar which is used to give direct access to the various menu options
- A status bar indicating the functions of the various buttons and menu options, when the mouse pointer is located on them
- A menu giving the following options:
- Files
- View
- ? (Help)

The 'Files' menu gives access to the parameters, and can be used to 'Start' or 'Stop' receipt of notifications, and to exit from the utility.

Parameters

The parameters for the utility are stored in the **tom_notify.ini** file, located in the execution directory for the utility.

They consist of the following:

<u>**General**</u>
Automatic start-up
This indicates whether or not the utility should start automatically (ready to receive notifications) as soon as it is started.
Log on screen
This indicates whether or not received notifications should be displayed in the utility window.

<u>**Errors**</u>
Popup window message
This indicates whether the utility should open a popup window to alert the user when an internal error is retrieved. The popup window stops the execution until the user reply is entered.
Log in file
This indicates whether the utility logs into a file the internal errors retrieved. The log file is named **Tom_notify.log** in the utilities directory.

<u>**Network**</u>
The TCP/IP network can be used on all 32-bit Windows platforms while the Named Pipe network can be used only on Windows NT platforms.
TCP/IP
Port number
This indicates the number of the port for receiving notifications. It must be identical to the port stated in the corresponding client definition at monitor level.
Named Pipe
Name of Pipe:
Indicates the name of the (named) pipe for receiving notifications. It must correspond with the name of the pipe stated in the corresponding client definition at monitor level.

<u>**PROCESSING in Successful transfer notifications received**</u>
These different parameters indicate the processes to be carried out when the utility receives correctly ended transfer notifications.

<u>**PROCESSING in Unsuccessful transfers notifications received**</u>
These different parameters indicate the processes to be carried out when the utility receives transfer notifications containing an error or that have not ended correctly.

Note about the use of Named Pipes
If Named Pipes are used for the communication, the remote monitors must be configured for a Named Pipe client access.
Furthermore, for these monitors, the Named Pipe name \\.\PIPE\pipe-name doesn't work any more when the monitor and the application receiving the notifications are located on different machines. It must now be indicated as \\server-name\PIPE\pipe-name

Examples:

Monitor and application receiving the notifications on different machines:
In the configuration of the monitor on server1:
- Named Pipe network: Name = \\server1\PIPE\iucev2_pipe
- Client: Named Pipe name for the notifications = \\server2\PIPE\notify_pipe
In the configuration of the notification application on server2:
- Parameters: Named Pipe name = \\.\PIPE\notify_pipe

Monitor and application receiving the notifications on the same machine:
In the configuration of the monitor on server1:
-     Named Pipe network: Name = \\server1\PIPE\iucev2_pipe or \\.\PIPE\iucev2_pipe equally
-     Client: Named Pipe name for the notifications = \\server2\PIPE\notify_pipe
In the configuration of the notification application on server1:
-     Parameters: Named Pipe name = \\.\PIPE\notify_pipe

Monitor connection

This feature permits, when the Activity Manager option is installed on the same machine as tom_notify, to connect to remote monitors, for management purpose. Right-clicking on a given notification request number, opens a management window on the corresponding monitor, giving therefore a full control over the transfers.

The **Local panel** indicates the ini file for the local GUI to start for notifications coming from a local monitor.

The **Remote panel** indicates the ini file for the Activity manager GUI to start for notifications coming from remote monitors.

The **Default user identification** records the default client identification which is systematically sent to the remote monitor. If this default identification is not valid for a given monitor, the user is prompted for entering a specific identification.

By default, these features are disabled.

Alert

Indicates whether or not a user alert should be transmitted.

The possible user alerts are:

-     <u>Message</u>: 'Pop-up' information window displayed
-     <u>Flash window</u>: the utility icon blinks in the Windows task bar
-     <u>Sound</u>: a tone is emitted. The | **Browse** | button can be used to search for the name of the file containing this sound (.WAV)

Acknowledgement file

Indicates whether or not an acknowledgement file should be created.

The name of the file to be generated should be stated.

A description of the acknowledgement file and some sample names are given in the appendix.

If the file to be generated already exists an error is detected and a message displayed.

The creation of the file is also specified:

-     New: the file must not already exist. If it exists, an error occurs
-     Replace: if the file already exists, it is replaced and, if it not exists, a new file is created
-     Append: if the file already exists, the notification is appended and, if it not exists, a new file is created

Command

Indicates whether or not a BATCH command file should be started.

The | **Browse** | button can be used to search for the name of the command file to be executed.

The parameters given when the command is started are stated in the appendix.

The command file name ***must*** be preceded by one of the following command interpreter parameters:

-     /C: specifying that the batch window will be closed at the end of the procedure execution
-     /K: specifying that the batch window will remain open at the end of the procedure execution.
-     /N: indicating that the command is run without a console window

For commands having a pathname containing spaces, enclose the pathname with double quotes. If the file is chosen by using the Browse button, the double quotes are automatically added by the program.

Receive Notifications Service

Presentation

This service is composed with the following components:
- **CeNotSrv.exe:** program used to Install/Uninstall the service
- **CeNotCfg.exe:** program used to configure the service
- **CeNotMon.exe:** the service

Using the service in place of the utility allows to ensure that:
- The functionality is always running onto the client station
- May be started and stopped locally or remotely using Windows Service Manager
- May be managed locally or remotely using the Event viewer
- His execution and the associated treatments may be controlled using Windows account system.

The list of Windows application journal messages is stated in the appendix.

Install/Uninstall the Service

The program **CeNotSrv.exe** may be used to install/Uninstall the Service.

When installing the service, the following parameters may be stated:

List of dependent services
Two lists are shown: Firstly the list of services installed on the computer, and secondly the list of services on which the Connect:Express service depends.
The dependent services are those services, which must be started before the Connect:Express service.
Type of start
Can be used to indicate to the Windows service manager, if the service is to be started manually or automatically.

When uninstalling the service, no parameters are supplied. If the service is running, it is stopped first.

Parameters

The program **CeNotCfg.exe** may be used to configure the service.
The parameters for the service are stored in the **CeNotMon.ini** file, located in the execution directory for the service.

They consist of the following:

Service
Installed
This indicates whether or not the service is installed.
Service name
This indicates the name of the installed service.
Desktop interaction
This indicates whether or not the service may interact with the desktop.
Desktop name
This indicates the name of the desktop to interact with.
Details on Desktop interaction are stated in the appendix.

Network
TCP/IP
Port number
This indicates the number of the port for receiving notifications. It must be identical to the port stated in the corresponding client definition at monitor level.
DLL name
This indicates the name of the Windows socket DLL.
API version
This indicates the Windows socket version that will be used by the service to interface the TCP/IP network using the DLL stated above..

Named Pipe
Name of Pipe:
Indicates the name of the (named) pipe for receiving notifications. It must correspond with the name of the pipe stated in the corresponding client definition at monitor level.

PROCESSING in Successful transfer notifications received
These different parameters indicate the processes to be carried out when the utility receives correctly ended transfer notifications.

PROCESSING in Unsuccessful transfers notifications received
These different parameters indicate the processes to be carried out when the utility receives transfer notifications containing an error or that have not ended correctly.

Alert
Indicates whether or not a user alert should be transmitted.
The only possible user alerts is: <u>Popup</u>: 'Pop-up' information window displayed.
Windows LOG
Indicates whether or not the reception of a transfer notification is stated in the Windows application journal.

Acknowledgement file
Indicates whether or not an acknowledgement file should be created.
The name of the file to be generated should be stated.
A description of the acknowledgement file and some sample names are given in the appendix.
If the file to be generated already exists an error is detected and a message displayed.
The creation of the file is also specified:
- New: the file must not already exist. If it exists, an error occurs

- Replace: if the file already exists, it is replaced and, if it not exists, a new file is created
- Append: if the file already exists, the notification is appended and, if it not exists, a new file is created

Command

Indicates whether or not a BATCH command file should be started.
The | **Browse** | button can be used to search for the name of the command file to be executed.

The command file name *must* be preceded by one of the following command interpreter parameters:
- /C: specifying that the batch window will be closed at the end of the procedure execution
- /K: specifying that the batch window will remain open at the end of the procedure execution.
- /N: indicating that the command is run without a console window

For commands having a pathname containing spaces, enclose the pathname with double quotes. If the file is chosen by using the Browse button, the double quotes are automatically added by the program.

The parameters given with the command may be standard or personalized.
Standard parameters are:
- &REQNUMB: transfer request number
- &FILENAM: symbolic file name
- &DIR: transfer direction (T=Transmission, R=Reception)
- &ORG: symbolic partner name that issued the transfer request
- &DEST: symbolic partner name that received the transfer request
- &DSNAME: physical file name transferred
- &STATE: transfer status (E=Ended, I=Interrupted, S=error during Selection, W=purged when Waiting selection)

Personalized parameters are chosen using the | **Detail** | button.
The parameter list is shown in the order in which the parameters will be delivered to the batch command file.

The transfer notifications are created by the monitor at the end of the transfer (successful or not).

First, the notification is memorized into the Notifications file, that may be viewed using the graphical interface, one for each client stated at each level (Global, File directory or On demand) of notifications.

Second, the monitor searches the network client information and, when it is found, tries to send the notification to the utility on the client station.

Transfer Monitor Service

You can install Sterling Connect:Express as a Windows service.

Note:
Depending on the Windows environment, you may be required to change the properties of the file tom_srv.exe, and run it as Administrator.

Install the Service

The **tom_srv.exe** utility is a program installed with Sterling Connect:Express.

It is used to install and uninstall the Sterling Connect:Express monitor as a Windows service and can only be used locally.

The service parameters are stored in the parameter file **tomnt.ini** monitor and they can be viewed from the graphical interface.

This utility has an input window for the following parameters:
- The list of dependent services
- The type of start

List of dependent services
Two lists are shown: Firstly the list of services installed on the computer, and secondly the list of services on which the Connect:Express service depends.
The dependent services are those services, which must be started before the Connect:Express service.
It is advisable to state the networks that are installed and utilised as being the 'SNA Server' service for the LU7.2 network and the 'Eicon cards' service for the X.25 network. For TCP/IP there is no need to configure any dependencies.

Type of start
Can be used to indicate to the Windows service manager if the service is to be started manually or automatically.

Remarks:

- Information about the start parameters and the user account under which the monitor is running can be obtained from the Windows NT Services Manager.
- The Connect:Express service stores messages relating to whether or not it has correctly initialized and whether or not it has ended correctly in the journal of applications accessible by the Windows Events Observer.

Uninstall the Service

When uninstalling the service, no parameters are supplied. If the service is running, it is stopped first.

View Monitor Messages Utility

The **tom_log.exe** utility is a program installed with Sterling Connect:Express.

It is used to view monitor messages locally when the monitor does not start and it is therefore impossible to view messages on the graphical interface

This utility has a window to display the monitor messages.
The | **Refresh** | button can be used to update the display in the window.

The | **help** | button provides access to the monitor messages and return codes.

Services – Interaction with Desktop

Transfer Monitor Service - Windows and Access Rights

When the transfer monitor is installed as service, its execution is controlled by the system using the system account and the choice to run under the local system account or a user account is made using Services manager.
When the service is attached to the local system account:

- The service may interact with all desktop, so his window and the batch command windows may be visible on the current one
- The access rights do not allow the service to access to file shared on the network

When the service is attached to a user account:

- The service may interact only with the desktop of this user and, if the user is currently connected, the service window and the batch command windows may be visible
- The service may access to file shared on the network if the user owns this right

Note:
When a batch command window is visible, the current user may get control on the command interpreter by pressing CTRL-C and pass system commands using the local system account is the service run under the local system account.

Receive Notifications Service – Windows and Access Rights

The same rule applies to this service as the transfer monitor.
Also, in the Receive notifications service parameters, the desktop name to interact with may be entered.
The default desktop name is 'Winsta0\default'. It is the default desktop name.

Batch Utility

Messages

API initialized
API ended
These messages state that the Sterling Connect:Express API has successfully initialized or ended.

Connected to monitor
Disconnected from monitor:
These messages state that the Sterling Connect:Express monitor has successfully connected or disconnected .

Address error in API
API error: ApiRc= xx SysRc= xx TcpRc= xx TomRc= xx

Explanatory text: nnnnnn
These messages give the error codes together with an explanatory text.
The ApiRc error codes are described in the '***Sterling Connect:Express for Microsoft Windows Programming Guide'.***
The SysRc, TcpRc and TomRc codes are described in the ***'Sterling Connect:Express for Microsoft Windows User's Guide'.***

Compulsory parameter not found: Symbolic name of file
This message states that the compulsory 'symbolic file name' has not been given.

Unknown parameter no. xx
Unknown parameter 'nnnnnnnnnnnn'
This message states that the parameter no. 'xx' or 'nnnnnnnnnnn' is unknown..

Incorrect length for parameter 'nnnnnnnnnnnn'
This message indicates the parameter of which the length is incorrect.

Missing parameters
This message indicates that parameters are missing

xx request(s) submitted
Request no. nnnnnnnnnnnn accepted
These messages indicate that one or more transfer requests have been successfully submitted, together with their names and Sterling Connect:Express numbers.

Incorrect syntax in parameter no. xx
The syntax in parameter 'nnnnnnnnnnnn' is incorrect
These messages indicate an error in the syntax of parameter number 'xx' or 'nnnnnnn'

Incorrect value in parameter no. xx
This message indicates that the value in parameter no. 'xx' is incorrect.

Execution Return Codes

0	No error
1	No parameters on command line
2	Incorrect syntax for parameters
3	Incorrect length or value in the parameters
4	Compulsory parameter not found:
10	API error
11	Sterling Connect:Express monitor error

Description of Acknowledgement File

The acknowledgement file contains a record 2073-characters long, broken down as follows:

Position 1, 3 characters
Text containing the letters '**TRF**'. It is used to differentiate the different notifications in future use.

Position 4, 8 characters
Name of notified client. This is the name of the client stated in the Sterling Connect:Express monitor notification request

Position 12, 12 characters
Number of transfer request for the Sterling Connect:Express monitor in YYYYQQQNNN format

Position 24, 10 characters
Date the notification was issued by the Sterling Connect:Express monitor in YYY/MM/DD format.

Position 34, 8 characters
Time the notification was issued by the Sterling Connect:Express monitor in HH:MM:SS format.

Position 42, 16 characters   :
Applicable identifier for the transfer indicated when the request was submitted to the Sterling Connect:Express monitor.

Position 58, 1 character
Transfer status, which may be any of the following:
- E= Transfer Ended correctly
- S= transfer defective (Selection error) and not started
- I= transfer started but is defective (Interrupted)
- W= transfer not started (Waiting) and cancelled

Position 59, 4 characters
TRC code of the transfer

Position 63, 4 characters
PRC code of the transfer

Position 67, 8 characters
SRC code of the transfer

Position 75, 4 characters
ERC code of the transfer

Position 79, 4 characters
NRC code of the transfer

Position 83, 1 character
Direction of transfer which may be either of the following:
- T= for a transmission
- R= for receiving

Position 84, 8 characters
Symbolic file name

Position 92, 127 characters
Physical name of file transferred by the Sterling Connect:Express monitor

Position 219, 44 characters
Physical name of the file at the partner end, only if this is of Sterling Connect:Express type and only if the PeSIT
protocol is being used.

Position 263, 80 characters
File label
Corresponds to PI=37 of the PeSIT protocol

Position 343, 8 characters
Source of the transfer request
Corresponds to PI=4 of the PeSIT protocol

Position 351, 8 characters
Destination of transfer request.
Corresponds to PI=3 of the PeSIT protocol

Position 359, length 8:
Transfer monitor name

Position 367, length 8:
Remote partner name

Position 375, length 2:
Type of file which may take on the value of 'TF' for Fixed Text, 'TV' for Variable Text, 'BF' for Fixed Binary, or
'BI' for Undefined Binary

Position 377, length 1:
Type of data contained in the file and may take on the values 'A' for ASCII or 'E' for EBCDIC, or 'B' for Binary

Position 378, length 5:
Size of the file records in bytes

Position 383, length 12:
Number of records transferred

Position 395, length 12:
Total number of bytes for this transfer

Position 407, length 1:
Type of network used for client access to the transfer monitor (T=TCPIP, N=Named Pipe)

Position 408, length 6:
Client Tcpip port of the transfer monitor

Position 414, length 16:
Tcpip address of the transfer monitor

Position 408, length 128:
Client Named Pipe of the transfer monitor

Journal file record:

Position 536, length 12:
(ReqNumber)

Position 548, length 10
(JnlDate)
Date that the journal record was registered in YYYY/MM/DD format

Position 558, length 8:
(JnlTime)
Time that the journal record was registered in HH:MM:SS format

Position 566, length 8:
(ExtReqNb)
Number of the transfer request at the partner end in 8 characters

Position 574, length 16:
(CliIdent)
Application identifier for this transfer

Position 590, length 6:
(TrfId)
PeSIT identifier for the transfer

Position 596, length 8:
(CliName)
Symbolic name of the client initiating the request

Position 604, length 4:
(Trc)
Sterling Connect:Express code of the error

Position 608, length 4:
(Prc)
Protocol code of the error

Position 612, length 8:
(Src)
System code of the error

Position 620, length 4:
(Erc)
C_TREE code of the error

Position 624, length 4:
(Nrc)
Network code of the error

Position 628, length 4:
(TcpipRc)
TCP/IP code of the error

Position 632, length 4:
AppcPrc)
Primary LU6.2 code of the error

Position 636, length 8:
(AppcSrc)
Secondary LU6.2 code of the error

Position 644, length 4:
(X25rc)
X25 code of the error

Position 648, length 2:
(X25Cause)
X25 CAUSE code of the error

Position 650, length 2:
(X25Diag)
X25 DIAGNOSTIC code of the error

Position 652, length 1:
(ReqStatus)
Status of the transfer and the values may be 'E' for Transfer Ended, 'S' for Selection Error, 'I' for Interrupted, 'C' for Transfer currently taking place, 'T' for Selected, 'W' for awaiting selection of transfer or 'R' for automatic restart currently taking place

Position 653, length 1:
(ReqState)
May be 'O' [Yes] if the request is purged by the monitor or 'N' if not

Position 654, length 1:
(ReqUserType)
Type of the initiator of the request, and can take on the values 'I' for Internal, 'E' for external

Position 655, length 1:
(ReqType)
Type of request. May take on the values 'D' for Inquiry 'N' for Normal, or 'A' for Hold

Position 656, length 1:
(Direction)
Direction of transfer authorized for the file and may take on the value of 'R' for Receive or 'T' for Transmit

Position 657, length 1:
(Priority)
Priority of the transfer and may take on the values 'L' for Low or 'N' for Normal, or 'U' for High

Position 658, length 1:
(Linktp)

Type of network used to communicate with this partner which may take on the values 0x01 (TCP/IP), 0x03 (X25) or 0x04 (LU62)

Position 659, length 8:
(FileName)
Symbolic name of the file

Position 667, length 127:
PhysName)
Physical name of the file

Position 794, length 44:
(PhysOname)
Original physical name of the file

Position 838, length 44:
(RemPhysName)
Physical name of the file at the partner end

Position 882, length 80:
(Label)
File label

Position 962, length 14:
(CreDateTime)
Time and date that the file was created in YYYMMDDHHMMSS format

Position 976, length 14:
(MajDateTime)
Time and date that the file was updated in YYYMMDDHHMMSS format

Position 990, length 8:
(Origin)
Origin of the file

Position 998, length 8
(Destination)
Destination of the file

Position 1006, length 8:
(Transmitter)
Transmitter of the file

Position 1014, length 8:
(Receiver)
Receiver of the file

Position 1022, length 1:
(FileOrg)
Indicated by the API, this is the way the file is organised and may take on the value of 'I' for Indexed or 'S' for Sequential, or 'R' for Relative

Position 1023, length 2:
(FileType)
Type of file which may take on the value of 'TF' for Fixed Text, 'TV' for Variable Text, 'BF' for Fixed Binary, or 'BI' for Undefined Binary

Position 1025, length 1:
(Definition)
Definition rule for the file, which may take on the value of 'F' for Fixed or 'D' for Dynamic

Position 1026, length 1:
(Compress)
Type of compression requested and may be the following: ' ' for No Compression, 'H' for Horizontal compression, 'V' for Vertical compression, or 'M' for Mixed

Position 1027, length 1:
(RealComp)
Type of compression carried out and may be the following: ' ' for No Compression, 'H' for Horizontal compression, 'V' for Vertical compression, or 'M' for Mixed

Position 1028, length 1:
(DataType)
Type of data contained in the file and may take on the values 'A' for ASCII or 'E' for EBCDIC, or 'B' for Binary

Position 1029, length 5:
(RecordLg)
Size of the file records in bytes

Position 1034, length 12:
(FileSize)
Size of the file in bytes

Position 1046, length 4:
(MsgSize)
Size of the network messages, in bytes

Position 1050, length 8:
(LocName)
Local Sterling Connect:Express symbolic name

Position 1058, length 8:
(PartName)
Symbolic name of the partner

Position 1066, length 1:
(PartType)
Type of partner and may take on the values 'T' for Sterling Connect:Express or 'O' for Other

Position 1067, length 1:
(ProtType)
Type of protocol used with this partner which may take on the values 'D' for PeSIT-D, 'E' for PeSIT-E or '3' for ETEBAC-3

Position 1068, length 1:
(CrcOpt)
May be 'O' [Yes] if the CRC check mechanism has been used during the transfer or 'N' if not

Position 1069, length 2:
(Sync)
Synchronisation interval in Kilobytes

Position 1071, length 2:
(Wind)
Synchronisation window

Position 1073, length 5:
(TcpipPort)
Partner's TCP/IP port number

Position 1078, length 15:
(TcpipAddr)
Partner's IP address in 'aaa.bbb.ccc.ddd' format

Position 1093, length 127:
(TcpipName)
Partner's TCP/IP 'host'

Position 1220, length 8:
(LuName)
Name of the partner's LU

Position 1228, length 8:
(ModName)
Name of the partner's mode

Position 1236, length 64:
(TpName)
Name of the partner's transaction program

Position 1300, length 15:
(XRaddr)
Partner's X.25 address

Position 1315, length 15:
(XLaddr)
Local X.25 address specified when the partner makes the call

Position 1330, length 2:
(XnPort)
Number of the X.25 port used for this partner

Position 1332, length 8:
(Xudata)
User data field specified when the partner makes the call

Position 1340, length 32:
(Xfac)
Facilities field specified when the partner makes the call

Position 1372, length 10:
(BegDate)
Date that the transfer starts in YYYY/MM/DD format

Position 1382, length 8:
(BegTime)
Time that the transfer starts in HH:MM:SS format

Position 1390, length 10:
(EndDate)
Date that the transfer ends in YYYY/MM/DD format

Position 1400, length 8:
(EndTime)
Time that the transfer ends in HH:MM:SS format

Position 1408, length 2:
(RestartCount)
Number of restarts made for this transfer

Position 1410, length 1:
(OpenAct)
Action carried out when the transferred file is opened, and may take on the following values: 'N' for New file created, 'R' for existing file Replaced, or 'O' for existing file can be opened in 'read only' mode

Position 1411, length 3:
(Resync)
Number of resynchronisations made for this transfer

Position 1414, length 12:
(TotByte)
Total number of bytes for this transfer

Position 1426, length 12:
(TotRec)
Number of records transferred

Position 1438, length 12:
(TotIO)
Number network entries/exits made for this transfer

Position 1450, length 10:
(ScheDate)
Date that the requested transfer starts in YYYY/MM/DD format

Position 1460, length 8:
(ScheTime)
Time that the requested transfer starts in HH:MM:SS format

Position 1468, longueur 254:
(UserDataSent)
Pi99 sent

Position 1722, longueur 254:
(UserDataReceived)
Pi99 received

Position 1976, longueur 24:
(Pi61)
Pi61

Position 2000, longueur 24:
(P62)
Pi62

Position 2024, longueur 48:
(UnUsed)

Position 2072, longueur 2:
0xOD,0x0A (CR/LF)

Naming the Acknowledgement File

The name of the acknowledgement file may contain '..\' and '*' characters which will be applied to the physical name of the transferred file

Physical name of the transferred file: **C:\APPLI\FILE\TEXTE.txt**
Name of acknowledgement file indicated: **..\ACK*.ACK**
Used to generate the **C:\APPLI\ACK\TEXTE.ACK** file

Or it can be fixed:

Name of acknowledgement file indicated: **C:\ACK.txt**
Used to generate the **C:\ACK.txt** file

Batch Command Parameters

The BATCH commands file which is executed by the receive notifications utility receives the following variables:
- **%1**: transfer request number
- **%2**: symbolic file name
- **%3**: direction (T = transmit, R = receive)
- **%4**: source partner of request
- **%5**: destination partner of request
- **%6**: physical file name
- **%7**: status of transfer (E= Ended correctly, S= Selection error, I= Interrupted, W= aWaiting selection

Windows Application Journal Messages

Service started.
States that the receive notifications service was successfully started

Service stopped.
States that the receive notifications service was successfully stopped

Stopping service in progress.
States that the receive notifications service will stop

Starting service in progress.
States that the receive notifications service will start

Successful transfer notification received - request number %1.
States that a notification was received for a successful transfer. The transfer request number is specified.

Error transfer notification received - request number %1.
States that a notification was received for a unsuccessful transfer. The transfer request number is specified.

Notification received - Unknown header.
States that an unknown type of notification was received.

File I/O - nnnnnnnnnnnnn.
States that an internal file I/O error was detected. The file name, file action and the system return codes are also specified.

Network I/O error - %1.
States that an internal network I/O error was detected. The action and the network return codes are also specified.

System error - %1.
States that an internal system error was detected. The action and the system return codes are also specified.

Execution error - %1.
States that an internal error was detected. Generally this error appears when the service manager tries to start the service more than one time.

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