Getting   Started   with CTFax

About   CTFax
System   Specification

About   CTFax

This document describes CTFax, a client-server fax system for Microsoft Windows NT and Windows 95.   The system supports concurrent sending and receiving of multiple fax documents utilizing one or more fax modems attached to the fax server.   The system was designed and implemented from the scratch, and it takes the advantage of the Microsoft Windows NT/95 architecture.   The system features robust and flexible fax server, and   simple, straightforward and intuitive fax client processing capabilities for users on the Windows desktop.

System   Specification

The system enables any Microsoft Windows NT / 95 network user to send and receive fax messages, using one or more Class 2 or Class 2.0 fax modems attached to a fax server running on a Microsoft Windows NT computer.   In addition, the system enables any Microsoft Windows application that can print, to create and send a fax document. A fax document created and formatted on a client computer is being forwarded to the fax server, and then sent over a fax modem to the intended recipient.

The system can receive a fax message sent by any Group 3 fax device or a fax modem, and make it available for later retrieval to any Windows NT / 95 addressed user on the network. Fax modems attached to a fax server receive fax messages, the fax server stores them, and a fax client application delivers them to the end user on the Windows desktop.

Fax service is available for any client computer on your LAN having installed CTFax client software (client computers don't need modems). Of course, you can install both client and server part on the same computer too.

CTFax also enables any LAN user to send fax messages to other LAN users attached to the same CTFax server.

*CTFax   is intended to be used on **Windows NT 4.0** (server & client part) and **Windows 95** (client part only).*
*It supports up to **128 modems** simultaneously and **unlimited** number of users.*
*Some of supported hardware is listed in   the **CTFax Installation Guide**   document.*

*Please note that CTFax can exchange faxes with any fax modem (fax machine), but   on the server side we do support only **class2** & **class2.0**   fax modems (the older class1 fax modems aren't supported).*

System   Components

From user's viewpoint, the CTFax package consists of the five basic components:

- ***CTFax Setup Program***
- ***CTFax   Server***
- ***CTFax   Printer   Driver***
- ***CTFax   Manager***
- ***CTFax   Viewer***
- ***CTFax   Notifier***

CTFax Server is responsible for multiple modems handling, multiple remote client connection request validation and handling,   fax messages queue and history handling, management of the registered LAN users database and the global address book.

*CTFax Printer Driver, CTFax Manager and CTFax Viewer are **client-side components**. Printer driver responsibility is to aid any Windows application that is capable of printing documents to fax the same.   CTFax Manager is responsible for managing fax messages, address books, user administration and modem configuring. CTFax Viewer is responsible for viewing and printing fax messages.*

Setup   Program

Because you have arrived to this point, you have already used the CTFax Setup program, which installs all the system components and sets the system up and running.

Please note that you can install the newer version(s) of the CTFax package over the existing ones; your registry entries and data structures will generally be preserved. Note however that the format of some data structures has been changed since the pre-release (Beta) CTFax versions; in such cases the old data may be lost after the installation of a Release CTFax version.

CTFax Server

CTFax Server is implemented as a **Windows NT Win32 Service**, so it is active all the time regardless of users logging on and off. After you install the CTFax Server on a Windows NT computer, you can proof its presence by activating Control Panel, and then clicking on Services, or by activating CTFax Manager and trying to get information from the server.

CTFax Server's main tasks are: multiple modems handling, multiple remote client connection request validation and handling, fax messages queue and history handling, management of the registered LAN users database and the global address book.

The CTFax Server keeps the **database of the LAN users** attached to (registered on) it. Every user, identified by his/her Windows NT user name, can have the following special rights: administration, dispatching of faxes, and global address book change.

CTFax users with **administration right** can add new CTFax users, remove them or change their data; view, add, change or delete modem configurations; view and manipulate (in certain limits) server's sending and receiving queues, fax history database ('journal' database), and event log.

CTFax users with **dispatching right** have the responsibility to forward faxes received by modem but not addressed to any particular user of the system.

CTFax users with **right to change the global address book** can add, delete or modify entries in the global address book, which all other users can only view and select entries from it when sending faxes.

Multiple modems can be attached to, and handled by the CTFax Server at the same time. Each modem is configured and managed separately, and can be set to either send, receive or send and receive faxes. A CTFax user with administration rights can configure every particular modem in the system with the aid of the CTFax Manager application. Modem and port configuration can be added to, changed or deleted from the modem database. The user can even define a number of different modem configurations for the same port, but only one configuration for a certain port can be enabled at a time. This feature can be useful in the testing phase, when the administrator can quickly test different configurations, without having to retype modem parameters each time. During server startup, every modem is configured according to the saved data with one important exception. Modem(s) marked as 'Send only' are not initialized during server startup to allow **modem sharing** between different applications.

Fax messages received by modems reside in the **receiving queue** until a dispatcher retrieves and dispatches them to LAN users (namely, in this CTFax implementation all such faxes are '**anonymous**' - i.e. their destination is not known until the dispatcher views their images and decide to whom they belong).

Each fax sent by some LAN user and scheduled to be sent by modem waits in the **sending queue** until the server dispatches it to a particular modem. If a sending attempt is unsuccessful, the fax waits in the queue for the next attempt. After a certain (configurable) number of attempts is exhausted, the fax is being deleted from the queue and returned to the sender.

The server also keeps the information database of all sent and received faxes (the **history database**, or '**journal**').

A CTFax administrator can get and view the whole contents of the receiving and sending queue and the history database. Other users can only get lists of faxes belonging to them. However, a fax administrator cannot view the images of faxes that do not belong to him/her.

CTFax   Printer   Driver

CTFax Printer   *is activated when the user **prints** a document (or the selected part of it) from any Windows application that has printing capabilities, and selects CTFax Printer. Then a dialog box appears prompting the user to specify the recipient(s) of the fax message as well as other optional parameters.*

The optional parameters are:
- ***Server***
- ***Subject***
- ***Send time***
- ***Priority***
- ***Safer Dialing and Transmission flag***
- ***Keep Sent Fax flag***
- ***Send Cover Page flag***

Server *determines the fax server that will send the fax message through one of its modems.*
Subject *is used for the cover page (if specified), as well as for directly informing the recipient about the fax contents (if the recipient is a LAN user), and also for the book-keeping purposes.*
Send time *determines the time when the fax message will be delivered.*
Priority *can be set to **High** if user wishes to send an urgent fax.*
Safer Dialing and Transmission flag *when set lowers dialing and transmission speed in order to reduce communication errors. This option is useful if you experience difficulty in transmitting documents 'overseas' or, to be more specific, when sending documents over poor quality transmission lines.*
This feature will make sending documents more reliable, but the transmission time will increase.
Keep Sent Fax flag *when set will preserve the copy of the sent fax document in the '**Sent Faxes**' box.*
Send Cover Page flag *when set creates and sends the document cover page which enables the recipient to dispatch the received fax message to the end user quickly and without need to actually read the document contents.*

CTFax Manager

HOW   TO   USE   CTFAX MANAGER

*You can find the CTFax Manager application under the   **Start -> Programs -> CTFax** program group. When you activate the application, you'll see that it contains two window panes. The **left pane** (tree pane) has a tree-like structure with names of particular lists that you can view in the **right pane**. Every time you click on a list's name, the list contents appears in the right pane.*

*You can use the **right mouse button** to activate context menus in both panes. When you click the right mouse button in the right pane, the activated **context menu** depends on the list currently displayed. When you click the right mouse button in the left pane, the activated context menu depends on the currently selected item.*

Another way to use commands from most context menus is through the main menu.
*The second item (the second sub-menu) of the main menu depends on the list currently displayed in the right pane. As you keep changing the list displayed in the right pane, you'll notice that the label of the second main menu item changes - it can be: **List**, **Fax**, **Modem**, **Address**, **User**, **Journal** and **EventLog**.*
*When user selects a server's name in the tree pane and clicks the right mouse button, a context menu appears with commands for starting, stopping, suspending, ..., the server. The same sub-menu is available from the main menu item **Server**.*

CTFAX MANAGER   LISTS

*In the left pane of the CTFax Manager application there are two main groups of lists: **Personal Folders** and **Fax Servers**.*

Personal   folders
*The lists placed underneath the Personal Folders tree node **(Input Box**, **Output Box**, **Sent Faxes**, **Returned Faxes**, **Dispatch Box** and **Address Book**)   are personal lists of that particular user who has started the CTFax Manager application. They reside on the computer the user is working on (or somewhere else on the network if the user had set paths in a different manner).*

Input   Box
*The Input Box is a list of the received faxes.   Every time when   the user selects **Input Box**, the CTFax Manager connects to the CTFax Server and asks for a list of his or her received faxes. If there are new faxes received from the server, a dialog box with the corresponding message will appear. New faxes are displayed in the **Input Box** along with the existing ones.*

Output   Box
*The Output Box is actually a list of faxes that couldn't be sent to the server. If user tries to send a fax, and the fax server cannot receive it (perhaps because the server application is not active at the time),   the fax will arrive into the user's **Output Box**, so that it can be sent at a later time.*

Returned Faxes

*The Returned Faxes list is a list of outgoing faxes that the server was unable to deliver. Every time when   the user selects **Returned Faxes**, the CTFax Manager connects to the CTFax Server and asks for a list of his or her outgoing faxes that couldn't be delivered. If there are new faxes received from the server, a dialog box with the corresponding message will appear. New faxes are displayed in the **Returned Faxes** list along with the existing ones.*
*If desired, the faxes in this list can be sent to the server again, by activating the **Send** command from the context menu.*

Dispatch   Box
The Dispatch   Box is a list of received 'anonymous' faxes.   When a new fax is received by a modem, its recipient is usually unknown (that's while they are called anonymous). We should emphasize here that there is possibility in the message format to have an information about the final recipient. This means that all faxes received by modem wouldn't be anonymous. However, this useful feature isn't implemented at present time.

*Every time when a user with the '**Dispatch faxes**' right selects Dispatch Box, the CTFax Manager connects to the CTFax Server and asks for a list of received anonymous faxes. If it finds something a dialog box with an informative message will appear.*

User with 'Dispatch faxes' permission can then take a look into the fax image (usually s/he'll need to view only the first (cover) page, where usually resides information for whom is that fax destined) and,   now when s/he knows to whom is the fax destined, s/he can dispatch the fax to that user.

To make it clear, we will describe the whole procedure of receiving a fax:
*Server puts a newly received fax   into the **receiving queue** where all received faxes reside until a user with dispatching rights   picks up a list of anonymous faxes. When the dispatcher (user with 'Dispatch faxes' rights) gets an anonymous faxes list, the anonymous faxes are transferred to the dispatcher's client computer, where (s)he activates the 'Dispatch' command and writes, in a dialog box, a fax **recipient user name**. Dispatch function then returns fax to the server, which puts it in its receiving queue (but now this fax is no longer anonymous, now it has a specific destination).*

*Let us assume that the fax was for a user with user name 'jsmith'. When the user 'jsmith' next time starts his CTFax Manager and selects '**Input Box**', in order to check newly received   faxes, he will receive from the server all faxes destined to him. The faxes are transferred to his computer and deleted from the server's queue (server only keeps track of all sent/received faxes and not the faxes themselves).*
*The user can then or at a later time,   obtain a list (**journal**) containing information   about   all of   his sent /received faxes.*

Personal   Address Book
The Personal   Folders->Address Book is the local address book (user's private address book) used for saving fax numbers and other data of user's business partners, friends, etc.

Fax   Server

Registered   Users
The Registered   Users folder contains   a list of local (LAN) fax users registered on this CTFax server, and their rights in the system.

User   rights
In the 'Add User' dialog box you can grant to user the following rights:
      Global Address Book Change;
      Dispatch faxes;
      Administration.

User with '**Global Address Book Change**' permission can read/write/modify global address book (which resides on the server computer),   all others can only read the global address book (but they can manage their personal address books residing on their local computers). Global address book should contain addresses of interest for the company as a whole (business partners, etc.).

User with '**Dispatch faxes**' permission can dispatch anonymous faxes.
When a new fax is received by modem, the recipient is usually unknown (that's while they are called anonymous).
User who has 'Dispatch faxes' rights can obtain anonymous faxes from the server, take a look into the fax image and, after deciding for whom the fax is designated, dispatch that fax to this user.

User with '**Administration**' permission can add and delete users, modify their rights in the system and   read/write/modify port and modem configurations.
'Administrator**'** (user with CTFax 'Administration' right) can manage global receiving/sending queue and global journal lists including right to delete (abort) any fax request, while ordinary user can manage only his/her request(s).
'Administrator' can see server's log where he can find useful information about server errors and warnings, and all events in the system.

Modems
The Modems folder contains a list of modem configurations from the server's modem database.

In most cases, you will find that default values are working fine, otherwise you will need to change offending parameter(s).

Standard options

Some of the parameters are self explaining, while others may be rather cryptic at first sight. We will explain,   in short, their meaning:

      Port Name .... Serial port name (e.g. COM2);
      Modem Name .... Fax modem name (e.g. 3Com, Hayes, Telebit, ...);
      Configuration Enabled ... Enables/Disables this configuration profile;

Port Data Rate .... *Serial port data rate determines character speed between PC and modem (e.g. 38400);*

Fax Modem Data Rate ... *Fax Modem Data Rate determines speed between two fax modems (e.g. 14400);*

Send/Receive Mode .... *Determines whether this line will be used for sending faxes only, receiving only or both (sending and receiving);*

Rings Before Answer ..... *Defines number of rings before answering a phone call on fax reception*

Pulse/Tone Dial .... *Pulse (rotary) or tone (MFC) dialing when sending faxes by modem;*

Dial Prefix .... *The number needed to reach an outside line when sending faxes by modem, such as 9, or 7,. Do not enter an area code in this field. Use a comma after each numeric code, such as 9,. The comma produces a pause so that your phone system has a chance to respond after the previous input.*

Flow Control .... *The method of regulating the flow of information between your PC and modem.* **HW(RTS/CTS) flow control** *is the most preferable choice.*

Note: *You should always use flow control. If your modem doesn't react as it should and/or you get a message from the system that your modem is configured without flow control, find specific command in your modem user's guide and write it in the* **'Additional Init String'** *field (**Advanced options**).*
Eg. AT S58=2 S68=255 defines HW (RTS/CTS) flow control for Telebit World Blazer modem. Other modems may have different init strings (e.g. AT &K3).
Refer to your modem user's guide for the particular command, if the default one doesn't work.

Advanced options

Speaker Volume .... *You can choose between (Low, Medium and High);*

Speaker On/Off .... *Turns speaker On, Off, On Until Carrier, ... etc.;*

Disable Call Waiting String ... *If your fax and phone line share the same number, and if the phone line has* **Call Waiting**, *then incoming calls can interrupt the fax transmission. Most phone systems allow you to disable call waiting by dialing either 1170 or *70 before you make a call. By entering this code in '**Disable Call Waiting String**' field, you ensure that fax transmissions are not interrupted by call waiting. You can disable call waiting for outgoing faxes only.*

Class2DataRateBitOrder .... '**Standard**' *behavior for class2 fax modems is to reverse data bit order when receiving faxes. If it is not case with your modem, you can*

choose a different setting.
Additional Init String *............ You can put here a number of modem*

commands specific for your modem

type, and

they will be executed after the

standard modem

initialization.

Global Receiving Queue & Global Sending Queue
*Global Receiving Queue and Global Sending Queue folders contain the list of **all** faxes received or waiting to be sent, respectively with all relevant information.*

Personal Receiving Queue & Personal Sending Queue
*Personal Receiving Queue and Personal Sending Queue folders contain the list of **user's** personal faxes received or waiting to be sent, respectively with all relevant information.*

Global Journal & Personal Journal
The Global Journal list contains the history of all faxes in the system that have been sent or received so far.
The Personal Journal list contains information about the history of all faxes received or sent by a particular user.
Fax messages are not being written into the history database until they are removed from the server's sending or receiving queue.

Global Address Book
The Global Address Book is system-wide address book used for saving addresses (fax numbers and other relevant data) that are meaningful and useful for most LAN fax users (e.g. business partners addresses).

Denied Access Book
This is a database of fax senders you don't want to receive faxes from (e.g. senders of junk faxes, etc.). When the CTFax Server starts receiving a fax over a modem, it first checks this database, and if it finds the fax sender in the database, the server breaks the connection immediately, refusing the incoming fax. The server recognizes the fax sender by means of its station identifier. How you can know the station identifier of a fax sender you would like to add into the Denied Access Book? If you received a fax from the sender, you can see its station identifier in the 'From' column of your Input Box in the CTFax Manager, and you can enter the same number or identifier when adding a new fax sender entry in the Denied Access Book.

Please note that in the current implementation you have to restart the CTFax Server after changing the Denied Access Book, if you want the changes to take effect.

Event Log
The Event Log keeps track of all system-wide error and warning messages, as well as all events in the system.

CTFax   Viewer

*You can find the **CTFax Viewer**   application under the   **Start -> Programs -> CTFax** program group.*

CTFax Viewer   *application enables end user to **view** or **print** selected fax image.*
It has some nice features like:
- ***Reviewing Image Pages In Specific Order***
- ***Left/Right Rotating Image and Flip***
- ***Zoom***

Reviewing Image Pages in Specific Order *allows user to review **next**, **previous**, **first**, **last** or **specific** page of related document.*
Left/Right Rotating Image and Flip *features rotate image for (+/-) 90 and 180 degrees.*
Zoom *feature enlarges image by specific zoom factor (25%, 50%, 75%, 100%, 200% or 300%).*

*Among others, there are **print** and **print preview** commands too.*

CTFax Notifier

The **CTFax Notifier** application notifies the user about the newly received faxes, by means of a pop-up dialog box and an optional tone signal. There are three types of faxes the **CTFax Notifier** can notify the user about: received personal faxes, new faxes for dispatching, and returned faxes (i.e. the outgoing faxes that couldn't be sent, so they were returned back to the user). The **CTFax Notifier** notifies the user about new faxes for dispatching only if s/he has dispatching rights.

You can find the **CTFax Notifier** application under the **Start -> Programs -> Cromerica CTFax** program group.

Once started the **CTFax Notifier** will reside in user's tray and check for incoming faxes every few minutes. User can click on the **CTFax Notifier** icon in the tray to configure the desired **check interval**.

Procedures

After Successful Installation

Sending   Fax   Messages

Aborting   Fax   Messages

Receiving   Fax   Messages

Viewing/Printing   Fax   Messages

Dispatching   Fax   Messages

Viewing   Status   of   Fax   Messages

Viewing   History   of   Fax   Messages

Viewing   System   Log

Modem   Sharing

System   Administration

After Successful Installation

*After successful installation, the user '**Administrator**' and other local NT **users** are already registered in the CTFax user database, but without any special rights. The user 'Administrator' can change their **permissions**: some of them can be given dispatching right, global address book change right, or CTFax administration right.*

*After installation, no **modems** are added to the CTFax modem database, so it is necessary to add them before using CTFax for sending / receiving fax messages by modems.*

*The **global address book** is already created but empty, and you may wish to add entries in it, so you can select them when sending fax messages.*

You may also change server parameters relevant for sending / receiving faxes, such as: fax station identifier, number of retries and interval between retries.

If you wish to be notified when new fax arrives, you will have to start CTFax Notifier.

<u>User Management</u>
<u>Port and Modem Configuring</u>
<u>Address Books Management</u>
<u>CTFax Notifier</u>

Sending   Fax   Messages

*Open **any** application with printing capabilities, such as Word, Excel, ...,
and activate the **Print** command. In the dialog box you should   select the **CTFax Printer**. You
may configure other options too (paper size, ...etc.). When you activate the **OK** button, the system
will show you a dialog box, waiting for you to type or select the fax recipient(s). You can type the
fax number directly, or you can select addresses from personal and global address books - please
note that you can also send faxes to other LAN   users registered on the CTFax Server. Finally
you activate the **Send Fax** button, and **that's all**.*

*If the server can't receive the fax you are trying to send it (the server may be in the **suspended**
mode or it may be **turned off**),   the fax will be saved in your **Output Box** and you can try to send
it at a later time.*

*For a quick test, you may send a fax to yourself (simply by selecting   your username in the
'**Send Fax To**' dialog box). The fax will appear in your **Input Box**, as all other faxes destined to
you.*

Sending   Fax   Messages   from   Output   Box
*All faxes that a user tries to send to the server, but the server for any reason cannot accept them
at the moment, are saved in the user's Output Box. The user can send   them later by either
clicking the right mouse button in the right pane and selecting the '**Send**' command, or by using
the **Fax** sub-menu.*

Exchanging   Faxes   within   Local   Area   Network (LAN)
*This procedure is similar to sending faxes by modem, except that you cannot type the name of the
recipient directly: you have to select it from the address book.
The recipient will receive the fax in her/his **Input Box**.*

Aborting   Fax   Messages

*To abort a fax that is currently in the process of sending or queued for sending, you have to select the fax in the **Global Sending Queue** or **Personal Sending Queue** list, and either select the '**Delete**' command from the context menu activated by the right mouse button, or by using the **Fax** sub-menu and then selecting the '**Delete**' command.*

Receiving   Fax   Messages

*Ordinary, when a new fax arrives through **LAN** (Local Area Network), it is placed in recipient's **Input Box**, where s/he can view it by activating the 'View' command.*

*When a new fax arrives by **modem**, its recipient is usually unknown (that's while they are called anonymous). The fax is waiting in the receiving queue for a user with dispatching right (a **fax dispatcher**) to get it and dispatch it to some other user.*

A fax dispatcher retrieves the fax (among other anonymous faxes) from the server, views its contents (usually the first page is sufficient) to determine its recipient, and then dispatches it to this user.

Now the fax again resides in the receiving queue but it is no more 'anonymous'.

*When the recipient   next time selects or refreshes the '**Input Box**' list in order to check newly received   faxes, s/he will get the fax from the server.*

Viewing/Printing   Fax   Messages

CTFax Viewer   *application enables end user to **view** or **print** the fax image.*

*When a new fax arrives, it is placed in recipient's   **Input Box**, where s/he can **view** it by selecting the received fax line and by activating the 'View' command either by pressing <Enter> key or by double clicking on it. **CTFax Viewer** will start automatically. Of course, the same applies to other (**Output Box, Sent Faxes, Dispatch Box,** ... etc) boxes too.*

***CTFax Viewer** enables user to **open** and **close** images, to draw them enlarged using a **zoom** factor(25%, 50%, 75%, 100%, 200% or 300%) and to **rotate** them for (+/-) 90 and 180 degrees.*

*Among others, there are **print** and **print preview** commands too.*

*You can find the **CTFax Viewer**   application under the   **Start -> Programs -> CTFax** program group too.*

Dispatching   Fax   Messages

When a new fax is received by a modem, its recipient is usually unknown (that's while they are called anonymous), and there must be someone who will deliver these 'anonymous faxes' to their recipients. The fax dispatchers (users with fax dispatching rights) have this duty.

(We should emphasize here that there is possibility in the message format to have an information about the final recipient. This means that all faxes received by modem wouldn't be anonymous. However, this useful feature isn't implemented at present time.)

The Personal Folders->Dispatch   Box in CTFax Manager is a list of received 'anonymous' faxes. Every time when a user with the 'Dispatch faxes' right selects Dispatch Box , CTFax Manager connects to the CTFax Server and asks for a list of received anonymous faxes. If it finds something a dialog box with an informative message will appear.

User with 'Dispatch faxes' permission can then take a look into the fax image (usually s/he'll need to view only the first (cover) page, where usually resides information for whom is that fax destined) and,   now when s/he knows to whom is the fax destined, s/he can dispatch the fax to that user.

To make it clear, we will describe the whole procedure of receiving a fax:
*Server puts a newly received fax   into the **receiving queue** where all received faxes reside until a user with dispatching rights   picks up a list of anonymous faxes. When the dispatcher (user with 'Dispatch faxes' rights) gets an anonymous faxes list, the anonymous faxes are transferred to the dispatcher's client computer, where (s)he activates the 'Dispatch' command and writes, in a dialog box, a fax **recipient user name**. Dispatch function then returns fax to the server, which puts it in its receiving queue (but now this fax is no longer anonymous, now it has a specific destination).*

*Let us assume that the fax was for a user with user name 'jsmith'. When the user 'jsmith' next time starts his CTFax Manager and selects '**Input Box**', in order to check newly received   faxes, he will receive from the server all faxes destined to him. The faxes are transferred to his computer and deleted from the server's queue (server only keeps track of all sent/received faxes and not the faxes themselves).*
*The user can then or at a later time,   obtain a list (**journal**) containing information   about   all of   his sent /received faxes.*

Viewing   Status   of   Fax   Messages

*Personal   Receiving   Queue   and   Personal   Sending   Queue   folders contain list of **user's** personal faxes received   or   waiting to be sent, respectively   with all relevant information. User can view in these lists when is his/her fax scheduled for sending, or even whether it is currently in process of sending by modem; or in case of a fax received from modem, was it received OK, or perhaps partially if some communication error had occurred; along with other information that could be useful, like number of pages etc.*

*Global   Receiving   Queue   and   Global   Sending   Queue   folders contain list of **all** faxes received   or   waiting to be sent, respectively   with all relevant information. Only the CTFax administrators have permission to view (and manipulate eventually) these lists. The format is basically the same as for personal queues.*

Viewing History of Sent/Received Faxes

The Global Journal list contains the history of all faxes in the system that have been sent or received so far. Only CTFax administrators can view this list.

The Personal Journal list contains information about the history of all faxes received or sent by a particular user.

Fax messages are not being written into the history database until they are removed from the server's sending or receiving queue.

Viewing System Log

The Event Log keeps track of all system-wide error and warning messages, as well as all events in the system. Only the CTFax administrators can view this list.

Address   Books   Management

*The **Global   Address   Book** is system-wide address book used for saving addresses (fax numbers and other relevant data) that are meaningful and useful for most LAN fax users (e.g. business partners addresses). All registered users can view the global address book and select its entries when sending faxes, but only the users with a special right are allowed to add, modify and delete book entries.*

*The **Personal   Address   Book** is local address book used for saving addresses (fax numbers and other relevant data) that are meaningful and useful for user (e.g. friends, business partners addresses, ... etc). The user can add, edit and delete entries to/from his personal address book at will.*

Modem   Sharing

The modem *can be shared between different applications by marking it as 'Send' in the 'Send/Receive Mode' part of the 'Modem Configuration' dialog box .*
Once selected as ***'Send only*** *' it is not initialized, so now other applications can use it.*

When user later on decides to send fax, the modem will be initialized before sending process takes place, if it is not already in use by another application.

System   Administration

<u>User Management</u>
<u>Port   and   Modem   Configuring</u>
<u>Address   Books   Management</u>

How to add a new user ?

To add new users into CTFax Server database   you have to select 'Registered Users',   under 'Fax Servers'->"Your_FaxServer_Name",   and then either click the right mouse button   or use the User sub-menu to select the 'Add' command. Then you can type in a dialog box the user name, his/her full name, description, and most important of all, you can grant the user special permissions (rights).

Please note: only users with CTFax 'Administration' right can add new users (as well as remove them or modify their data).

User   rights
In the 'Add User' dialog box you can grant to user the following rights:
>   *Global Address Book Change;*
>   *Dispatch faxes;*
>   *Administration.*

User with 'Global Address Book Change' permission can read/write/modify global address book (which resides on the server computer),   all others can only read the global address book (but they can manage their personal address books residing on their local computers). Global address book should contain addresses of interest for the company as a whole (business partners, etc.).

User with 'Dispatch faxes' permission can dispatch anonymous faxes.
When a new fax is received by modem, the recipient is usually unknown (that's while they are called anonymous).
User who has 'Dispatch faxes' rights can obtain anonymous faxes from the server, take a look into the fax image and, after deciding for whom the fax is designated, dispatch that fax to this user.

User with 'Administration' permission can add and delete users, modify their rights in the system and   read/write/modify port and modem configurations.
'Administrator' (user with CTFax 'Administration' right) can manage global receiving/sending queue and global journal lists including right to delete (abort) any fax request, while ordinary user can manage only his/her request(s).
'Administrator' can see server's log where he can find useful information about server errors and warnings, and all events in the system.

How to add a new modem ?

Users with CTFax 'Administration' permission can read/write/modify port and modem configurations using 'CTFax Manager' application.
To **configure port(s)** and **modem(s)** on CTFax Server you have to select '**Modems**', under 'Fax Servers'->"Your_FaxServer_Name", and then either click the right mouse button or use the **Modem** sub-menu to select a particular command (**Add**, **Copy**, **Edit**, **Delete**, ...).

In most cases, you will find that default values are working fine, otherwise you will need to change offending parameter(s).

Standard options

Some of the parameters are self explaining, while others may be rather cryptic at first sight. We will explain, in short, their meaning:

Port Name .... Serial port name (e.g. COM2);
Modem Name .... Fax modem name (e.g. 3Com, Hayes, Telebit, ...);
Configuration Enabled ... Enables/Disables this configuration profile;
Port Data Rate .... Serial port data rate determines character speed
                                    between PC and modem (e.g. 38400);
Fax Modem Data Rate ... Fax Modem Data Rate determines speed between
                                    two fax modems (e.g. 14400);
Send/Receive Mode .... Determines whether this line will be used for
                                    sending faxes only, receiving only or
                                    both (sending and receiving);
Rings Before Answer ..... Defines number of rings before answering a phone
                                    call on fax reception
Pulse/Tone Dial .... Pulse (rotary) or tone (MFC) dialing when sending
                                    faxes by modem;
Dial Prefix .... The number needed to reach an outside line when
                                    sending faxes by modem, such as 9, or 7,. Do not
                                    enter an area code in this field. Use a comma after
                                    each numeric code, such as 9,. The comma
                                    produces a pause so that your phone system has a
                                    chance to respond after the previous input.
Flow Control .... The method of regulating the flow of information
                                    between your PC and modem.
                                    HW(RTS/CTS) flow control is the most preferable
                                    choice.

Note: You should always use flow control. If your modem doesn't react as it should and/or you get a message from the system that your modem is configured without flow control, find specific command in your modem user's guide and write it in the
'**Additional Init String'** field (**Advanced options**).
Eg. AT S58=2 S68=255 defines HW (RTS/CTS) flow control for Telebit World Blazer modem.
Other modems may have different init strings (e.g. AT &K3).

Refer to your modem user's guide for the particular command, if the default one doesn't work.

Advanced options

Speaker Volume .... *You can choose between (Low, Medium and High);*
Speaker On/Off .... *Turns speaker On, Off, On Until Carrier, ... etc.;*
Disable Call Waiting String ... *If your fax and phone line share the same number,   and if the phone line has* **Call Waiting***, then   incoming calls can interrupt the fax transmission. Most phone systems allow you to   disable call waiting by dialing either 1170 or *70 before you make a call. By entering   this code in '****Disable Call Waiting String****'   field, you ensure that fax transmissions are not interrupted by call waiting. You can disable call   waiting   for outgoing faxes only.*
Class2DataRateBitOrder .... *'****Standard****'   behavior for   class2 fax modems is to reverse data bit order when receiving faxes. If it is not case with your modem, you can choose a different setting.*
Additional Init String .... *You can put here a number of modem commands specific for your modem*
type, and
they will be executed after the
standard modem
initialization.