

D A N E L

E L E C T R O N I C

Solutions d'impression informatique

MF Server Manual

Version 5.2

Danel Electronic
8, boulevard de la République
92514 Boulogne Cedex
France
Tél. : +33.(0).1.46.10.43.20
Fax : +33.(0).1.46.10.43.21
Email : [**electronic@danel.fr**](mailto:electronic@danel.fr)
Internet : [**www.danel-elec.com**](http://www.danel-elec.com)



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Introduction

This manual aims at providing the user with information on how to install, run and integrate the MF Server software into your print system.

This manual consists of 4 chapters:

- An MF Server presentation, which provides general information on its architecture and functionalities within the Windows print manager.
- A Reference chapter, which details all MF Server options and functionalities.
- An Installing / Uninstalling / Updating chapter, which informs you on how to install and deploy MF Server.
- A glossary defining the key terms used in this manual.

1 MF Server presentation

1.1 Overview

MF Server is a software, which aims at improving the print management in a Windows environment. Running on a Windows NT print server, it enables to add many functionalities to the standard spooler and to control all printers running on this server.

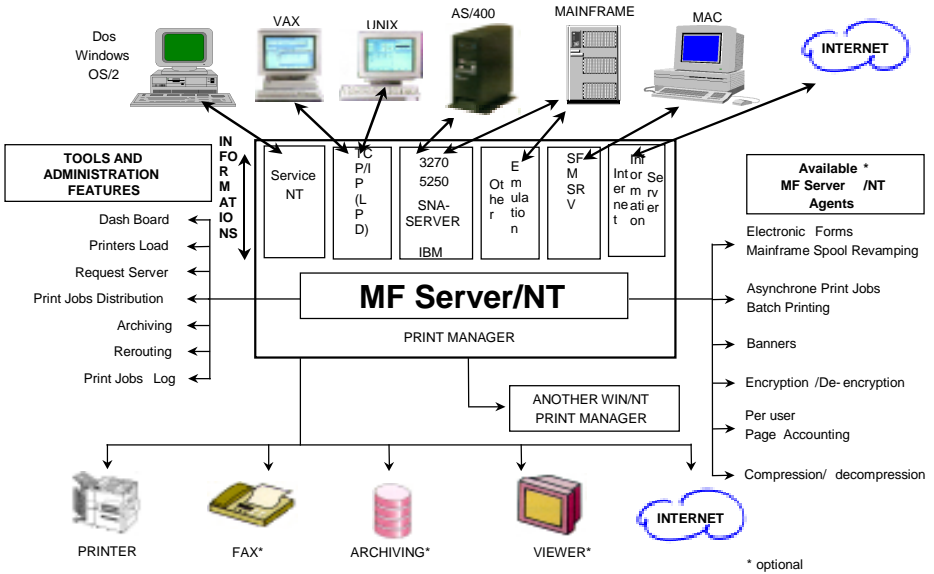
MF Server enables you to:

- Centrally control all printings.
- Simplify the use of printers.
- Integrate and automatically use all new printers.
- Be totally independent from printers and networks.
- Visually follow up the printing operation.
- Obtain totally transparent applications.
- Add functionalities such as automatic archiving, print distribution, job redirection and transfer between printers, print resumption, and a WYSIWYG view of printed documents¹.
- Get statistics on all printing operations.

MF Server is an open software based on a flexible internal structure, which can be adapted according to your needs (new profiles, agents...).

¹ Only for PCL and PS printed documents.

1.2 Graphical outline of the MF Server architecture



1.3 Integrating MF Server into the Windows NT print manager

MF Server allows to process print flows and to add functionalities to the Windows NT print manager. MF Server is based onto a print processor called «Mega». Each print job directed to a printer, which uses this processor, is automatically taken into account by MF Server, i.e. without any external interference. The MF server interface allows you to view the print jobs and to configure the various operations to be performed on print flows, i.e. to configure the various «*print processes*».

After having taken into account the print job MF Server analyzes its characteristics in order to determine which print process to apply. The title of the document reflects the course of the task (refer to part 2.6.2. for further information on a document title).

1.4 Print strategy

MF Server can be configured so as to meet a company's printing needs. When installing MF Server, a « mega » logical printer is set up, which allows you to implement two types of strategies.

1.4.1 Concentration

This strategy allows you to concentrate every call to MF Server on only one "Mega" logical printer. Thus the operations performed as well as the applications used are totally transparent. You can manage various documents as well as various types of documents. To set up this strategy you must configure your MF Server logical printer, and share it on the print server.

1.4.2 Distribution

This strategy allows you to dedicate a logical printer to one or more processing on the print flow. The administrator uses this logical printer as a model to define other logical printers. This strategy simplifies the MF Server configuration and allows you to handle "parallel" print flows. Therefore MF Server handles in the meantime each print flow on each printer running via MF Server ("multitask" Windows NT concept).

2 Reference chapter

2.1 Print process

2.1.1 Defining a print process

A print process is any processing on a print flow, determined according to the job characteristics. A process consists of two ordered lists. The “Profiles” list determines the conditions, in which this process is carried out. The “Agents” list defines the operations, which are to be performed on the print flow. Each process is defined by a name and a location. A “*DEFAULT*” process is used if no other process is eligible.

2.1.2 Configuring a print process

You have to define the profiles for which a process is performed, and the agents which handle the print flow. The “*Print process*” window allows you to configure a process. A contextual menu informs you of the various operations which can be carried out on the processes. MF Server performs the processes in the order displayed in the left part of the window. You can modify a process location by a « drag and drop » in the appropriate part of the window.

2.2 Profiles

2.2.1 Description

A job is a document and the processing characteristics related to this document. A profile is a conditional expression, which takes either the true or false value according to the document characteristics (cf. glossary). Each profile is a list comprising specific elements.

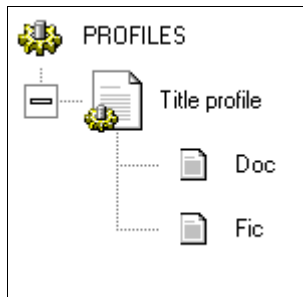
2.2.2 Available profiles

2.2.2.1 Title profile

True if the document title starts with one of the strings defined in this profile list.

Note: MF Server is case-sensitive.

Example:

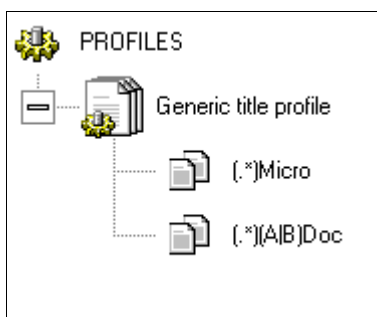


This profile is true if the document title starts with « Doc » or with « Fic ».

2.2.2.2 Generic title profile

True if the document title corresponds to one of the expressions defined in this profile list. These expressions include generic characters. The table below presents these characters as well as possible associations.

Example :



This profile is true if the document title is formatted like the generic title « CBA Micro » or « CBADoc ».

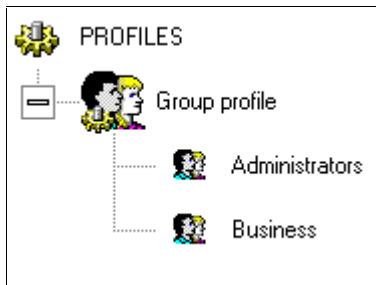
Character	Description
^	Beginning of the string. The expression "^A" matches an 'A' only at the beginning of the string.
^	The caret (^) immediately following the left-bracket ([]) has a different meaning. It is used to exclude the characters within brackets from matching the target string. The expression "[^0-9]" indicates that the target character should not be a digit.
\$	The dollar sign (\$) matches the end of the string. The expression "abc\$" matches the sub-string "abc" only if it is at the end of the string.
	The alternation character () allows either expression on its sides to match the target string. The expression "a b" matches 'a' as well as 'b'.
.	The dot (.) matches any character.
*	The asterisk (*) indicates that the character to the left of the asterisk in the expression should match 0 or more times.
+	The plus (+) is similar to the asterisk but at least one character to the left of the + in the expression should match.
?	The question mark (?) matches the character to its left 0 or 1 time.
()	The parenthesis affects the order of pattern evaluation and also serves as a tagged expression that can be used when replacing the matched sub-string with another expression.
[]	Brackets ([and]) enclosing a set of characters indicate that any of the enclosed characters may match the target character.

2.2.2.3 Group profile

True if the user (or owner of the document) having initiated the print belongs to one of the local groups specified in this profile list.

Note: Under Windows NT a local group can include a global group, which can contain users of other groups.

Example :

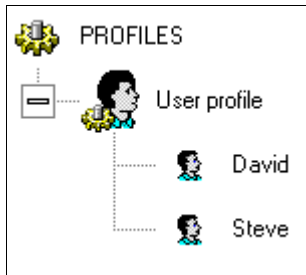


This profile is true if the user (or owner of the document) belongs either to the « Administrators » or to the « Business » group.

2.2.2.4 User profile

True if the user (or owner of the document) having initiated the print corresponds to one of the users specified in this profile list.

Example :



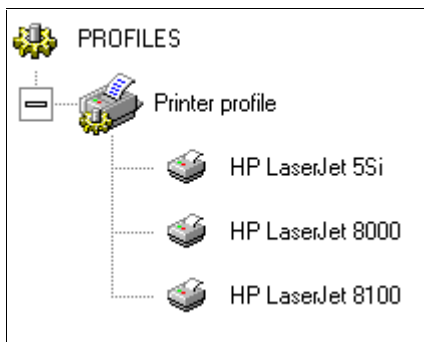
This profile is true if the user (or owner of the document) is « David » or « Steve ».

2.2.2.5 Printer profile

True if the printer on which the document was sent corresponds to a printer specified in this profile list.

Note: The printers selected in the « *Printer* » profile must be running via the « *Mega* » print processor. Otherwise MF Server cannot analyze the document characteristics and thus determine the printer on which to send the document.

Example :

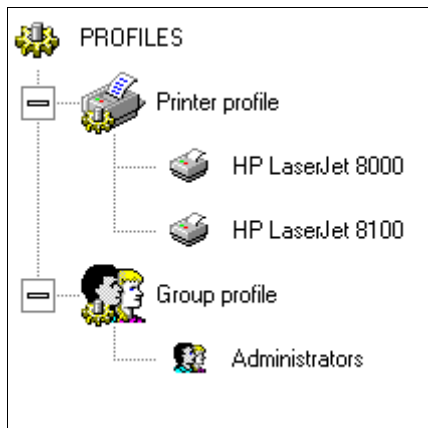


This profile is true if the printer on which the document is sent is either the printer « HP LaserJet 5Si », « HP LaserJet 8000 » or « HP LaserJet 8100 ».

2.2.3 Profile combination

The profiles can be combined like logical expressions bound by a logical operator «AND». All the elements within one profile are bound by a logical operator «OR».

Example :



The process corresponding to this profile combination is eligible if the following conditions on the document characteristics are true, i.e. if the document is sent either on the printer « HP LaserJet 8000 » OR « HP LaserJet 8100 », AND the document user (or owner) belongs to the « Administrators » group defined under Windows NT.

The limits of these combinations are the exclusive complementarity of these profiles. Let us assume a process has a “Group” and a “User” profile. If the user of the process does not belong to the group the process will never be eligible.

A process without a defined profile is always elected when evaluated.

2.3 Agents

2.3.1 Description

An agent is a process element, which handles the print flow. For each process, an ordered list of agents is defined and corresponds to all processing performed on the print flow.

2.3.2 Available agents

2.3.2.1 ASCII agent

The « ASCII » agent allows you to divide into several parts a print flow as an ASCII file. To do so you must parameterize the cutting mode. PCL commands are added to the resulting print flow so that it is ready for printing. The cutting parameters are as follows:

- *Cutting mode:*
 - * Line cutting: The ASCII agent divides the print flow by **n** number of lines specified in the *cutter* parameter. Thus a new page is created every **n** line/lines.
 - * Sequence cutting: The ASCII agent divides the printing flow when it reaches a sequence specified in the *cutter* parameter. This sequence can include the carriage return via the sequence « `\r\n` ».

Example: « `Jump page\r\n` » or « `PAGE` »

 - * Form feed cutting: The ASCII agent formats the print flow so as to make it ready for printing.
- The *cutter* parameter represents the number of lines or the sequence according to what is specified in the cutting mode (parameter used only for the first two cutting modes).

2.3.2.2 Backup agent

The « Backup » agent allows you to save the print flow for a given duration. MF Server automatically removes the files whose saving time has expired. The relevant parameters for this agent are as follows:

- *The number of archiving days*, starting from the date on which it is archived.
- *The archiving directory*, if it is different from the default directory (optional parameter).
- *Archiving method*, which allows to record archives with a single file name compared to the archives existing in the directory, or with a file name equivalent to the document title.

Note: If the directory specifically defined for one agent is not valid, the default directory defined in “Setup\Settings\Default” Backup directory is used.

If this directory is not valid, then the MF server directory « \Public\Archives » is used.

Archiving is possible only on local discs, as MF server is active even if the network layers are not active.

2.3.2.3 *Execute agent*

The «Execute» agent allows you to call a processing executable on a print flow, i.e. you can launch a data processing program via this agent. Batch files as well as files of script interpretation can be performed.

Note: This agent works via MF Server, as you can process print flows without having to create a specific agent. The parameters for this agent are as follows:

- The complete path and the executable parameters, including at least the two MF Server macros of data input «INPUT_SPOOL_FILE_NAME» and of data output «OUTPUT_SPOOL_FILE_NAME» (refer to the glossary).

Example:

```
« C:\Program Files\MegaForm\megaprt Form.mff  
_INPUT_SPOOL_FILE_NAME_ -  
o_OUTPUT_SPOOL_FILE_NAME_ »
```

2.3.2.4 FAX agent

The «FAX» agent allows you to send the print flow onto an Imecom fax Server. The parameters are as follows:

- The *fax number* to which the document must be emitted. If this number is undefined as a parameter, it has to be defined in the routing file or in the corresponding MF Server macro.
- The *routing file name*, which is the name and path of the routing file to be used. If this parameter is not defined, MF Server uses a default routing file. MF Server macros can be used in the routing file.

Note: Use with MegaForm

When using MegaForm you can extract one or more recipient fax numbers from the print flow. These numbers are transferred in an existing routing file. If no routing file exists it is created via the MF Server macros.

Example of MegaForm field:

« *WRITEFILE([\$DATAFILE]& ".FAX",SPOOLTEXT(1,1,8,1))* »

2.3.2.5 *FTP agent*

Agent «*FTP*» enables to send the print flow or a «*message file*» onto an *ftp* server via «*ftp*» commands. You can find below a description of the parameters to use:

- The name of the host *ftp server*.
- The *User* account giving access to the *ftp* server.
- The user *Password* validating the user account.
- The *Executing time* or latest deadline, at which the *ftp* command file is executed.
- *Send the spool*: this parameter allows you to send the print flow as a file to the *ftp* server. The name of the generated file is «*SPLxxxxx.SPL*» where *xxxxx* represents the job number.
- *Message*: this parameter corresponds to the name and path of the «*message file*» to address to the *ftp* server. This file can contain the macros used by MF Server.

2.3.2.6 *MegaForm agent*

The « MegaForm » agent enables to call the MegaForm engine (MegaPrint). This agent does not require the « Print » agent in order to send the final document on output printers. The parameters are partly identical to those of the « Print » agent, additional parameters being specific to the MegaPrint service (refer to the MegaPrint documentation).

Parameters:

- The *list of output printers* (cf. « Print » agent).
- The *choice strategy of printers* (cf. « Print » agent).
- The *form name* to be used, i.e. the name and complete path of the form compiled under MegaForm to be applied to the data to be merged.
- *Preprocessing*: this parameter allows you to perform a particular processing if the data comes from an AS400. This processing consists in removing the first character of the print flow, then in replacing the sequence « Carriage return » - « Form feed » by the sequence « Form feed » - « Carriage return » - « Line feed ».
- *Preloaded form*: this MegaPrint parameter indicates that the form to be used for merger is preloaded on the printer.
- The *macro number*: it indicates the first macro number to use.
- The *printer model*: here you can change the printer model to use. This model is defined when creating the form.
- The *character code*: it allows to indicate the table of characters in which the data are defined: Windows ANSI, PC850 or Roman 8.

- *Complementary options*: this parameter allows to add to the MegaPrint command parameters, which are undefined in the options of the « MegaForm » agent.
- *The mask of the output printer name*: you can extract the name of the initial document title from the output printer. This mask enables to define the position of the printer name in the title. It uses the generic characters of the generic profile (cf. « Generic title profile »).

Example: If the printer name lies between two characters #, the sequence to be introduced is « .(.*)#.* ». The « (. *) » sequence defines the output printer.*

2.3.2.7 *Pause agent*

With the « Pause » agent you can suspend the course of a document process. You can manually resume the process by selecting the document on the printer, then by selecting the « Resume » command in the contextual menu.

Note: To resume a process via MF Server, the printer must be known as an « MF Server » printer, i.e. this printer must run on the « Mega » print processor. A yellow flash on a printer indicates that this printer runs on MF Server.



2.3.2.8 *Print agent*

The « Print » agent enables to direct the print flows onto a physical printer.

Parameters:

- The *ordered list of output printers* managed locally by the print server.
- The *choice strategy for printers*, corresponding to the method used to choose the output printer within the ordered list.
 - ✗ First printer available: MF Server chooses the first available printer (unsuspended on the print server) in the list.
 - ✗ Printer of minimal load: MF Server chooses the printer from the list of printers having the minimal workload.
 - ✗ First defined printer: MF Server chooses the first defined printer of the list.
 - ✗ Parallel printing: MF Server directs the print flow to all printers which are not suspended on the server and which are defined in the ordered list.

When using the TCP/IP protocol, MF Server allows you to perform a response test on a printer (ping) so as to know the state of the printer. Here you must declare the printer in the printer table, by selecting « Printing », then « Printers » in the « Configure » menu. Then, define your printer by documenting the fields « Printer », « TCP/IP address » and « Waiting time » (5 seconds by default), then check « TCP/IP test activity ». If the « Waiting time » test is negative, i.e. if the time has expired and the MF Server did not get any answer from the printer the printer is regarded as non-available.

- *The number of copies* of the job to be transmitted.
- *The banner management* allowing to automatically insert a banner before any printing. This page can contain:
 - ✖ The name of the user having initiated the job
 - ✖ The document name, etc.

You can personalize this banner by adapting the file « Banner.ps » or « Banner.pcl ». MF Server uses the file « Banner.prn », which can contain MF Server macros.

2.4 MF Server functionalities

2.4.1 Backup

2.4.1.1 *Installing*

MF Server allows to automatically archive all printed documents via the « *Backup* » agent. If the « *Backup* » agent is executed before MegaForm is called MF Server archives the print flow as a **.txt** file. If it is executed after calling MegaForm, the print flow is archived as a **.pcl** file.

2.4.1.2 *Consulting archives*

Via the « Archives » window, you can consult the archives list. This list provides various types of archives information, i.e. the characteristics of the printed document as well as the archiving duration, the location of each archive and the type of data: “PS” for PostScript, “PCL” for HP PCL, otherwise “???” for other formats. You can call a PostScript or PCL viewer via the contextual menu. **Restriction:** The viewer differs if the extension of the file is “PS” or “PCL”.

2.4.1.3 *Resuming archives*

With MF Server you can resume archives in two ways, either by resuming a print process, or by sending the process on a physical printer. In the first case, you can re-start processing the selected files as if they were sent to MF Server by an external system; in the second case you can send the archived print flows directly on a physical printer.

2.4.1.4 Resuming MegaForm archives

MF Server allows you to resume archived data initially intended for MegaPrint. Via the contextual menu you can access a window, which allows you to perform an archive recovery per page. The parameters defined for the initial process are re-used if this one is found, and if not, default parameters are used.

2.4.2 Print events viewer

2.4.2.1 Viewer

The « Events viewer » window displays all print events audited by Windows NT such as « Events viewer ». With this type of information statistics can be provided on the various printing jobs such as the number of pages printed by a user. This information must be audited by your system in order to be available (see your Windows NT administrator).

2.4.2.2 Filtering events

You can select some records according to various criteria such as a period, a field (e.g. « User », « Machine »), etc. via the « Events diary », the « Archives » and the « Alarms » windows.

Note: The « LIKE » field allows you to use generic character strings to evaluate a text field. The following table shows how to use « LIKE » to evaluate expressions according to various models.

<i>Occurrence type</i>	<i>Model</i>	<i>Occurrence</i>	<i>No occurrence</i>
Several characters	a*a	aa, aBa, aBBBa	aBC
	* ab*	abc, AABBB, Xab	AZb, bac
Special character	a[*]a	A*a	aaa
Several characters	ab*	abcdefg, abc	cab, aab
Insulated character	a?a	aaa, a3a, aBa	aBBBa
Insulated number	a#a	a0a, a1a, a2a	aaa, a10a
Character interval	[a-z]	f, p, j	2, &
Out of interval	[!a-z]	9, &, %	b, a
Other number	[!0-9]	A, a, &, ~	0, 1, 9
Combination	a[!b-m]#	An9, az0, a99	Abc, aj0

2.4.3 Managing users

By managing users you can define access rights to the interface menus. Thus an administrator can configure workstations so that only a part of the functionalities are accessible. The maximum number of users is indicated on the licence.

2.4.4 Managing print queues

2.4.4.1 *Printing among printers*

MF Server allows you to transfer documents from one printer to another by a simple « Copy/Paste » operation. All possible operations are « Copy », « Paste », “Cut”, “Suspend” or “Resume”.

To copy documents from a printer to another, you must open the printer, copy or cut the desired document, then open the other printer and paste the document in the desired location (the document is inserted after the highlighted printer, and if no document is selected, it is inserted at the beginning of the list).

Caution: the “Resume” option does not have the same function under Windows NT as under MF Server. With the print processor of MF Server, you can resume the print process if it was suspended following a «Pause» agent or following an error when executing an agent.

2.4.4.2 Sorting documents

For each print queue, MF Server allows to sort documents according to their characteristics: title, user, machine, etc. You must view the document details, then click on the corresponding column.

You can free suspended documents according to the sorting order. Indeed, MF Server frees the process of all selected documents in the defined order.

Caution: this sorting is only «visual», it does not allow to physically sort documents.

2.4.4.3 Sorting documents function

MF Server allows to sort suspended documents according to their title. The first element to define is a sequence to detect, and a number of characters, on which the sorting is to be performed.

When a printer is open, you can choose this option in the «Sort» menu. MF Server offers to enter the beginning of the sequence to be detected, for example the sequence «CP=». Then you enter the total string to be taken into account, for example «8». MF Server detects in the title the sequence «CP=». It then extracts from the title the first «8» characters starting with the beginning sequence. MF Server creates a “<Sort>” column containing the various extracted sequences, i.e. the sequences whose format is «CP=xxxxx», x representing an unspecified character. Clicking on the «Sort» column allows to sort documents alternatively by ascending then descending order.

2.5 Using MF Server

2.5.1 Managing warnings and errors

During the printing process, an alarm is generated for each warning or error. When a warning occurs the colour of the state bar changes into orange, with an error, into red. You have a debug execution file « m_spool.txt », which is located at the root of the execution disc. The « Alarms » window presents each alarm generated by MF Server. The various fields of this window are the type, the source and the description of each alarm. It can be either a « Warning » or an « Error ». In the first case, the system encountered a difficulty such as the deletion of a non-existing job, so here you do not have to cancel the process or to close the interface; in the second case, the system encountered a major difficulty requiring to cancel the process or to close the interface.

2.5.2 Setting up print processes

The « Print process » window allows you to configure print processes and to set up a relation between processes by defining the profiles and the agents for each process (cf. 2.1, 2.2, 2.3).

2.5.3 Printing a file

Via the « File printing » window MF Server allows to send a file to a printer by defining the title of the document, the type of data and the number of copies. For example this window can be used to test a print process.

2.5.4 Setting up prints

The « Printer » window allows you to define IP addresses, using the TCP protocol, for each printer defined locally on the print server. Via the « Activity test » option you can indicate to MF Server to perform a test on a printer in order to determine if this printer is available or not. The « MegaForm » and « Print » agents can perform this test.

2.5.5 Database information

The « Information » window allows you to get information on the size of the various tables used by MF Server. Moreover, via the « Export » menu you can export one or more tables onto a file, whose format is compatible with the format used by a spreadsheet.

2.5.6 Setting up MF Server

2.5.6.1 *Directories tab*

This tab allows you to provide the MF Server with information on the various directories used.

- ✱ The « Default archives directory » is the directory in which MF Server records archives if the output directory of a « Backup » agent is undefined or incorrect. With « Archiving with a short title » MF Server records the initial title rather than the title modified by MF Server in the archives list.
- ✱ In « MegaForm directory » you can define the directory containing the MegaPrint engine of MegaForm, i.e. the « megaprt.exe » file.

2.5.6.2 Service tab

With this tab you can define the schedule, at which MF Server removes archives, events as well as obsolete alarms. It also defines the time, during which print events and alarms are saved.

The MF Server database is automatically compacted. However you can also compact it manually via the corresponding button.

MF Server uses the planning facility of the server so as to carry out this task outside printing hours.

2.5.6.3 Interface tab

This tab allows you to define the time at which the information related to printers as well as MF Server alarms are refreshed. When the time to execute processes has expired and the task has still not been carried out, MF Server considers the task as «without answer».

The MF Server interface can be provided in French or English.

2.5.6.4 Update tab

With this tab you can update MF Server by recovering the old version of the database, if this one is already saved (Cf. «Software update»).

2.5.7 MF Server help

2.5.7.1 Online help

MF Server provides an online help via a «PDF» file (which you can access via the menu or by pressing the F1 key). You can install Acrobat Reader to consult this file via the installation CD.

2.5.7.2 *MF Server genius*

MF Server genius is based on the « Microsoft agent » technology, and provides information in a user-friendly way. The genius is displayed via the « Help/Genius » menu or by pressing the F2 key.

2.6 Technical aspects of MF Server

2.6.1 MF Server requests

The print server comprises the request server of MF Server. This server allows you to be informed on the printers state, to re-direct jobs among printers, to resume archives, etc. This communication protocol is represented by an interface, which displays the users requests and the print manager of Windows NT. This request server uses a Windows NT service named « MEGA_REQ ».

2.6.2 Modifying a job title

MF Server uses a document title to display and store the processing in progress on the document.

MF Server adds to the title a “ title separator” called « *MEGA* », which separates the initial title from the information related to the process. Then it adds the process name as well as the ordered list of agents separated by an « Agent separator » (by default ‘%’), including a status indicator by agent.

Example: Let us assume « Title1 » is the initial title of a document. After MF Server analyzed the document characteristics, the title becomes:

« Title1 MEGA %Process : Process1% %Backup(_)% %MegaForm(_)% »

MF Server adds a title separator, « MEGA », and indicates that the print flow is handled according to the characteristics of print process « Process1 », i.e. by the « backup » and « MegaForm » agents. A status indicator “_” follows each agent. These indicators are as follows:

- « (_) »: *the agent is not yet handled.*
- « (X) »: *the agent is in progress.*
- « (1) »: *MF Server detected an error while executing the agent. The job is suspended and an alarm is generated.*
- « (0) »: *the agent did not encounter any difficulty.*

2.6.3 Adapting a printer to MF Server

A local printer can be integrated in MF Server, i.e. all jobs sent on this printer are analysed and handled by MF Server. To do so, the following properties must be set up in the Printer Settings of Windows NT. Here you need to display the properties of the printer you want to use with MF Server.

- Click on « General », then on « Print processor », select « Mega ».
- In the « Planning » tab, check the same elements as in the « mega » printer.
- Share the printer so as to make it accessible to all users.

You can perform all these operations via the MF Server interface. Double-click on the printer that must be modified, then in the menu « Printer » select « MF Server management ». This allows you to automatically configure the printer properties.

Note: If you use the MF Server to carry out this operation you should first share the printer, as MF Server does not automatically share it.

2.6.4 Resources used by MF Server

MF Server runs only by request of the spooler. However if several printers are configured as working via MF Server, the processings are not carried out sequentially but in parallel on each printer.

2.6.5 Troubleshootings

Consult the « Alarms » window to correct the anomaly. If this anomaly re-occurs, you can send a fax via the fax form available in the menu « Help » then « Fax support ».

2.6.6 Software limits

The resources of the host machine and its operating system limit MF Server. All information is contained in an « Access » database, and only the size of the disc containing this base limits the software. Moreover, if several printers work via MF Server, each printer requests resources.

3 Installing / Uninstalling / Updating

3.1 Required hardware and software configuration

- Operating system: Windows NT 4 Server or WorkStation as well as the « Service Pack 3 ».
- Hardware requirements: A local disk having at least 100 available Mo (for a simple configuration), a processor such as « Pentium 166 MHz » with 64Mo of RAM (for a simple configuration).
- At least one local printer must be installed (for the server module) on the machine.
- The installation must be performed under an account, whose owner has the maximum rights: to create printers, to create and modify directories and files, to create input in the registry base, to launch and stop Windows NT services, to share resources.
- An administrator knowing Windows NT must carry out the installation.
- All services depending on the « Spooler » must be stopped before the installation, and must be re-launched at the end of the installation (for the Server module).

3.2 Installing the print server and the workstations

Before any installation, all applications must be closed and, according to the existing system requirements, the machine must be restarted.

3.2.1 Installing Microsoft Data Access Component (DAC)

This component is essential to install MF Server. Launch under the root disk, DAC\French\mdac_typ.exe.

3.2.2 Installing MF Server

When installing the MegaForm solutions via « Installation of MegaForm Server », you are offered with two choices: « Installation of the server module » or « Installation of the client module ». When installing the server module you install MF Server on the print server under Windows NT 4 Server or WorkStation, whereas installing the client module allows to install the MF Server interface under Windows NT 4 Server or WorkStation, Windows 95 or 98.

3.2.2.1 *Installing the Server module*

The installation procedure of this module lasts approximately two minutes. The installation automatically creates two printers, a « mega » printer (running on MF Server) and a named printer « mega_util » used for temporary transfers between printers.

Caution: this last printer does not have to be removed. Moreover MF Server installs a request service « MEGA_REQ » used by the interface.

3.2.2.2 *Installing the Client module*

The installation of the client module is optional. It allows you to install the MF Server interface to visualize the various printers on the print server. Before any installation, the server module directory for MF Server must be shared on the print server and accessible from the workstation via a network disk.

3.3 Uninstalling

To uninstall MF Server, you must use option « Add/Remove programs » in the control panel. The DAC module remains even after MF Server is uninstalled. The uninstalling procedure does not remove the created printers.

3.4 Software update

To update the software, you must first save the MF Server database « mega.mdb » located in the directory « <MF Server directory>\Admin\Setup ». Then write down the validation key located in the « Registration » window of the « Help » menu.

Caution: All printers managed by MF Server must be purged.

Then uninstall the first version, install the new version and enter the validation key. Under MF Server, launch the database recovery via « Settings » menu, « Update » tab.

4 Glossary

Agent

An agent is a software element, which operates a processing on the print flow.

Initial printer

The initial printer is the printer, to which the user initially directed the print job.

Job

A job is a set of information transmitted to the print server so as to print a document. It is made up of:

- A data file (.spl file under Windows NT).
- A description of the transmitted data including its title, the data type... (.shd file under Windows NT).

The job does not only consist of data: it is made up of source code containing both the data and the commands enabling to handle it. The client application (with the graphic engine and the printer driver) creates printing. Thus, Microsoft Word 7.0 combines objects of data such as text, fonts and graphs with information on the printer driver to create the source code of a document.

MF Server macros

MF Server can automatically substitute character strings to their value at the object time.

<i>MF Server macro name</i>	<i>Subtitute chain</i>
<u>_INPUT_SPOOL_ FILE_NAME_</u>	Spool file name before an agent processing
<u>_OUTPUT_SPOOL_ FILE_NAME_</u>	Spool file name after an agent processing
<u>_USER_NAME_</u>	Name of the job user
<u>_JOB_NAME_</u>	Job title
<u>_COMPUTER_NAME</u>	Name of the machine which emitted the job
<u>_INPUT_PRINTER_NAME_</u>	Name of the printer where the job is defined

Profile

A profile is a set of characteristics, which distinguish a job from another. The profile is based on information coming from the description of the job, of the file contents, a state system (example: date and hour).

Print process

A print process is the definition of all profiles, which determine the choice of the print process and of all agents, which determine the processing to apply to the print flow. Each printing process is distinguished by a name.

Print processor

A print processor works in connection with a printer driver to remove spools when they are printed. The print processor is the component in charge of the necessary modifications to perform on a job according to the type of data.

Spooler

The spooler is a set of dynamic libraries of links (DLL), which receives, handles, plans and distributes the job.