DOS.PRI Registry Settings

1. Introduction

This document describes the various Global registry settings under the following registry key:

HKEY_LOCAL_MACHINE\Software\Global\Client\Printers\DOS.PRI

Although some of these settings are documented elsewhere in the Global Operating Manual (Windows) V8.1 Manual, various global*nn*.doc Release Notes and IN*nnn*.doc Technical Notes, this note only refers to 3 other documents:

GOMW81	Global Operating Manual (Windows) V8.1 (man81gsmwindows.doc)
IN181	Removing Config. File Technical Note (in181-removingconfigfile.doc)
CFM81	Global Configurator Manual V8.1 (man81configurator.doc)

Unless otherwise stated, a change to a registry setting only becomes effective when the Global Client (GLOBAL.EXE) is reloaded.

1.1 Registry Hierarchy

Some of the settings described in this document appear under several keys in the Global section of the registry. For example:

HKEY_LOCAL_MACHINE\Software\Global\Client\Printers\+PageDepth
HKEY_LOCAL_MACHINE\Software\Global\Client\Printers\DOS.PRI\+PageDepth
HKEY_LOCAL_MACHINE\Software\Global\Client\Printers\DOS.PRI\500\+PageDepth

The **printer-number** specific setting immediately under the "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599) overrides the **printer-class** specific setting immediately under the "Printers\DOS.PRI" key, which in turn, overrides the **generic-printer** setting under the "Printers" key. For example, if:

..\Software\Global\Client\Printers\+PageDepth=60
..\Software\Global\Client\Printers\DOS.PRI\+PageDepth=66
..\Software\Global\Client\Printers\DOS.PRI\500\+PageDepth=70

a value of 70 will be used for printer unit 500; a value of 66 will be used for all DOS.PRI printers that do not have an equivalent "Printers\DOS.PRI\5*nn*" registry setting (a value of 60 will be used for all other classes of printers (e.g. WinPrint) that do not have "Printers*xxxxxxxx*\+PageDepth" or "Printers*xxxxxxxx*\5*nn*\+PageDepth" setting).

1.2 Table of Contents

The following registry settings are described in this document:

Note that many of the registry options available with the DOSPrint interface (see IN406) are **not** available with DOS.PRI.

2. Registry Settings under DOS.PRI

The DOS.PRI printer controller prints via a Windows printer device specified in the registry. This controller is equivalent to the DOS.PRI controller available on Global System

Manager (MS-DOS and Windows) and Global System Manager (Novell NetWare) configurations. By modifying the device name in the registry it is possible to use this controller to print to a named Windows file or to one of a sequence of files in a Windows Spool Folder.

The DOS.PRI interface is very similar to the DOSPrint controller (see IN406). Although the DOS.PRI controller does not support some of the advanced “Windows Spool Folder” options supported by DOSPrint, it **does** support a “Print Via Separate Thread” option (see section 2.13). Use of the DOS.PRI controller, with the “Print Via Separate Thread” option enabled, is strongly recommended when printing to a Windows device in a multi-user Global System Manager (Windows) configuration where use of the DOSPrint (without a “Print Via Separate Thread” option) can seriously impair performance.

2.1 +DeviceCharacteristics

This value setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is equivalent to the DEVICE CHARACTERISTICS option in the configuration file as documented in CFM81.

The printer-class specific +DeviceCharacteristics setting (if present) immediately under the "Printers\DOS.PRI" key overrides the generic-printer +DeviceCharacteristics setting (if present) immediately under the "Printers" key; and is itself overridden by any printer-number specific +DeviceCharacteristics settings under the relevant "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599).

The default value is 0.

2.2 +HardwareFormFeed

This string setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is equivalent to the HARDWARE FORMFEED option in the configuration file as documented in CFM81.

The +PageDepth option (see section 2.4) is only recognised if the +HardwareFormFeed option is disabled. If the +HardwareFormFeed option is enabled the +PageDepth setting is ignored.

The printer-class specific +HardwareFormFeed setting (if present) immediately under the "Printers\DOS.PRI" key overrides the generic-printer +HardwareFormFeed setting (if present) immediately under the "Printers" key; and is itself overridden by any printer-number specific +HardwareFormFeed settings under the relevant "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599).

The default setting is "On". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “On”.

2.3 +MaximumPageWidth

This value setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is equivalent to the MAXIMUM PAGE WIDTH option in the configuration file as documented in CFM81.

The printer-class specific +MaximumPageWidth setting (if present) immediately under the "Printers\DOS.PRI" key overrides the generic-printer +MaximumPageWidth setting (if present) immediately under the "Printers" key; and is itself overridden by any printer-number specific +MaximumPageWidth settings under the relevant "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599).

The default value is 250 (note that the default value for the MAXIMUM PAGE WIDTH configuration file option is 132).

2.4 +PageDepth

This value setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is equivalent to the PAGE DEPTH option in the configuration file as documented in CFM81.

The +PageDepth option is only recognised if the +HardwareFormFeed option (see section 2.2) is disabled. If the +HardwareFormFeed option is enabled the +PageDepth setting is ignored.

The printer-class specific +PageDepth setting (if present) immediately under the "Printers\DOS.PRI" key overrides the generic-printer +PageDepth setting (if present) immediately under the "Printers" key; and is itself overridden by any printer-number specific +PageDepth settings under the relevant "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599).

The default value is 0.

2.5 +PrinterDescription

This string setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is equivalent to the DESCRIPTION option in the configuration file as documented in CFM81.

The printer-class specific +PrinterDescription setting (if present) immediately under the "Printers\DOS.PRI" key is overridden by any printer-number specific +PrinterDescription settings under the relevant "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599). Note there is no generic-printer +PrinterDescription setting under the "Printers" key.

The default setting is "DOS.PRI Printer".

2.6 +PrinterExecFlagByte

This value setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is

equivalent to the PRINTER EXECUTIVE FLAG BYTE option in the configuration file as documented in CFM81.

The printer-class specific +PrinterExecFlagByte setting (if present) immediately under the "Printers\DOS.PRI" key overrides the generic-printer +PrinterExecFlagByte setting (if present) immediately under the "Printers" key; and is itself overridden by any printer-number specific +PrinterExecFlagByte settings under the relevant "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599).

The default value is 0xff (255).

2.7 +PrinterExecTimeout

This value setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is equivalent to the TIME-OUT IN TENS OF SECONDS option in the configuration file as documented in CFM81.

The printer-class specific +PrinterExecTimeout setting (if present) immediately under the "Printers\DOS.PRI" key overrides the generic-printer +PrinterExecTimeout setting (if present) immediately under the "Printers" key; and is itself overridden by any printer-number specific +PrinterExecTimeout settings under the relevant "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599).

The default value is 2. The value must be between 0 and 63, inclusive.

2.8 +PrinterPool

This value setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is equivalent to the bottom 4-bits of the DEVICE CHARACTERISTICS option in the configuration file as documented in CFM81.

See section 3.11 for further details.

The printer-class specific +PrinterPool setting (if present) immediately under the "Printers\DOS.PRI" key overrides the generic-printer +PrinterPool setting (if present) immediately under the "Printers" key; and is itself overridden by any printer-number specific +PrinterPool settings under the relevant "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599).

The default value is 0. The value must be between 0 and 7, inclusive.

2.9 +SpoolerControlBits

This value setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is equivalent to the SPOOLER CONTROL BITS option in the configuration file as documented in CFM81. Note that the value of the +SpoolerControlBits setting (i.e. 0, 1, 2

or 3) is shifted left by 6 bits (i.e. multiplied by 64) to form the equivalent SPOOLER CONTROL BITS value (i.e. #00, #40, #80 or #C0). This value is then combined (by a Logical OR operation) with the +PrinterExecTimeout value.

The printer-class specific +SpoolerControlBits setting (if present) immediately under the "Printers\DOS.PRI" key overrides the generic-printer +SpoolerControlBits setting (if present) immediately under the "Printers" key; and is itself overridden by any printer-number specific +SpoolerControlBits settings under the relevant "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599).

The default value is 0. The value must be between 0 and 3, inclusive.

2.10 DisableValidation

This string setting is the generic DOS.PRI equivalent of the printer-specific DisableValidation setting that is fully described in section 3.13.

The printer-class specific DisableValidation setting (if present) immediately under the "Printers\DOS.PRI" key is overridden by any printer-number specific DisableValidation settings under the relevant "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599). Note there is no generic-printer DisableValidation setting under the "Printers" key.

The default setting is "Off". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “Off”.

2.11 PolledMode

This string setting controls the effect printing has on the multi-user time-slicing scheduler within the Global Client kernel. Early versions of the Global Client (pre V3.0) completed the line-by-line print function within the same time-slice as the user performing the print operation. This had the effect of making printing via the DOS.PRI interface a higher-priority task than normal processing. For GLOBAL.EXE V3.0, and later, the situation has been reversed so that printing becomes the lowest priority task, relegated to a Poll Routine.

If PolledMode is enabled (the default), printing via the DOS.PRI interface has a lower priority than normal user operations. If PolledMode is disabled, printing via the DOS.PRI interface has a higher priority than normal user operations.

Note that it is not possible to alter the "PolledMode" setting on a per-printer basis. Either **all** DOS.PRI printers operate in Polled Mode; or **no** DOS.PRI printers operate in polled mode.

The default setting is "On". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “On”.

This setting should only be changed under exceptional circumstances.

2.12 PrintPollDivisor

This value is only recognised if the "PolledMode" option (see section 2.11) is enabled. It controls the relative priority of print operations via the DOS.PRI controller and normal user operations. A high value of the "PrintPollDivisor" setting **lowers** the priority of the DOS.PRI interface with respect to normal user operations. A low value of the "PrintPollDivisor" setting **raises** the priority of the DOS.PRI interface with respect to normal user operations. The lowest value allowed is 1.

Note that it is not possible to set the "PrintPollDivisor" value on a per-printer basis. **All** DOS.PRI printers operate with the same relative priority.

The default value is 100. The value must be between 1 and 65535, inclusive.

This setting should only be changed under exceptional circumstances.

2.13 PrintViaSeparateThread

This string setting is the generic DOS.PRI equivalent of the printer-specific PrintViaSeparateThread setting that is fully described in section 3.17.

The printer-class specific PrintViaSeparateThread setting (if present) immediately under the "Printers\DOS.PRI" key is overridden by any printer-number specific PrintViaSeparateThread settings under the relevant "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599). Note there is no generic-printer PrintViaSeparateThread setting under the "Printers" key.

The default setting is "Off". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “Off”.

3. Registry Settings under DOS.PRI\5*nn*

The settings under each individual printer key (500 to 599) only apply to a single printer.

3.1 CreateNewFile

This string setting specifies whether the print file should be re-created for each print or appended to. If the print file is recreated then the file will only contain the last Global print report. If the print file is appended, it will contain the entire accumulation of Global print reports (and will have to be deleted using a Windows command e.g. using the Delete option in Windows Explorer).

Although this option was originally only relevant to the "fixed print file" printing mode (see section 3.3.2) it has been extended (for GLOBAL.EXE V3.8, and later) to the Windows Spool Folder printing mode (see section 3.3.3). The behaviour is summarised thus:

Interface type	CreateNewFile=Off	CreateNewFile=On

Direct Device (see 3.3.1)	CreateNewFile ignored	CreateNewFile ignored
Fixed Print File (see 3.3.2)	The current print will be appended to an existing file of the same name. Global print files will accumulate in the Windows file specified by the "Name" option.	The current print will replace an existing file of the same name. The Windows file specified by the "Name" option just contains the last Global file printed.
Windows Spool Folder (see 3.3.2)	If the print file name is different for each Global print, this option has little relevance. However, if the print file name is not always unique a NOT READY ERROR will be generated if a file with the same name already exists on the Windows Spool Folder.	For GLOBAL.EXE V3.7, and earlier, this option is ignored. For GLOBAL.EXE V3.8 and later only: If the print file name is different for each Global print this option has little relevance. However, if the print file name is not always unique the current print will replace an existing file of the same name.
UNC Printer Name (see 3.3.4)	A Windows error 87 will occur if the CreateNewFile option is disabled.	The CreateNewFile option **MUST** be enabled.

The default setting is "Off". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “Off”.

3.2 LFToLFCR

This string setting, which was originally documented in GOMW81, specifies whether a Carriage Return character (#0D) should be sent before each Line Feed character (#0A).

The default setting is "Off". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “Off”.

3.3 Name

This string setting, which was originally documented in GOMW81, specifies the DOS.PRI printing mode. Four modes are possible:

Mode	Description
Direct Device (see 3.3.1)	The DOS.PRI controller outputs directly to the device specified. This mode is indicated by terminating the device name with a ":". For example, "LPT1:", "COM1:".
Fixed Print File (see 3.3.2)	The DOS.PRI controller outputs to a specific file. This

	mode is indicated by setting the device name to a valid filename. For example: "PRINT.TXT".
Windows Spool Folder (see 3.3.3)	The DOS.PRI controller outputs to a uniquely named file in the specified Windows Spool Folder. This mode is indicated by setting the device name to a valid folder name terminated by the "\". For example: "C:\GSM\SPOOL\".
UNC Printer Name (see 3.3.4)	The DOS.PRI controller can be used to print to a networked Windows printer directly by specifying the UNC name of the Windows printer. For example: \\GlobalNt1\City_Basement_Left.

The default setting is "LPT1:".

3.3.1 DOS.PRI Operating Notes (Direct Device mode)

The device specified by the "Name" setting can be any valid serial or parallel port device name. The "CreateNewFile" setting (see section 3.1) is ignored when this mode is selected. However, the "LFToLFCR" setting (see section 3.2) is recognised.

The device is always opened in "raw mode". In "raw mode" all characters are printed from Global System Manager without Windows intercepting or translating them.

Printing to a relatively slow Direct Device may cause performance problems on a multi-user configuration. If slow Direct Device printing does affect multi-user performance you are strongly recommended to enable the PrintViaSeparateThread option (see section 3.17).

3.3.2 DOS.PRI Operating Notes (Fixed Print File mode)

The device specified by the "Name" setting can be any valid pathname (including UNC share-names). Both the "CreateNewFile" and "LFToLFCR" settings (see sections 3.1 and 3.2) are recognised when this mode is selected.

Important note: Although it is possible to specify a relative pathname for the Windows filename (e.g. GSMPRINT.TXT) an absolute pathname (e.g. C:\GSMNT\GSMPRINT.TXT) is **strongly recommended**. An absolute pathname is absolutely essential if the "Set Default Directory" function is executed using the SVC-61 interface.

3.3.3 DOS.PRI Operating Notes (Windows Spool Folder mode)

The device specified by the "Name" setting can be any valid folder. If the version of GLOBAL.EXE is V3.7, or earlier, the "CreateNewFile" setting is ignored when this mode is selected (see section 3.1). If the version of GLOBAL.EXE is V3.8, or later, the "CreateNewFile" setting is recognised when this mode is selected (see section 3.2). The "LFToLFCR" setting is recognised for all versions of GLOBAL.EXE.

By default, the specified folder must exist otherwise the printer controller will be removed dynamically from the configuration when the Global Client is started (i.e. the printer will not

appear in the $U report and an ASSIGNMENT ERROR will occur when attempting to print to the 5*nn* unit). However, this default behaviour can be modified by the DisableValidation option (see section 3.13).

Every Global System Manager print file will generate a corresponding Windows file with a unique filename in the spool folder. **By default**, the name of the Windows file will be of the form:

xxxxxxxx.nnn

where *xxxxxxxx* is the name of the Global print file and *nnn* is an incrementing sequence number that ensures the Windows filename is unique. Unlike the DOSPrint controller (see Technical Note IN406) no further options are available to modify the name of the Windows file created.

The DOS.PRI controller removes all non-alphanumeric characters from the Global filename to generate the first part of the Windows filename. For example, using $F in partition 2 to create a report (e.g. PRI) produces a Global print file called D.$F02. This filename will be converted to DF02.*nnn* (e.g. DF02.001) by the DOS.PRI controller.

If the removal of non-alphanumeric characters in the filename results in an empty string (i.e. if the Global filename includes **no** alphanumeric characters) the first part of the filename is set to "NONAME".

The sequence number is derived from those Windows files that are resident in the Windows Spool Folder when the Global Client is started. The sequence number will start from "001" if the directory is empty. The maximum sequence number is "999". **By default**, if this limit is reached no more files will be written to the Windows Spool Folder and a Global System Manager "DIRECTORY FULL" error will be reported when attempting to print. However, this default behaviour can be modified by the SuffixWrap option (see section 3.22).

Important note: Although it is possible to specify a relative pathname for the Windows Spool Folder (e.g. GSMSPOOL\) an absolute pathname (e.g. C:\GSMNT\GSMSPOOL\) is **strongly recommended.** An absolute pathname is absolutely essential if the "Set Default Directory" function is executed using the SVC-61 interface.

3.3.4 DOS.PRI Operating Notes (UNC Printer Name mode)

The device specified by the "Name" setting can be the UNC name of a Windows printer (e.g. \\GlobalNt1\City_Basement_Left). The "CreateNewFile" setting (see section 3.1) **MUST** be enabled if this mode is selected.

3.4 +DeviceCharacteristics

This value setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is

equivalent to the DEVICE CHARACTERISTICS option in the configuration file as documented in CFM81.

The printer-number specific +DeviceCharacteristics setting (if present) immediately under the "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599) overrides the printer-class specific +DeviceCharacteristics setting (if present) immediately under the "Printers\DOS.PRI" key, which in turn, overrides the generic-printer +DeviceCharacteristics setting (if present) under the "Printers" key.

The default value is 0.

3.5 +HardwareFormFeed

This string setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is equivalent to the HARDWARE FORMFEED option in the configuration file as documented in CFM81.

The +PageDepth option (see section 3.7) is only recognised if the +HardwareFormFeed option is disabled. If the +HardwareFormFeed option is enabled the +PageDepth setting is ignored.

The printer-number specific +HardwareFormFeed setting (if present) immediately under the "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599) overrides the printer-class specific +HardwareFormFeed setting (if present) immediately under the "Printers\DOS.PRI" key, which in turn, overrides the generic-printer +HardwareFormFeed setting (if present) under the "Printers" key.

The default setting is "On". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “On”.

3.6 +MaximumPageWidth

This value setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is equivalent to the MAXIMUM PAGE WIDTH option in the configuration file as documented in CFM81.

The printer-number specific +MaximumPageWidth setting (if present) immediately under the "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599) overrides the printer-class specific +MaximumPageWidth setting (if present) immediately under the "Printers\DOS.PRI" key, which in turn, overrides the generic-printer +MaximumPageWidth setting (if present) under the "Printers" key.

The default value is 250 (note that the default value for the MAXIMUM PAGE WIDTH configuration file option is 132).

3.7 +PageDepth

This value setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is equivalent to the PAGE DEPTH option in the configuration file as documented in CFM81.

The +PageDepth option is only recognised if the +HardwareFormFeed option (see section 3.5) is disabled. If the +HardwareFormFeed option is enabled the +PageDepth setting is ignored.

The printer-number specific +PageDepth setting (if present) immediately under the "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599) overrides the printer-class specific +PageDepth setting (if present) immediately under the "Printers\DOS.PRI" key, which in turn, overrides the generic-printer +PageDepth setting (if present) under the "Printers" key.

The default value is 0.

3.8 +PrinterDescription

This string setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is equivalent to the DESCRIPTION option in the configuration file as documented in CFM81.

The printer-number specific +PrinterDescription setting (if present) immediately under the "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599) overrides the printer-class specific +PrinterDescription setting (if present) immediately under the "Printers\DOS.PRI" key. Note there is no generic-printer +PrinterDescription setting directly under the "Printers" key.

The default setting is "DOS.PRI Printer".

3.9 +PrinterExecFlagByte

This value setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is equivalent to the PRINTER EXECUTIVE FLAG BYTE option in the configuration file as documented in CFM81.

The printer-number specific +PrinterExecFlagByte setting (if present) immediately under the "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599) overrides the printer-class specific +PrinterExecFlagByte setting (if present) immediately under the "Printers\DOS.PRI" key, which in turn, overrides the generic-printer +PrinterExecFlagByte setting (if present) under the "Printers" key.

The default value is 0xff (255).

3.10 +PrinterExecTimeout

This value setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is equivalent to the TIME-OUT IN TENS OF SECONDS option in the configuration file as documented in CFM81.

The printer-number specific +PrinterExecTimeout setting (if present) immediately under the "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599) overrides the printer-class specific +PrinterExecTimeout setting (if present) immediately under the "Printers\DOS.PRI" key, which in turn, overrides the generic-printer +PrinterExecTimeout setting (if present) under the "Printers" key.

The default value is 2. The value must be between 0 and 63, inclusive.

3.11 +PrinterPool

This value setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is equivalent to the bottom 4-bits of the DEVICE CHARACTERISTICS option in the configuration file as documented in CFM81. The +PrinterPool setting affects the bottom 4 bits of Printer DEVICE CHARACTERISTICS BYTE (PADC1) as follows:

+PrinterPool value	Bottom 4 bits of PADC1
0	#08
1	#09
2	#0A
3	#0B
4	#0C
5	#0D
6	#0E
7	#0F

The +PrinterPool option is available to allow simultaneous, multiple-user printing to a particular Windows folder, with a single $PR assignment, **without the need to run the Global spooler, $SP**. If any printer in a particular Printer Pool is IN USE, printing will automatically use another printer in the same pool, avoiding the IN USE error that would normally result when two, or more users, attempt to print to the same Printer Device (e.g. 500) simultaneously.

Consider the following "non Pooled Printer" configuration:

```
..\Printers\DOS.PRI\500\Name=C:\SPOOLFOLDER1\
..\Printers\DOS.PRI\503\Name=C:\SPOOLFOLDER1\
```

By default, while a particular user is printing to SPOOLFOLDER1 via Printer Device 500, that printer will remain IN USE. During the print operation, any attempt by another user to create a file on SPOOLFOLDER1 will require the exclusive use of Printer Unit 500, which will be denied (i.e. an IN USE error will be returned by the OPEN operation). Note that while Printer Unit 500 is IN USE the operator can still create a file on SPOOLFOLDER1 but only by explicitly changing the printer assignment (e.g. $PR) from 500 to 503. Changing the Printer Unit to overcome IN USE errors is **EXTREMELY** inconvenient.

Now consider the following "PooledPrinter" configuration:

```
..\Printers\DOS.PRI\500\Name=C:\SPOOLFOLDER1\
..\Printers\DOS.PRI\500\+PrinterPool=0
..\Printers\DOS.PRI\501\Name=C:\SPOOLFOLDER1\
..\Printers\DOS.PRI\501\+PrinterPool=0
..\Printers\DOS.PRI\502\Name=C:\SPOOLFOLDER1\
..\Printers\DOS.PRI\502\+PrinterPool=0
```

If a user is printing to SPOOLFOLDER1 via Printer Device 500, that printer will still remain IN USE. However, during the print operation, any attempt by another user to create a file on SPOOLFOLDER1 via Printer Unit 500 will be automatically be redirected to Printer Unit 501. If Printer Unit 501 is also IN USE, the operation will be automatically be redirected to 502. Thus, the print operation is automatically redirected to the first available Printer Unit within the pool **WITHOUT** the need to explicitly change the printer assignment. An IN USE error will only be returned if **ALL** the printers in the pool are simultaneously IN USE. Obviously, the size of the Printer Pool, in terms of the number of Printer units that are participating, depends on the number of users and the frequency of print operations.

The printer-number specific +PrinterPool setting (if present) immediately under the "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599) overrides the printer-class specific +PrinterPool setting (if present) immediately under the "Printers\DOS.PRI" key, which in turn, overrides the generic-printer +PrinterPool setting (if present) under the "Printers" key.

The default value is 0. The value must be between 0 and 7, inclusive.

3.12 +SpoolerControlBits

This value setting is fully described in IN181. When the option to replace the Global Configuration File by registry settings is enabled (UseConfigurationFile=Off) this value is equivalent to the SPOOLER CONTROL BITS option in the configuration file as documented in CFM81. Note that the value of the +SpoolerControlBits setting (i.e. 0, 1, 2 or 3) is shifted left by 6 bits (i.e. multiplied by 64) to form the equivalent SPOOLER CONTROL BITS value (i.e. #00, #40, #80 or #C0). This value is then combined (by a Logical OR operation) with the +PrinterExecTimeout value.

The printer-number specific +SpoolerControlBits setting (if present) immediately under the "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599) overrides the printer-class specific +SpoolerControlBits setting (if present) immediately under the "Printers\DOS.PRI" key, which in turn, overrides the generic-printer +SpoolerControlBits setting (if present) under the "Printers" key.

The default value is 0. The value must be between 0 and 3, inclusive.

3.13 DisableValidation

By default, the value of the “Name” setting (see section 3.3) is validated during the Printer Initialisation phase of the Global Client start-up processing. Normally, the “Name” setting

(e.g. “D:\MYPRINTS\”) is valid at all times, including the period while the Global Client is loading. Thus, validating the “Name” setting at Global Client load-time is usually acceptable. However, under some conditions, the value of the “Name” setting may not valid while the Global Client is loading (the setting must, of course, be valid before the printer can be used). The most obvious example of a “Name” setting that can be invalid at GSM load-time, but valid before a printer is used, is when the “Name” setting specifies a shared folder on a different PC from the one that is running the Global Client (e.g. \\SERVER1\MYPRINTS). If the remote, shared folder is inaccessible at Global Client load-time the corresponding printer unit will be dynamically removed from the table of available GSM printers (i.e. the Printer Unit will not appear in the list displayed by $U).

Enabling the “DisableValidation” setting avoids the load-time validation of the “Name” setting. When this option is enabled the name of the associated print file or spool folder is not validated during the Printer Initialisation phase of GSM start-up. Any errors with the print file name or spool folder specified in the "Name" setting in the registry will only detected when the first attempt is made to use the printer.

The printer-number specific DisableValidation setting (if present) immediately under the "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599) overrides the printer-class specific DisableValidation setting (if present) immediately under the "Printers\DOS.PRI" key. Note there is no generic-printer DisableValidation setting directly under the "Printers" key.

The default setting is "Off". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “Off”.

3.14 EnableISOTranslation

The DOS.PRI interface allows ISO character translations to be specified in the registry. This option can avoid the requirement to establish Printer Control Files if only simple character translation is required. To enable the low-level ISO character Printer Translation the EnableISOTranslation string setting must be enabled.

When the EnableISOTranslation option is enabled the DOS.PRI interface will apply the translations defined in:

..\Global\Client\Screens\GUI\IsoTranslations\ISOchar128=#hh

to:

..\Global\Client\Screens\GUI\IsoTranslations\ISOchar255=#hh

See section 4.1 for further details.

The default setting is "Off". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “Off”.

3.15 FixedFileTempFileName

When this string setting is enabled the ".tmp" extension is added to the filename created by the printer controller during the OPEN operation (e.g. print.txt is created as print.txt.tmp). When the print file is closed, during the CLOSE operation, the file is renamed to remove the ".tmp" extension. This option only applies if the "Name" setting (see section 3.3) specifies a fixed filename (i.e. rather than a Windows Spool Folder), and if the "CreateNewFile" option (see section 3.1) is enabled.

The default setting is "Off". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “Off”.

3.16 Mode

This string setting is available to select the operating mode for the serial port. This option is only recognised if the "Name" setting (see section 3.3) specifies a serial device (e.g. "COM1:"). If the Mode setting is not specified on Windows NT, Windows 2000, Windows XP or Windows 2003, Global System Manager will reprogram the serial mode as specified in the Windows control panel for the specified COM device. If the Mode setting is not specified on Windows 95 or Windows 98, Global System Manager will NOT attempt to reprogram the serial port (i.e. the last port setting, or the Windows default if no other application has used the serial port, will be used).

No default is available but when this registry setting is added using GLREGED.EXE the default from the GLMACH.TLT file is "9600,N,8,1,X" (i.e. 9600 baud, No parity, 8 data bits, 1 stop bit, X-on/X-off protocol).

3.17 PrintViaSeparateThread

This string setting can be used to run the DOS.PRI "print function" in a separate processing thread from the main interpreter and thus reduces the adverse effect on multi-user performance when printing to slow print devices.

The printer-number specific PrintViaSeparateThread setting (if present) immediately under the "Printers\DOS.PRI\5*nn*" key (where 5*nn* = 500 to 599) overrides the printer-class specific PrintViaSeparateThread setting (if present) immediately under the "Printers\DOS.PRI" key. Note there is no generic-printer PrintViaSeparateThread setting directly under the "Printers" key.

The default setting is "Off". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “Off”.

YOU ARE STRONGLY ADVISED TO ENABLE THIS OPTION IF YOU ARE PRINTING TO A DOS DEVICE ON A MULTI-USER GSM (WINDOWS) CONFIGURATION.

3.18 RemoveCR

This string setting can be used to enable a File Editing function within the DOS.PRI controller. When this option is enabled the DOS.PRI controller removes trailing <CR> characters (0x0D) from the output print file.

This option is available for specialised data export and should be used with extreme caution. This option is documented for completeness only.

The default setting is "Off". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “Off”.

3.19 RemoveFF

This string setting can be used to enable a File Editing function within the DOS.PRI controller. When this option is enabled the DOS.PRI controller removes trailing Form-Feed <FF> characters (0x0C) from the output print file. Thus, this option effectively removes hard page-breaks from the print file..

This option is available for specialised data export and should be used with extreme caution. This option is documented for completeness only.

The default setting is "Off". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “Off”.

3.20 RemoveLF

This string setting can be used to enable a File Editing function within the DOS.PRI controller. When this option is enabled the DOS.PRI controller removes all Line-Feed <LF> characters (0x0A) from the output print file.

This option is available for specialised data export and should be used with extreme caution. This option is documented for completeness only.

The default setting is "Off". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “Off”.

3.21 SkipPortInitialise

If this string setting is enabled the DOS.PRI controller avoids calling the SetCOMPort function. This option may be required if the SetCOMPort function consistently returns an error.

The default setting is "Off". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “Off”.

Important Note: This option is only supported by GLOBAL.EXE V3.8, or later.

3.22 SuffixWrap

This string setting is only recognised by the DOS.PRI controller when creating files on a Windows Spool Folder (i.e. when the "Name" option (see section 3.3) specifies a Windows folder). By default, when a file suffix of ".999" is reached for a particular DOS.PRI device the next print operation on that printer results in an immediate DIRECTORY FULL error. If the "SuffixWrap" option is enabled, the error is avoided and the file suffix merely wraps round to ".000" (*sic*).

The default setting is "Off". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “Off”.

3.23 EnableAlignmentPatternSuppression

This setting may be used to enable the suppression of printer Alignment Patterns from reports printed via the DOS.PRI controller. The printer-number specific "EnableAlignmentPatternSuppression" option enables the Alignment Pattern suppression logic for a particular printer. This option is used in conjunction with two generic-printer options (see below).

Although the **end** of a printer Alignment Pattern can be easily detected (by recognising a specific Printer Control Byte), the **start** of a printer Alignment Pattern is not so easy to detect. The start of a printer Alignment Pattern can only be detected by recognising the combination of a new Page Depth and Stationery Mount Message text. The following generic-printer settings:

..\Global\Client\Printers\SuppressAlignmentPatternDepth*N*
..\Global\Client\Printers\SuppressAlignmentPatternDepth*NN*
..\Global\Client\Printers\SuppressAlignmentPatternText*N*
..\Global\Client\Printers\SuppressAlignmentPatternText*NN*

(where *N* = 1 to 9; and *NN* = 10 to 99) allow up to 99 Page Depth/Stationery Mount Message combinations to be specified. For example, the Alignment Pattern in the Global 2000 Purchase Order report is immediately preceded by a Mount Message of "Purchase order forms" and a Page Depth of 48 lines. To suppress the Alignment Pattern in this report for printer unit 520 set the following registry settings:

..\Global\Client\Printers\DOS.PRI\520\EnableAlignmentPatternSuppression=On
..\Global\Client\Printers\SuppressAlignmentPatternDepth1=48
..\Global\Client\Printers\SuppressAlignmentPatternText1="Purchase order forms"

If it also necessary to suppress an Alignment Pattern that is immediately preceded by a Mount Message of "Example mount message" and a Page Depth of 50 lines (for example) another pair of settings must be used:

..\Global\Client\Printers\SuppressAlignmentPatternDepth2=50
..\Global\Client\Printers\SuppressAlignmentPatternText2="Example mount message"

The default setting is "Off". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “Off”.

Important Note 1: This setting is only required for reports where more conventional techniques (e.g. $CUS) cannot be used to suppress the Alignment Patterns because the associated Mount Messages do not conform to the "modern standards" (see the Global Development File Management Manual).

Important Note 2: The string comparison on the Mount Message text is case sensitive.

Important Note 3: This setting is only supported by GLOBAL.EXE V3.8, or later.

3.24 IgnoreThisPrinter

This string setting can be set to "On" etc. to temporarily remove a specific DOS.PRI printer from the Global configuration. This option is useful because it removes the printer without deleting the DOS.PRI\5*nn* key from the registry, and thus removing all the other **printer-number** specific settings, which can remain in the registry. The DOS.PRI printer can be easily re-instated by either setting IgnoreThisPrinter=Off, or by deleting the IgnoreThisPrinter setting entirely.

The default setting is "Off". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “Off”.

Important Note: This setting is only supported by GLOBAL.EXE V3.8e, or later.

4. Registry Settings under DOS.PRI\5*nn*\IsoTranslations

4.1 ISOChar[128-255]

As explained in section 3.14 the DOS.PRI interface allows ISO character translations to be specified in the registry. This option can avoid the requirement to establish Printer Control Files if only simple character translation is required.

If the EnableISOTranslation option (see section 3.14) is enabled the DOS.PRI interface applies the translations defined in:

..\Global\Client\Screens\GUI\IsoTranslations\ISOchar128=#hh

to:

..\Global\Client\Screens\GUI\IsoTranslations\ISOchar255=#hh

For example, if the following generic ISO character translation options have been enabled:

..\Global\Client\Screens\GUI\IsoTranslations\ISOchar160=#81
..\Global\Client\Screens\GUI\IsoTranslations\ISOchar161=#82
..\Global\Client\Screens\GUI\IsoTranslations\ISOchar162=#83

and the following printer specific ISO translations have been enabled:

..\Global\Client\Printers\DOS.PRI\500\IsoTranslations\ISOchar161=#C1
..\Global\Client\Printers\DOS.PRI\501\IsoTranslations\ISOchar161=#C2

then the #A0 character (160 decimal) will be translated to #81 for all printers; the #A1 character (161 decimal) will be translated to #C1 for printer 500, to #C2 for printer 501 and to #82 for all other printers; the #A2 character (162 decimal) will be translated to #83 for all printers.

Note that a diagnostics option (PrinterTranslationDiagnostics) can be enabled to generate a dump file, .\log\PrinterTranslationDump.log, containing all the internal printer translation tables (see Technical Note IN401.DOC for further details).

5. Registry Settings under DOS.PRI\5*nn*\Diagnostics

5.1 CreateFileDiagnostics

This string setting is available to enable diagnostics to trouble-shoot problems with the Open Printer processing within the DOS.PRI controller. Enabling this option may be preferable to enabling the DiagnosticDisplays (see Technical Note IN401.DOC) as the CreateFileDiagnostics option, unlike DiagnosticDisplays, writes log information "silently" to a log file and does not require any operator intervention.

The following log file is associated with this option:

.\log\DOSPRICreateFile.log

A typical log-file entry contains:

```
DOS.PRI CreateFile error 80 on unit 580 file E:\gsmnt\prints\fred.txt at Sat Dec 13 11:04:57 2003
```

The default setting is "Off". Valid strings that enable the option are “On”, “True”, “Yes” and “1”. Valid strings that disable the option are “Off”, “False”, “No” and “0”. All invalid strings default to “Off”.