QueueScan 3000 Notes

1. Introduction & Overview

The QueueScan 3000 product is the second in a series of technical initiatives to improve the format of Global reports (the GXPrint interface, see Technical Note IN259, was the first such initiative). Other developments are in progress at the time of writing this note.

Unlike the GXPrinter Printer Interface, which is only available for 32-bit applications, the QueueScan 3000 Print View Interface, is available for both 32-bit **and** 16-bit applications.

The QueueScan 3000 Print View Interface consists of the following components, all of which are described in full detail in the sections that follow:

● The GSM (Windows) DOSPrint controller writes each print text-file to the "in" folder of a print queue. The DOSPrint controller then waits for a corresponding PDF file to be created in the "out" folder of the print queue;

● The QueueScan 3000 service scans the "in" folder and converts every text file that appears in this folder to a corresponding PDF format file, writing the .PDF file to the "out" folder of the print queue;

● When the GSM (Windows) DOSPrint controller detects the PDF file in the "out" folder of the print queue, the PDF file is transmitted to the GX.EXE or GSMWIN32.EXE thin client;

● The GX.EXE, or GSMWIN32.EXE, thin-client saves the PDF file in a temporary folder and initiates the Adobe Acrobat PDF Reader to allow the PDF file to be viewed by the operator;

● The Acrobat Reader supports a "Print" option which allows a hard-copy of the PDF file to be printed to **ANY** Windows printer configured on the thin-client (including networked printers and GDI interface printers);

● Optionally, when the Acrobat Reader is closed, a dialogue box appears which allows the operator to archive the PDF file, with a default folder provided (normally a shared folder on the server).

Important Note: The QueueScan 3000 Print View Interface is a "thin client" printer interface. Although a standard fat-client Printer Unit (e.g. 501) is used to commence the print operation all print files are transmitted to, and ultimately printed from, a GX (or GSMWIN32) thin-client. Thus, the target printer does not have to be a shared network printer on a "traditional" Windows LAN (or WAN). The target printer can be a "local printer" on a thin-client PC connected to the Global server via the internet.

2. Prerequisites

The following software is required on the Global thin-client server:

- A standard GSM (Windows) Global Client (i.e. GLOBAL.EXE) V3.5, or later, suitably configured with one, or more NETWORK screen controllers, and at least one DOSPrint printer controller. Note that this requirement is self-evident since a GLOBAL.EXE configured with one, or more, NETWORK controllers is precisely what defines a Global thin-client server;

- The QueueScan 3000 service (see section 3.2). **Important Note**: The version of Windows running the Global thin-client server (i.e. GLOBAL.EXE) **MUST** support Windows services. Windows services are applications that run outside of any particular user context in Windows NT, Windows 2000 or Windows XP;

The following software is required on the thin-client PC:

- A GSMWIN32.EXE thin-client V3.5, or later, configured as described in section 4.1; OR a GX.EXE thin-client V2.8, or later, configured as described in section 4.2;

- An installed copy of the Adobe Acrobat PDF Viewer. The version of the PDF viewer must be at least version 5, but you are always recommended to download the latest version from the Adobe web-site http://www.adobe.com/products/acrobat.

3. Server Installation

The installation of QueueScan 3000 on a Global thin-client server is a 2-stage process:

- install the QueueScan 3000 service;

- configure GSM to include one, or two, DOSPrint printers to write reports to the QueueScan 3000 print queue(s).
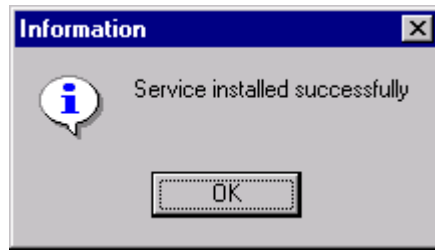
3.1   Pre-Installation

Create a new folder (e.g. QUEUESCAN3000) and extract the contents of QUEUESCAN.ZIP into the new folder.

3.2   QueueScan 3000 Service Installation

To install the QueueScan3000 service on a Windows NT, Windows 2000 or Windows XP server run the INSTALL.BAT batch file. This batch file simply runs the following command:

```
QUEUESCAN3000.EXE /INSTALL
```

If the installation completes successfully the following dialogue box should appear:

Click on the OK button. The installation will create the following folders in the current directory:

    PrintQData\
    Queue1\In\
    Queue1\Out\

And will install the following service:

    QueueScan 3000

Use Control Panel to check this service is installed and either start the service manually or specify it as an automatic service.

Note that the following 2 folders that are also created by the installation process are reserved for future use:

    Queue2\In\
    Queue2\Out\

Important Note: By default, the QueueScan 3000 service is set to Manual, so it is only loaded when needed. You are strongly advised to set the properties of this service to "Automatic".

3.3   Un-Installing the QueueScan 3000 Service
To remove the QueueScan3000 service on a Windows NT, Windows 2000 or Windows XP server run the UNINSTALL.BAT batch file. This batch file simply runs the following command:

    QUEUESCAN3000.EXE /UNINSTALL

3.4   Global Printer Customisation and Registry Changes
The QueueScan 3000 service scans two print queues for reports created by one or two Global printers. The first print queue, Queue1, is available for general-purpose use. The second print queue, Queue2, is reserved for future use. Although this example shows the registry settings for printer 501 (queue 1) any printer unit number can be configured. This example assumes QueueScan 3000 has been installed in the following directory:

F:\QSCAN3000\

Use GLREGED to add a DOSPrint controller registry key for printer 501:

..\Global\Client\Printers\DOSPrint\501

Note that the printer type must be "DOSPrint" (i.e. rather than "WinPrint" or "DOS.PRI"). Add the following settings:

..\Global\Client\Printers\DOSPrint\501\+PrinterDescription
This is the free-format printer description text. For example "QueueScan 3000 Queue 1".

..\Global\Client\Printers\DOSPrint\501\Name
This must be set to the "In" directory of the relevant QueueScan 3000 printer queue:

F:\QSCAN3000\QUEUE1\IN\

Important Note: The trailing backslash is **vital**.

..\Global\Client\Printers\DOSPrint\501\PrintViewDirectory
This must be set to the "Out" directory of the relevant QueueScan 3000 printer queue:

F:\QSCAN3000\QUEUE1\OUT\

Important Note: The trailing backslash is **vital**.

If the "..\Global\Client\UseConfigurationFile" setting is set to "Off" (i.e. the recommended setting) only the above 3 registry settings are required. If the "UseConfigurationFile" setting is "On" (i.e. the current default) a DOSPRINT controller, with the appropriate printer unit number, must be added to the Printer section of the Global Configuration File.

The following settings are optional and may be used to customise the printer interface:

..\Global\Client\Printers\DOSPrint\501\PrintViewExtension
This setting specifies the extension of the file created in the "Out" folder. The default is .PDF. **THIS SETTING IS RESERVED FOR FUTURE USE - DO NOT CHANGE IT.**

..\Global\Client\Printers\DOSPrint\501\PrintViewAddExtension
This setting specifies whether the PrintViewExtension should be added to the "original" filename (on), or should replace the extension of the "original" filename (off). **THIS SETTING IS RESERVED FOR FUTURE USE - DO NOT CHANGE IT.**

..\Global\Client\Printers\DOSPrint\501\PrintViewTimeOut
The setting specifies the timeout, in seconds, to wait for the newly created PDF file to appear. The default of 5 seconds may have to increased if QueueScan 3000 is being heavily used.

..\Global\Client\Printers\DOSPrint\501\PrintViewFileCopyBufferSize
This setting specifies the size of the buffer used when copying the PDF file to the thin-client.

..\Global\Client\Printers\DOSPrint\501\QueueScanPrinter
Despite the name, this string setting is **not** mandatory. However, it **may** be required if the QueueScan 3000 interface is being used for some G-2000 reports (e.g. for the Sales Ledger V6.3 Aged Debt Report). When this option is enabled the print line is scanned for characters containing binary-zero. All binary-zero characters are replaced by SPACE's. This option is required because the QueueScan3000.EXE text-file reformatting service treats a byte of binary-zero in the text-file as an End-Of-File character.

Note that this setting is only available with GLOBAL.EXE V3.8, or later.

..\Global\Client\Printers\DOSPrint\501\Diagnostics\PostCloseDiagnostics
If this setting is "On" the DOSPrint controller will write copious diagnostic information to the "DOSPrintDiags.log" file.

4. Thin Client Configuration
In addition to customising the Global thin-client server (i.e. GLOBAL.EXE) the GX.EXE, or GSMWIN32.EXE, thin-client must also be customised to handle the PDF files generated from the server.

4.1 GSMWIN32.EXE Thin-Client Customisation
To customise a GSMWIN32.EXE thin-client for the QueueScan 3000 print viewer the following settings must be defined in the [miscellaneous] section of the GSMWIN32.INI file:

PrinterTempDirectory
This setting specifies the folder, on the PC running the GSMWIN32.EXE thin-client, which will be used to temporarily hold the PDF files that are sent from the Global server.

Important note: That this directory will always be scratched before a new PDF file is created.

PrinterArchiveViewer
This setting **must** specify the full pathname of the Adobe Acrobat PDF reader. For example:

        C:\Program Files\Adobe\Acrobat 5.0\Reader\AcroRd32.exe

The latest version of the PDF reader can be downloaded from the Adobe web site.

The following advanced settings in the [miscellaneous] section of the GSMWIN32.INI file should not normally be changed:

PrinterArchiveDirectory

This setting is only necessary if it is required to archive the PDF after viewing **AND** if the version of Adobe Acrobat does not include a "Save As" option in the "File" menu. The setting specifies the default "archive" folder (which is normally a shared folder on the Global server). If the version of Adobe Acrobat does include a "Save As" option in the "File" menu you are recommended to archive the PDF files within the viewer software.

ProgressControlWidth

This setting allows the width of the file transfer progress bar to be varied between the limits of 150 and 500 and defaults to 180.

ReportProgressCaption

This setting defaults to "Status".

ReportProgressMessage

This setting defaults to "Report is being processed...".

4.2   GX.EXE Thin-Client Customisation

To customise a GX.EXE thin-client for the QueueScan 3000 print viewer, changes must be made to **both** the GX.INI and GXIO.INI files.

4.2.1   GX.INI File Customisation

To customise a GX.EXE thin-client the following settings must be defined in the [general] section of the GX.INI file:

PrinterTempDirectory

This setting specifies the folder, on the PC running the GX.EXE thin-client, which will be used to temporarily hold the PDF files that are sent from the Global server.

Important note: That this directory will always be scratched before a new PDF file is created.

PrinterArchiveViewer

This setting **must** specify the full pathname of the Adobe Acrobat PDF reader. For example:

C:\Program Files\Adobe\Acrobat 5.0\Reader\AcroRd32.exe

The latest version of the PDF reader can be downloaded from the Adobe web site.

4.2.2   GXIO.INI File Customisation

To customise a GX.EXE thin-client the following settings must be defined in the [miscellaneous] section of the GXIO.INI file:

PrinterTempDirectory

This setting specifies the folder, on the PC running the GX.EXE thin-client, which will be used to temporarily hold the PDF files that are sent from the Global server.

Important note: The value of the PrinterTempDirectory in the [miscellaneous] section of the GXIO.INI file **MUST** agree with the value of the PrinterTempDirectory in the [general] section of the GX.INI file.

Astute readers will notice that the **PrinterArchiveDirectory**, **ProgressControlWidth**, **ReportProgressCaption** and **ReportProgressMessage** options available in GSMWIN32.INI are not supported in GX.INI/GXIO.INI.