TECHNICAL BULLETIN FROM GLOBAL BUSINESS SYSTEMS

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Global System Manager and Microsoft Windows™

This bulletin describes some potential problems when running Global System Manager, particularly multi-user configurations, in a Microsoft Windows environment.

RUNNING PROGRAMS UNDER MICROSOFT WINDOWS

Microsoft Windows can operate in one of two modes: Standard mode and 386 enhanced mode. Global System Manager will only run in 386 enhanced mode. When Microsoft Windows is operating in 386 enhanced mode application programs, particularly non-Windows applications, can be run in various execution modes. These modes affect the way in which application programs behave when they are run in background and how they affect the behaviour of other applications running in background.

RUNNING TRUE WINDOWS APPLICATIONS UNDER MICROSOFT WINDOWS

By default, true Windows applications do not affect the execution of other programs (apart from using up a share of the processor time) and will always continue to execute when running in background. This behaviour can be modified by the 386 Enhanced dialogue box in the Control Panel. The scheduling section of this dialogue box allows two values to be specified ("Windows in Foreground" and "Windows in Background") which affect the relative priorities of applications programs. This section also contains an "Exclusive in Foreground" checkbox, which, if selected, means that whenever a true Windows program is executing in foreground all non-Windows applications will stop running.

RUNNING NON-WINDOWS APPLICATIONS UNDER MICROSOFT WINDOWS

A non-Windows application (i.e one that has been written to run under MS-DOS) is usually started by an associated PIF file which specifies various parameters for that program. For example, the PIF file specifies the memory requirements for a non-Windows application. The PIF file also allows the execution mode to be specified via two checkboxes, "Background" and "Exclusive".

If the background execution mode is selected the non-Windows application will continue to run when another application is running in foreground. If the background execution mode is not selected then the application will lie dormant whilst another application (Windows or non-Windows) is running in foreground.

If the exclusive option is selected then the non-Windows application will cause all currently executing programs to stop running when it is running in foreground.

Note that both of these options can be selected simultaneously.

Non-Windows applications can also be started by using the Run menu entry in the File menu of Program Manager and entering the program's filename, with an EXE or COM extension (e.g. GSMLOAD.EXE, PCWS.COM) or a batch filename, with a BAT extension (e.g. GLOBAL.BAT). Windows detects that a non-Windows program is being loaded and initiates an MS-DOS environment with a default execution mode. The execution mode set does not allow for background processing and does not take exclusive control of the computer.

Non-Windows applications can also be started by initiating a DOS session, via the MS-DOS Prompt icon in the Main program group, and running the program from the command line. In this case the execution mode is set by the DOSPRMPT.PIF file (i.e. the PIF file initiated when the MS-DOS Prompt icon is clicked).

Note that in all the above cases the system menu associated with the DOS window contains a Settings entry. On choosing this entry a dialogue box is displayed which allows the current execution mode to be changed.

Note also that a parameter in the SYSTEM.INI file can override the PIF file execution mode parameters. The AllVMsExclusive setting in the 386Enh section can be used to force all non-Windows programs to be executed in exclusive mode, regardless of the PIF file settings.

RUNNING GLOBAL SYSTEM MANAGER UNDER MICROSOFT WINDOWS

Global System Manager can be regarded as a non-Windows application since it is initiated by GSMLOAD.EXE, and so is subject to the execution modes

described above. Most non-Windows applications rarely need to be run in background mode. The default settings that are established when running a program directly from its name reflect the single-user mode of most non-Windows applications.

A single-screen Global System Manager configuration is effectively a standard, single-user MS-DOS application, but multi-user and networked Global System Manager configurations **MUST** have background execution mode enabled to allow serial screens and/or network cards to continue working if Global System Manager, on the integral screen, has been switched into background. The GSMBOOT.PIF supplied with Global System Manager on the BACNAT diskette enables background execution mode.

The exclusive execution mode for both Windows and non-Windows applications will also affect multi-user and networked Global System Manager configurations since they will effectively stop the main Global System Manager process.

The general guidelines for running a multi-user or networked Global System Manager configuration in a Windows environment are as follows:-

· Always initiate Global System Manager from GSMBOOT.PIF;

· Do not change the background execution mode setting in GSMBOOT.PIF;

· Do not set the "Exclusive in Foreground" option in the 386 Enhanced dialogue box in Control Panel;

· Do not set the "Exclusive" execution option in the PIF files for any non-Windows applications that may be run whilst Global System Manager is in use;

· Do not use the AllVMsExclusive setting in SYSTEM.INI;

· Never set exclusive execution mode while running a non-Windows application.