

TECHNICAL BULLETIN FROM GLOBAL BUSINESS SYSTEMS

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Enhancements to Global System Managers for BOS, DOS, Windows and Novell

This bulletin is to announce a major repackage of Global System Manager (BOS), Global System Manager (MS-DOS and Windows) and Global System Manager (Novell NetWare). The changes to the Global System Manager nucleus are largely independent of the version of Global System Manager and apply to Global System Manager V7.0, Global System Manager V8.0 and Global System Manager V8.1.

Please note the new software is not available free of charge and must be re-ordered as a regeneration.

The variant number for the new nucleus and BACNAT software is V4.2.

The repackaging for Global System Manager (BOS) includes the following features:

- The =.NNNN customisation program has been upgraded to operate with V8.1 \$CUS and now correctly partitions SCSI hard-disks for use with the Global System Manager (BOS) disk partitioning scheme. Some improvements have been made to the Hyper/MX customisation function. It is now possible to specify a poll period greater than 99 milliseconds;
- The Adaptec AHA-154x/AHA-164x SCSI host adapter module (+J5NADA) has been improved to allow the I/O address of the adapter card to be specified. The following prompt appears in the NUCLEUS SECTION of the configuration file when running Global configurator:

**Adaptec SCSI card required? (Y) : Y
Adaptec SCSI card I/O address (#0000) :**

Set the "card I/O address" to a non zero value to enable the new option. This option is expected to be useful when Global System Manager is required to access only one of several possible Adaptec host adapter cards configured in a computer;

- The Global System Manager Serial Port Driver (SPD), %J5S03, has been improved to correctly report a "Port In Use" error if an attempt is made to access the same port simultaneously on 2 partitions;
- A problem in the BIOS hard-disk controller, +J5CA04, that causes some

large disks to appear smaller to Global System Manager than their true capacity, has been fixed. The BIOS hard disk controller truncates the number of tracks (i.e cylinders * heads) on a "BIOS disk" (i.e one that is accessed using BIOS calls) to 65535. The controller also truncates the number of heads on a BIOS disk to 255;

- A bug has been fixed in the Hyperport printer controller that causes Busy-line handshaking to fail if the printer "Automatic Line feed" customisation is enabled;
- A problem in both the ARCNET controller (+J5CF02) and the ARC-500 controller (+J5CF06) has been fixed. The problem caused a computer to "drop off the network" if an attempt was made to access another computer that was powered-up but not running Global System Manager (e.g if \$BYE had been used to return control on a computer that was running Global System Manager (DOS) back to MS-DOS);
- The V8.1 Auxiliary Printer controller (\$AUXPRI) has been added to the AJ5 Action File so that Global Configurator can be used to add the \$AUXPRI controller to configuration files;
- All Global System Manager (BOS) configuration files have been amended to include at least as many Printer Buffers as Printer Units. Furthermore, all Global System Manager (BOS) configuration files have been amended to include an entry for the +J5NKEY module (see Global Technical Bulletin GT716 02/11/94);
- The Adaptec SCSI \$TDUMP controller, %J5CT02, is now distributed on all Global System Manager (BOS) BACRES diskettes;
- Several diagnostic modules, +J5NDIAG, +J5NTRAP and +J5NCORE (formerly named +J5NCOR), are distributed with Global System Manager (BOS).

In addition to the changes described above, (replacing "J5" by "JW" as appropriate) the repackaging for Global System Manager (MS-DOS and Windows) includes the following features:

- The V8.1 Auxiliary Printer controller (\$AUXPRI) has been added to the AJW Action File so that Global Configurator can be used to add the \$AUXPRI controller to configuration files. The Global Windows Workstation Console controller (WINTTY) has also been added to the AJW Action File so that Global Configurator can be used to add the WINTTY controller to configuration files.
- Two new prompts appear in the DOS.PRI controller section of AJW. The first prompt enables the option to always create a new file when printing to a DOS filename (this option is expected to be useful when exporting data to other MS-DOS applications). The second new prompt in the DOS.PRI controller allows the DOS device to be opened in "raw" mode (the default open mode is "cooked");

- The number of printers in all Global System Manager (MS-DOS) configuration files has been set to 1 to agree with the number of DOS.PRI devices in the standard GSM.INI file;
- A new version of the timer SVC, +JWNSV9, has been produced that fixes the "slow clock" problem that occurs when Global System Manager is running as a background task under Windows;
- A problem in the SSD-FILE controller, +JWCA0C, has been fixed that sometimes causes a computer crash when \$V is used to de-allocate one or more sub-volumes;
- The DOS.PRI printer controller has been improved. Formerly, if the name of the DOS file being created in a "DOS spool directory" was invalid an error-Z would result. The printer controller has been modified to create a DOS file of "NONAME" under these circumstances. The controller includes an option to always create a new DOS file (the old version always appended to an existing file). The controller includes an option to open the DOS printer device in "raw" mode (the old version always opened the DOS printer in "cooked" mode);
- The bootstrap part-2 for the DOS-FILE controller in the #.NNNN bootstrap library has been renamed from +JWB0230 to +JWB02;
- A new Console controller for the GSM Windows option, +JWCBOB, is included in the +JWDOS nucleus library in preparation for the release of the Global Windows Workstation option;
- The dialogue for ALLOCATE.EXE has been improved to allow for the Global System Manager (Novell NetWare) "T259Z" configuration codes 5612 and 5613 (see below). A problem in the "Enlarge Sub-volume" option of ALLOCATE.EXE has been fixed. The problem only occurred when the enlarge function failed because of insufficient space on the hard-disk (the size of the resultant sub-volume file would be random causing the corresponding sub-volume to be ignored by the SSD-FILE controller when Global System Manager is next loaded).

The functionality of ALLOCATE.EXE has been incorporated into a suite of utilities:

GLMKDDF.EXE	Make Discrete Data File (SSD-FILE)
GLMKIDF.EXE	Make Integrated Data File (DOS-FILE)
GLENDDF.EXE	Enlarge Discrete Data File
GLDDINF.EXE	Display Disk Information

All 4 utilities will accept command line arguments. It is our intention to remove ALLOCATE.EXE from the BACNAT software in a future release of Global System Manager (MS-DOS).

- The value of \$\$SYSM in all Global System Manager (MS-DOS) configuration files is set to 2.

In addition to the two sets of changes described above, replacing "J5" by "JW" as appropriate the repackaging for Global System Manager (Novell NetWare) includes the following features:

- Two new configuration codes have been allocated for Global System Manager (Novell NetWare) configurations:

5612 Global System Manager (Novell NLM) T259Z format (5¼")
5613 Global System Manager (Novell NLM) T259Z format (3½")

Both configurations include format T259Z as default for both the NLM file-server configuration and the workstation configurations.

To summarise the differences between the 5610, 5611 and 5612, 5613 configurations:

<u>Description</u>	<u>5610, 5611</u>	<u>5612, 5613</u>
Domain unit number	200	200
Domain volume format	T151Z	T259Z
Domain number of subvolumes	95	99
Domain number of files	250	250
IPL unit number	296	110
IPL volume format	P151Z	Z151Z
IPL number of subvolumes	1	0
IPL number of files	99	250

Important note: Volume format Z151Z is only available in versions of the Volume Type Action File, A.VTYPE, dated 27.11.94, or later. This version of A.VTYPE is the default with Global Configurator V8.1. However, if you are using Global Configurator V8.0 zap CF8003 must be applied otherwise Z151Z will be treated as an invalid volume format;

- All new and existing Global System Manager (Novell NetWare) configuration files include entries for a RAM Disk and a CD-TAPE tape controller. The value of \$\$SYSM in all Global System Manager (Novell NetWare) configuration files is set to 3.
- The Action file for the NLM file-server configuration, A.C3, has been amended to include format T259Z in the help-text displayed by Global Configurator;
- A new Network Printer controller (NET.PRI) has been added to A.JW for Global System Manager (Novell NetWare) configurations (see below);
- The default configuration file for the NLM file-server configuration now includes 200 File Channels (increased from 64) and 100 File Blocks (increased from 30). The number of Lock Table entries remains at 100;
- The variant 4.2 BACNAT software includes the V1.10 NetWare Loadable Module (NLM). The V1.10 NLM includes the following changes:-

The V1.10 fulfils all the requirements of the Novell "NLM Self-Certification" procedure;

A problem that caused the \$F CHA instruction on a domain to appear to work (until the NLM is next loaded) has been fixed;

A problem that caused the node-id in the NLM maintenance screen to be displayed incorrectly if the logical node-id has the top bit set has been fixed.

- The SPX LAN controller, +JWCF0B, has been upgraded to allow the LADIAG diagnostic utility to be used with Global System Manager (Novell NetWare). Furthermore, a bug has been fixed that caused a loss in network performance. SAP Broadcast packets are now sent every 30 seconds instead of every second. The PING utility has also been modified to send SAP packets less frequently to mirror the functionality of the Global System Manager LAN controller;
- The NET.PRI controller, +JWCE08, has been enhanced to allow printing to NetWare Queues to avoid the necessity to use the limited functionality of the NetWare CAPTURE command. **This facility is only available with Global System Manager V8.1.**
- A problem in the Global System Manager (Novell NetWare) LAN Executive, +JWEF01, which caused a problem with Access Method locks on the NLM server has been fixed.