TECHNICAL BULLETIN FROM GLOBAL BUSINESS SYSTEMS

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Release of Global System Manager V8.1 revision V8.1c

This bulletin announces the release of Global System Manager V8.1 revision V8.1c. V8.1c is the first external revision of Global System Manager V8.1.

Revision V8.1c includes several new features and significant enhancements to Global System Manager V8.1:-

- Global System Manager V8.1 can now be upgraded without the need for a full installation. GSM V8.1c includes a new option in $CUS (System Maintenance/Upgrade GSM revision) which invokes a new overlay, $CUSUPD. This overlay will extract the new components from a V8.1 BACRES, BEA, HAA, EPA diskette set to upgrade the revision of an installed Global System Manager V8.1. This option allows an existing installation to upgrade the revision of GSM V8.1 WITHOUT THE NEED TO INSTALL GSM BY REBOOTING FROM THE BACRES DISKETTE.

  In order to upgrade an existing V8.1 installation to V8.1c, the file $CUSUPD must be extracted from the P.FULL2 library on the BEA volume and copied into the P.$CMLB1 library on SYSRES. $CUSUPD can then be run from the menu or the GSM READY: prompt. **Important note:** $CUSUPD cannot be used to upgrade from GSM V8.0, or earlier, to GSM V8.1.

  $CUSUPD first prompts for the BACRES diskette. The update file, $$UPDATE, is read from BACRES. Using the contents of $$UPDATE, the free space on the SYSRES volume is analysed. If $CUSUPD detects there is insufficient space on the SYSRES volume, or if there is insufficient space in a command library (e.g. P.$CMLB1) a list is displayed. You should switch to another partition and use $F to enlarge the libraries and/or reorganise SYSRES. When $CUSUPD determines there is enough free space on SYSRES, job dialogue is generated to copy the new components on BACRES, BEA, HAA and, optionally, EPA to SYSRES.

  You are recommended to increase the sizes of the P.$CMLB0 and P.$CMLB1 libraries to allow 10% free space. This will reduce the amount of library reorganisation that will take place during the update and should reduce the time taken to complete the process.

For example, to increase the size of P.$CMLB0, use the following $F dialogue:

```
GSM P1 READY:$F
$66 INPUT DEVICE:$DP
$66 OUTPUT DEVICE:<CR>
$66 FILE MAINTENANCE
:COP :P.$CMLB0 to:P.0 SIZE:%10 COPIED
$66 FILE MAINTENANCE
:REN :P.0 AS:P.$CMLB0
$66 FILE ALREADY EXISTS - DELETE?:Y RENAMED
$66 FILE MAINTENANCE
```

Do not be concerned by the large number of MOUNT prompts issued by $CUSUPD (you will be required to mount each diskette several times). This is necessary because the job is optimised to reduce the number of library opens.

Note also that $CUSUPD cannot be used to upgrade revisions of Global Configurator, Global File Converters, Global Cobol Development System or the Global Speedbase Development System. These products continue to be installed from the CFA, FCA, MKA and EDA diskettes, respectively.

Important note: Before using $CUSUPD it is absolutely vital that the following unit assignments are set up correctly:-

$IP Unit assignment of SYSIPL device or unassigned if no SYSIPL used;

$BA Unit assignment of BACRES diskette.

Because of the slightly non-standard nature of the Global System Manager (Novell NetWare) installation, these unit assignments may not be established for Novell NetWare configurations. Use the $CUS Permanent Unit Assignment customisation to establish the $IP assignment to the workstation's SYSIPL unit (i.e. usually 297 or 110) and the $BA assignment, which will usually be set to a40, to the 3.5" diskette drive on the workstation (i.e. usually 140).

- $S has been improved to display the revision number of GSM (e.g revision "c" for GSM V8.1c).

- The size of the Unit Assignment table has been increased from 29 entries to any multiple of 29 (e.g. 58, 87 etc). This enhancement affects $A, <SYSREQ> I, $MH and the ASSIG$ subroutine. $CUSA includes a new customisation to modify the number of extra assignment tables. Use the $CUS/Configuration Maintenance/Miscellaneous Customisation option to set the Number of extra ASSIG$ tables to 1 to increase the maximum number of unit assignments from 29 to 58; 2 to increase from 29 to 78 or 3 to increase from 29 to 116. Note that applications must be relinked

with the V8.1c ASSIG$ in order to take advantage of the extended assignment table.

- Another variation of the Speedbase Access Method (SPAM) is available in preparation for the release of a new version of Speedbase that will allow Speedbase databases to be held in Btrieve file format.

- A new command (ABO) has been added to $STATUS to allow a Global System Manager session to be ABOrted without checking for open files or other users. This new command does not attempt any of the checking performed by the TER command (or $BYE) and must be used with extreme caution.

- Speedbase PM, $BACUS and $SDE have been upgraded to function with 8-bit character sets to allow Speedbase applications to be used with foreign languages.

- A new utility, $BBS, has been provided to allow files that have been down-loaded from a BBS to be converted to GSM without the need for File Converters. This utility has been provided to allow future versions of GSM and the development software to be upgraded from files supplied on the Global Business Systems BBS. $BBS is effectively a cut-down version of the MS-DOS file converter, and will only operate on Global System Manager (MS-DOS and Windows) or Global System Manager (Novell NetWare) configurations.

  $BBS allows MS-DOS directories to be listed, files to be exported from Global System Manager to MS-DOS and files to be imported to Global System Manager from MS-DOS.

  The list option provides a very simple MS-DOS directory listing.

  The export option allows any type of Global System Manager file, including a program file, to be converted to an MS-DOS text file in a format that is suitable for transmission by a Communications package or a BBS. The MS-DOS file format created by $BBS is identical to that created by the Comms option of the V8.1 Global File Converter FILECONV utility. The naming **convention** for the MS-DOS text file created by $BBS is to use the Global System Manager filename as the 8-character MS-DOS filename with a 3-character suffix of "GSM". Any characters in the Global System Manager filename that are illegal in an MS-DOS filename (e.g. ".") should be replaced by an underscore character. For example, the Global System Manager file "$BBS" would be converted to "$BBS.GSM"; the Global System Manager file "P.$CMLB0" would be converted to "P_$CMLB0.GSM".

  The import option allows an MS-DOS text file, created using the export option of $BBS, to be converted back to the original Global System Manager file. Note that this option can only be used to convert an MS-DOS text file that has created by either $BBS or the Comms option of the V8.1 Global File Converter FILECONV utility.

In addition to the above enhancements, the following bugs that occur during the installation of GSM V8.1 have been fixed in revision V8.1c:-

- If the save/restore customisation option is selected, the installation of GSM V8.1 can occasionally fail when $CUSP attempts to upgrade existing Printer Control Files. The pre-V8.1c version of $CUSP is too large to run under Job Management during the installation process.

- The installation job aborts if the size of the spool unit is too small. This problem has been fixed by validating the size of the spool unit.

- The installation job aborts if an attempt is made to save/restore an empty $$AUTH file.

- The installation process fails to copy the following files from the BEA volume to SYSRES:-

  DBREORG
  DBRBLD
  P.DM

- To conserve space in the GSM installation job, the option to specify the Memory Bank size has been removed. This parameter can only be customised using $CUS.

- The GSM installation patches the address of P.$MON as a LAN address (e.g X01) on LAN configurations. This can lead to problems if the LAN address is changed or if the LAN card is removed or the hardware fails. The installation job has been changed to always PIP a local address (e.g 201).

The following bugs that occur during the use of the run-time GSM V8.1 components have been fixed in revision V8.1c:-

- A PGM CHK 3 at F01E can occur when returning from a System Request or the debugger when running a Speedbase frame.

- A PGM CHK-11 at F0EE will occur when returning from a System Request if the current cursor X co-ordinate is exactly 128.

- The System Area flag SYFTWD should be set to -1 if an emulator TAP (i.e. a number prefixed by an "E") has been loaded. The value of -1 is only set up correctly in P1. In all other partitions, SYFTWD is set to 0.

- The performance of the V8.1 GSM Loader was improved by removing an undocumented feature that allowed dispersed library support without the need for library stubs. However, several external products appear to rely on this feature and suffered from spurious overlay load failures when used with GSM V8.1. This feature has been restored in GSM revision 8.1c.

- $A, in addition to handling more than 29 unit assignments, now displays the assignment table, sorted in order of logical unit, if the reply to the Unit? prompt is <CTRL C>. Furthermore, $A now prevents the $M logical unit from being reassigned.

- $BYE has been recoded to prevent the problem that causes it to abort with various TRAP's if the Memory High Address has been reduced, typically to allow for a large System Stack created by Speedbase Presentation Manager.

- $CUS has been enhanced in several areas:-

  The problem that causes a PGM CHK 10 at 1CA0 to occur in $CUS Configuration Maintenance (i.e. $CUSA) if <CR> is keyed to the "CA-block number" prompt in the "Console Control Blocks" option has been fixed.

  The problem that causes the $CUS "Apply Windows option password" to fail with a PGM CHK 3 at 205A if a character is missing from the password string has been fixed.

  All the replies accepted by the $CUS restore system customisation option are now converted to upper-case.

  The $CUS System Maintenance option that installs $$GROUP now correctly increases the size of the file.

  The $CUS System Maintenance option that installs $$MAIL now correctly increases the size of the file.

  The $CUS System Maintenance option that installs $$MAIL now correctly copies the $$MAIL file to SYSML rather than SYSRES.

  The $CUS Nucleus Update customisation option now correctly copies the A.*am* and =.*NNNN* files from BACRES to SYSRES.

  The dialogue for option 11 (Century start date) in the $CUS Configuration Customisation menu has been improved. Note also that the warning message displayed by GSM when a date in the 21st century is interpreted as a date at the start of the 20th century was also misleading and has been improved.

  A serious problem that could result in the use of the $CUS Apply Expiry Date Password (option 12 from the $CUS System Maintenance menu) corrupting the $STARH file and preventing GSM from reloading has been fixed.

  $CUS now prevents any attempt to customise printer buffers larger than the maximum usable length of 254 bytes.

  The $CUS Install Work Unit option always allocated a unit of 50Kb regardless of the value keyed. This problem has been fixed.

The $CUS Install Event Logging option always attempted to allocate a unit of size 0 regardless of the value keyed. This problem has been fixed.

The problem that caused the $CUS Install Mail Handling option to fail on an SSD volume has been fixed.

- $DIR now offers a Next Page option when more than 90 sub-volumes are displayed in a domain listing.

  The problem that caused $DIR to fail with EXIT 803 AT 26CE if the "I" instruction is attempted on a volume larger than 999,999,999 bytes has been fixed.

  The problem that caused $DIR to fail with a STOP 302 if a unit address of "? " is specified has been fixed.

- $DIRP occasionally forgot the name of the Supervisor program after the use of the <F2> option and returned to the READY: prompt on exit instead of returning to the menu. This problem has been fixed.

  After keying "A" for alpha sort, keying <F1> appeared to be using the original order of files when determining the options to display. This problem has been fixed.

  A problem which caused the $DIRP Run Library menu option to display random characters at the end of the list of library members has been fixed.

- $DLIB has been recoded to correct the problems that occur after members have been deleted from a Data Library.

- $F now includes a multiply function, in addition to the increment, decrement and percentage functions, to the reply to the SIZE: prompt.

- $L now allows the reply to the PRINT UNIT prompt to include a lower-case letter.

  A reply of "n" to the WIDE REPORT? prompt is no longer treated as "Y".

- $MAIL has been improved to include a "<CR> for Next" option in the base-line prompt for the inspect telephone message screen.

  The dialogue for the $MAIL Reorganise Mail file included some messages that disappeared from the screen very quickly. This dialogue has been improved to allow these warning messages to be read.

  A reply of <CR> to the "List of Customised Operators" allows a

supervisor to customise his/her own mailbox.

The reply to the base-line prompt displayed by the $MAIL file organisation option is now correctly validated so that any reply other than "R" or <ESC> is treated as invalid.

On a non-LAN configuration, a spurious "time" message was displayed on the $MAIL mailbox customisation screen.

The $MAIL send mail dialogue has been improved to prevent accidental loss of a mail message.

The problem that caused a spurious message ITEM ALREADY EXISTS to appear when redirecting telephone messages has been fixed.

Several cosmetic problems when reading Group mail have been fixed.

A new option, Mark, has been added to the base-line prompt on the Read Mail screen to allow the current message to be marked as "read" before displaying the next message.

- $MH, the Menu Handler, now allows up to 8 databases to be specified when loading a Speedbase frame (the previous limit was 4). A new "line type code" of "E" has been allocated for this purpose and must be specified when using Menu Maintenance (i.e. MN) to load a Speedbase frame that requires more than 4 databases.

  If the menu handler could not assign the required logical to physical assignments, it purged the assignment table. The menu handler has been improved to include an option to suppress the automatic assignment table purge. This option is selected by replying N to the new "Purge unit assignments if full" prompt in the Amend Menu Parameters option of MN.

  The menu handler could not handle nested menus in SAA-style on colour screens. Spurious blocks of colour sometimes appeared. This problem has been fixed.

- $REORG now checks for open files before attempting to reorganise Separated Subunit Domains.

  $REORG also forbids any attempt to truncate DMAM data files.

- $SP has been improved. When the Delete option has been selected, only a reply of "Y" will confirm deletion.

- <SYSREQ> I now allows an assignment of the form *xxn* (where *xx* are both alphabetic and *n* is numeric e.g. AB1).

- <SYSREQ> N now displays telephone messages on non-LAN configurations.

The problem that caused <SYSREQ> N to occasionally fail to recognise valid groups has been fixed.

The following problems in V8.1 Global Configurator have been fixed in revision V8.1c:-

- The problem that caused a PGM CHK 11 at 3CC4 to occur in CFUPDATE if an attempt is made to add another printer, if unit 599 has just been added, has been fixed.

- The maximum usable Printer Buffer length is 254. CFUPDATE now forbids any attempt to configure printer buffers larger than 254.

- The following prompts may appear in the NUCLEUS OPTIONS section of the configuration file:-

  DYNAMIC DA-BLOCK ALLOCATION (N):
  DC/DF-BLOCKS IN HIGH MEMORY (N):

  These flags are both reserved for future use. DO NOT ATTEMPT TO MODIFY THEM.

The +J0 nucleus library has been re-released to include 1 new component and upgrades to 3 existing components. All 4 new components are identified by the version V8.1E in their library member titles.

- The new component, +J0NS78, is required to implement the extended ASSIG$ table;

- The Steering Routine, +J0S000, has been modified to implement the extended ASSIG$ table;

- The Printer Executive, +J0EE00, has been repackaged to fix the problem that caused alignment patterns to lose pagination (see below);

- The File Executive, +J0EA00, has been modified to improve the situation described in Global Technical Bulletin GT738 (14th February 1995) concerning the number of files per subvolume. When a subvolume is created using the V8.1E File Executive, the number of files per directory is written to the directory. If the V8.1E File Executive detects that the files per directory in the directory is different from that defined in the configuration file ERROR v will be returned.

During the period of the V8.1c development some problems in GSM V8.1 were reported which have not been fixed for V8.1c. Resellers should be aware of the following problems in GSM V8.1:-

- All V8.1 GSM (MS-DOS) configurations include a single SSD-FILE simulated hard-disk with volume format T259Z. Some existing V7.0 and V8.0 sites are using volume format T151Z. An ERROR Z will result if an attempt is made to access a T151Z volume as format T259Z.

A new GSM (MS-DOS) utility, GLUPDDF, is available on the BBS to upgrade a "T151Z" format MS-DOS directory (e.g GSM200) to the "T259Z" structure.

- GSM V8.1 is distributed on high-capacity diskettes. For 3.5" formats GSM V8.1 is distributed on 1.44Mb "O2A" format diskettes. Some existing V7.0 and V8.0 systems were installed from 720Kb "B3B" format diskettes. Such sites have the $BA logical unit assigned to physical unit 170 (i.e B3B format). If a "B3B" site is upgraded to GSM V8.1 and the save/restore customisation option is selected, after the installation of GSM V8.1, $BA will remain assigned to 170 (i.e. format "B3B") rather than 140 (i.e. format "O2A"). Several GSM utilities (e.g. $CUS) expect the BACRES, BEA, HAA etc. diskettes to be accessible as unit $BA and will fail if this logical assignment is incorrect.

  This problem can be easily solved by using the $CUS Permanent Unit Assignment option to set $BA to 140 (and reloading GSM). Alternatively, the following post restore customisation job, $$$JOB, can be used to set $BA=140 automatically during the upgrade installation:-

  ```
  JOB $$$JOBSet $BA to 140
  DIALOG DIVISION
  :$CUS :2 :8 :$BA :140 :<CR> :<CR> :<CR>
  ENDJOB
  ```

- After installing GSM V8.1, the library stubs to the Development Libraries are deleted.

  There are no plans to fix this "problem". In general, after upgrading GSM to V8.1, the Speedbase and Cobol Development software should also be upgraded.

- Some Global Windows Workstation passwords printed on Advice Notes were invalid. All passwords must start with the letter "W".

  The Advice Note print option in our Internal Admin System has been corrected to produce valid passwords.

- Attempts to print to a physical printer result in an irrecoverable ERROR Z.

  This problem is caused by an insufficient number of PRINTER TRANSLATION TABLES. For GSM V8.0, and earlier, these translation tables were allocated from the pool of PRINTER BUFFERS. For GSM V8.1, the PRINTER TRANSLATION TABLES must be defined explicitly in the Nucleus Section of the Global Configuration file. Use either CFUPDATE or $CUS/Configuration Maintenance/Printer Buffers to set the number of PRINTER TRANSLATION TABLES to be equal to the number of printers configured.

  Important note: For all V8.0, and earlier, configuration files

currently installed; and for all configuration files distributed with GSM V8.1, the number of Printer Translation Tables will be set to 1. The following zap (Z.81J00E) modifies the V8.0 default from 1 to 10 in the V8.1B Printer Executive and thus fixes the ERROR Z problem for all those sites with fewer than 11 printers:-

```
ZZZZZZ
GVWYZN
GXPGDL
HGQGSM
GXNFTG
QJWLML
VYZPKF
QPWGGG
WCDGWD
XRQHGQ
XXDZFH
ZLWKXQ
VMYPKT
FVKHSS
```

- A PGM CHK 12 at 83C0 can sometimes occur when selecting a menu entry that invokes another menu file.

  This problem is caused by a basic design feature of the menu handler and has NOT been fixed for revision V8.1c. The problem occurs when the "effective stack size" of a menu has been increased to a size larger than that of the item currently on the stack. The "work-around" solution is to ensure that all menu files on a system are of the same size. If the size of a menu file is increased, ensure that ALL users are signed off and run Menu Maintenance from the GSM READY: prompt.

- $MAIL fails with STOP 8824 DATABASE FULL if the $$MAIL file is copied from the HAA diskette to the $ML volume.

  Do not attempt to install $MAIL by copying the default $$MAIL file using $F/COP. The GSM mailing system should only be installed during GSM installation or by using the System Maintenance option of $CUS.

- There appear to be severe problems when GSM V8.1 is used to print alignment patterns. Although the alignment pattern is printed correctly, the actual printed forms are printed too high on the page.

  This problem is caused by a bug in the V8.1 Printer Executive. The problem is fixed in the V8.1E Printer Executive (see above). The following zap (Z.81J01E) fixes the problem in the V8.1B Printer Executive.

```
ZZZZZZ
GVWYZN
GXPGDL
HGQGSM
GXNFTG
QJWGZP
XVMRWY
QMHPVY
YPZJVQ
FJDMYB
```

- The following files may be missing from the EPA diskette:-

```
++3         P.$BAPGS        P.V3DEMO        S.V3DEMO
DIDEMON   DBDEMON  DBDEMON1
```

  This problem was caused by a bug in our internal Administration System. The problem was fixed during May-1995 so no software generated since then will suffer from the problem. If an EPA diskette lacks these files a re-generation will be necessary.

- Attempts to run $BYE in partition 1 may fail with spurious PARTITION *N* IN USE messages when the "in use" partitions are displaying the main menu. This "problem" is a side-effect of a modification made to the menu handler for GSM V8.1.

  The difference between GSM V8.1 and V8.0 is caused by the fixing of a bug in the V8.0 menu handler: Each menu contains two levels of "Allow log off" control. The "Allow logoff" flag in the Amend Menu Parameters function (i.e option 5 from the MN menu) is the primary log-off flag. The "Allow log off" flag in the Amend Menus function (i.e option 1 from the MN menu) is the secondary log-off flag. The secondary log-off flag is only tested if the primary flag is set to "Y".

  The logic in the V8.0 menu handler was as follows:-

```
IF primary-flag = "Y" THEN
    IF secondary-flag = "Y" THEN
        CALL LOGOF$          * ALLOW LOG OFF
    ENDIF
ELSE
*   Do nothing at all
ENDIF
```

  For the V8.1 menu handler this code was changed to:-

```
IF primary-flag = "Y" THEN
    IF secondary-flag = "Y" THEN
        CALL LOGOF$          * ALLOW LOG OFF
    ELSE                     * SECONDARY FLAG = N
        CALL NLOGOF$             * PREVENT LOG OFF!!!
    ENDIF
ELSE
*   Do nothing at all
ENDIF
```

  The V8.1 logic causes the menu to function in a way that agrees with the V8.0 & V8.1 documentation.

  To summarise the behaviour:-

Prim' flag	Sec' flag	V8.0	V8.1
Y	Y	Logoff allowed	Logoff allowed

Y	N	**Unpredictable**	Logoff disabled
N	Y	Unpredictable	Unpredictable
N	N	Unpredictable	Unpredictable

The code for V8.1 was changed to prevent the unpredictable behaviour (shown in emboldened text) that occurs with GSM V8.1. Under these conditions the "Allow log-off" status is dependent on the last program that was run from the menu, which was regarded as a definite bug.

GSM V8.1c is available free of charge for all users on service who are upgrading from GSM V8.1.