Updating 16-bit Global Applications ($UNPACK)

1. Introduction

We have recognised the difficulties involved in creating a "fully up-to-date" Global 3000 V4.5 G3PROG program unit. These difficulties are largely caused by the problems involved in applying large numbers of Autozaps to an installed site on a regular basis.

Until recently, the Service Centre produced "updated" Global 3000 V4.5 program libraries that were available for download from the Global web-site. However, both the update library creation process and the update library application process were time-consuming and potentially error-prone.

Some recent improvements to our internal systems have made it possible for us to easily, and reliably, distribute a complete set of fully up-to-date Global 3000 V4.5 program libraries directly from our internal product masters. Throughout this note a program library produced directly from our internal masters will be referred to as a Master Program Library (MPL).

It is our intention to release a complete set of fully updated Global 3000 V4.5 program libraries (MPL's) on every new version of the monthly Global Product Set (GPS) CD. These MPL's are "activated" using a new utility, $UNPACK.

A copy of the most recent Autozaps database is also available on the monthly Global Product Set (GPS) CD. Please refer to this database to obtain a list of the fixes that have been applied to Global 3000 V4.5 program libraries.

This mechanism has been designed for upgrading Global 3000 V4.5 on GSM (Windows) configurations. However, it is also suitable for other Global products (e.g. Global Payroll). Furthermore, with a few file renames, that are fully described below, the $UNPACK utility can also be used on GSM (Unix), GSM (Novell) and GSM (DOS) configurations. However, $UNPACK **cannot** be used on GSM (BOS) configurations.

Of course, $UNPACK, is **not** required for Global 3000 V5.0, where the superior Global Product Service Pack mechanism is already available.

The $UNPACK utility was formally released with GSM V8.1I Service Pack 6, and is included in all later service packs. The version of $UNPACK that was available, as file UNPACK.GSM, on the GPS CD has been withdrawn.

Important Note: $UNPACK will only function on GSM V8.1i, or later.

2. The Master Program Libraries (MPL's)

The MPL's for each Global 3000 V4.5 product are held in a separate Global Cabinet File (GCF). Each GCF is released as a standard Windows file and contains all the software components for a particular module.

The naming convention for a Global Cabinet File is as follows:

ppvv_yymmrr.GCF

where:
pp	Product Code (e.g. ZM)
vv	Version Number (e.g. 45)
yy	Year Number of release (i.e. 00=2000; 01=2001 etc.)
mm	Month Number of release (01 to 12)
rr	Revision Number of release (01 to 99)

For example, the September-2001 first release of the ZM V4.5 product will be:

ZM45_010901.GCF

Note that the various GCF's for a particular Product Code/Version Number combination naturally collate in order of release revision.

The following screen shot shows a series of Global 3000 V4.5 GCF's:
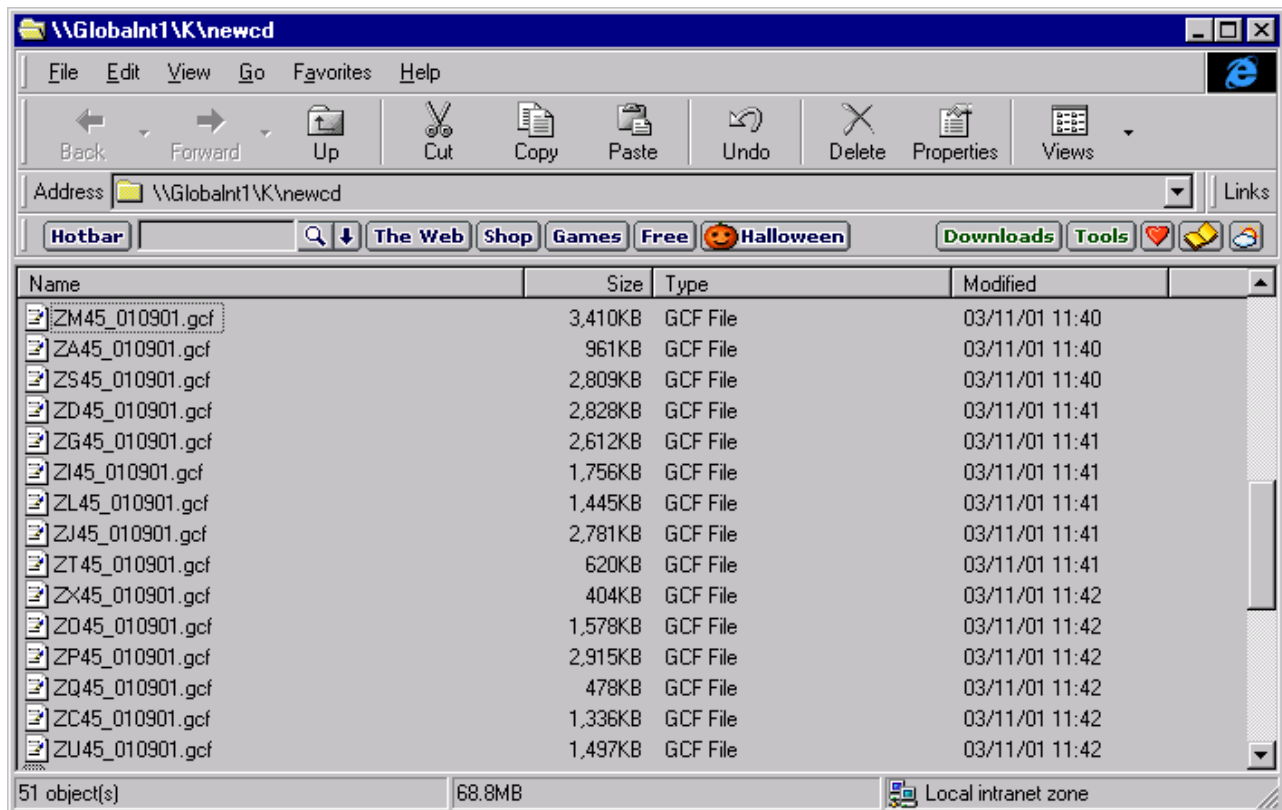
Important Note: The GCF's for Global 3000 V4.5 are internally very different from the GCF's for Global 3000 V5.0.

For Global 3000 V5.0 the **Installation GCF's** contain a pre-installed version of the product which is licenced/activated using $LICENCE; and subsequently installed using $INSTALL (as described elsewhere).

For Global 3000 V4.5 the **Update GCF's** contain a series of Master Program Libraries, and sundry other files, which are directly extracted using $UNPACK (as described in this document).
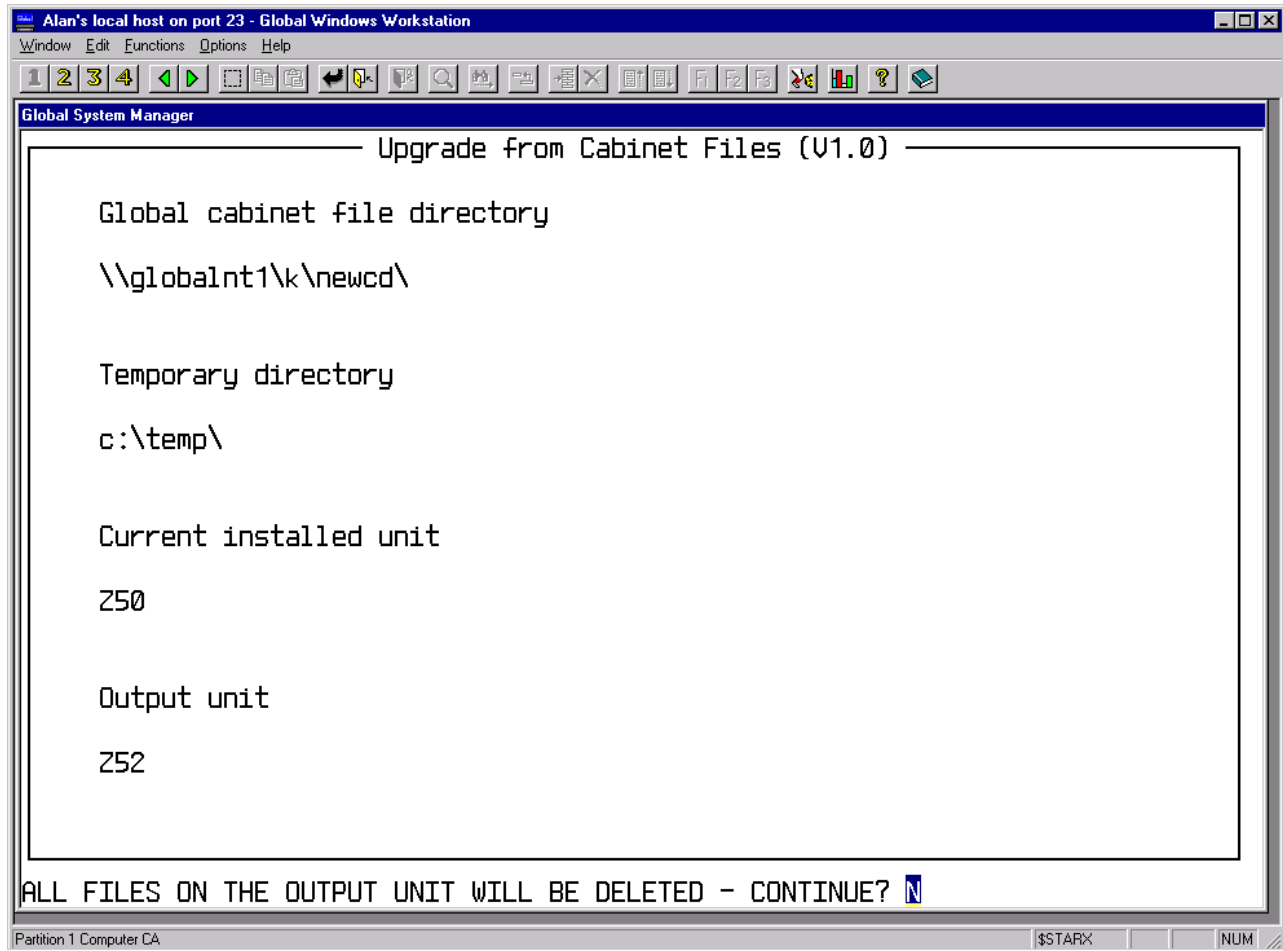
The various software that accesses GCF's (e.g. $UNPACK, $LICENCE, $INSTALL) always checks that the GCF is of the expected type (i.e. $UNPACK only recognises Update GCF's; $LICENCE and $INSTALL only recognise Installation GCF's).

3. Using $UNPACK
The way in which $UNPACK is used depends on the host operating and whether $UNPACK is being used on an end-user's PC or on a reseller's PC.

In all cases, the actual task performed by $UNPACK is simply to extract all the Global files from the *relevant* Update GCF files into a single work unit. A typical Global V4.5 Update GCF contains menu files and other miscellaneous files in addition to the Master Program Libraries (MPL's). All these files are extracted to the work unit by $UNPACK. As the MPL's are copied from the GCF to the work unit, they are reserialised to the Target Serial Number.

$UNPACK determines which Update GCF's to process and the Target Serial Number by examining an installed G3PROG unit. This Template Program Unit must be on the same network as the PC that is being used to run $UNPACK.
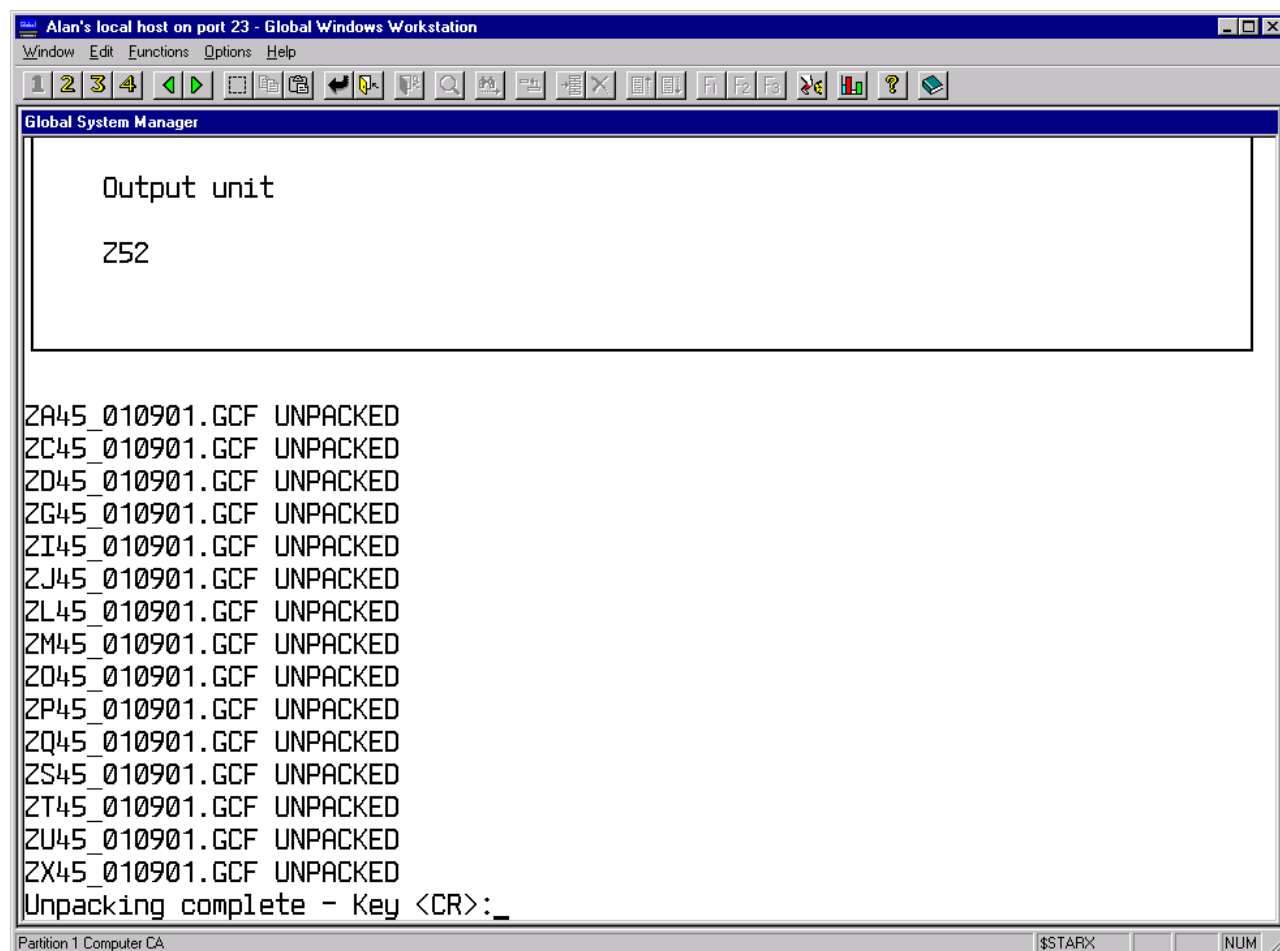
```
Alan's local host on port 23 - Global Windows Workstation                    _ □ ×
Window  Edit  Functions  Options  Help
 1 2 3 4  ◄ ►  □ ▣ ▣  ↵ ↴  ▦  Q  ▩  ▤  ▥ X  ▦ ▦  F₁ F₂ F₃  ✂ ▐▌  ?  ◆
Global System Manager

                  ─ Upgrade from Cabinet Files (V1.0) ─

      Global cabinet file directory

      \\globalnt1\k\newcd\


      Temporary directory

      c:\temp\


      Current installed unit

      Z50


      Output unit

      Z52



ALL FILES ON THE OUTPUT UNIT WILL BE DELETED - CONTINUE? N
Partition 1 Computer CA                                    $STARX            NUM
```

The initial screen displayed by $UNPACK contains the following prompts:

Global cabinet file directory This is the host o/s directory that contains the Update GCF's. This is usually the root directory of the GPS CD;

Temporary directory $UNPACK requires a temporary host o/s directory. This directory is NOT scratched by $UNPACK;

Current installed unit This is the current Global 3000 V4.5 Program Unit (or a copy of a Global 3000 V4.5 program unit). For example, G3PROG. $UNPACK uses this unit as a Template Program Unit and scans it to determine which GCF's need to be unpacked;

Output unit The reserialised MPL's and other miscellaneous files are copied to this unit. **THIS UNIT, WHICH MUST BE AT LEAST 30MB, IS SCRATCHED BY $UNPACK BEFORE THE EXTRACTION PROCESS COMMENCES**.

$UNPACK saves the last set of parameters used (these customisations are held in file $$UPGLOG on unit $M). The $$UPGLOG file is private to $UNPACK - there is no need to access or maintain it in any way.

$UNPACK also writes a record to the Event Log File if the Global Event Logging option has been enabled.

For every GCF that requires to be processed, $UNPACK displays a message to indicate that it has been unpacked. For example:

```
Alan's local host on port 23 - Global Windows Workstation          _ □ ×
Window  Edit  Functions  Options  Help
 1 2 3 4  ◄ ►  ▢ ▤ ▣  ↩ ↴  ▦ ◌ ▦  ▦ ▦ ▦  ▦ ▦ ▦  ▦ ▦  ? ◆
Global System Manager

      Output unit

      Z52



 ZA45_010901.GCF  UNPACKED
 ZC45_010901.GCF  UNPACKED
 ZD45_010901.GCF  UNPACKED
 ZG45_010901.GCF  UNPACKED
 ZI45_010901.GCF  UNPACKED
 ZJ45_010901.GCF  UNPACKED
 ZL45_010901.GCF  UNPACKED
 ZM45_010901.GCF  UNPACKED
 ZO45_010901.GCF  UNPACKED
 ZP45_010901.GCF  UNPACKED
 ZQ45_010901.GCF  UNPACKED
 ZS45_010901.GCF  UNPACKED
 ZT45_010901.GCF  UNPACKED
 ZU45_010901.GCF  UNPACKED
 ZX45_010901.GCF  UNPACKED
 Unpacking complete - Key <CR>:_
Partition 1 Computer CA                              $STARX         NUM
```

Various error messages of the form:

> INTERNAL ERROR, CODE *x*

may appear if the GCF is corrupt or has become damaged. Please quote the full error message accurately when reporting a problem with $UNPACK.

3.1   Using $UNPACK on GSM (Windows)

$UNPACK has been designed for use with GSM (Windows). No GCF file renames should be necessary. **Important Note:** If the GCF's are copied from the GPS CD then ensure

that the "master" GSM81_*yymmrr*.GCF file is copied together with the various Z?45_*yymmrr*.GCF files. If the "master" GSM81_*yymmrr*.GCF is not present on the Global cabinet file directory the following error message will be displayed:

GSM CABINET FILE NOT FOUND

3.2   Using $UNPACK on GSM (Unix)

The GPS CD is not directly accessible on a GSM (Unix) configuration. The contents of the CD must be copied to a Unix directory on the computer running GSM (Unix). When copying from the GPS CD to a Unix directory you must ensure that:

- All the GCF's are renamed to include only upper-case characters (i.e. unlike Windows, the case of a Unix filename is significant). The following Unix Bourne-shell script can be used to rename all the files in a directory to upper-case:

```
for A in *.*
do
        B=`eval echo $A | tr "[a-z]" "[A-Z]"`
        if test $A = $B
        then
                echo "File $A is already upper case"
        else
                echo "Renaming $A to $B"
                mv $A $B
        fi
done
```

- The "master" GSM81_*yymmrr*.GCF must be copied together with the various Z?45_*yymmrr*.GCF files.

3.3   Using $UNPACK on GSM (Novell)

Although the GPS CD is directly accessible on a GSM (Novell) configuration, the GCF naming convention does not comply with the strict 8.3 filename required by 16-bit GSM (Novell). The contents of the CD must be copied to a Novell/MS-DOS directory. When copying the GCF's from the GPS CD to a Novell directory you must ensure that:

- All the GCF's are renamed to remove the underscore character, and all the characters after the underscore. For example, ZA45_010901.GCF must be renamed to ZA45.GCF;

- The "master" GSM81_*yymmrr*.GCF must be copied, and renamed, to GSM81.GCF.

3.4   Using $UNPACK on GSM (MS-DOS)

Although the GPS CD is directly accessible on a GSM (MS-DOS) configuration, the GCF naming convention does not comply with the strict 8.3 filename required by GSM 16-bit (MS-DOS). The contents of the CD must be copied to an MS-DOS directory. When copying the GCF's from the GPS CD to an MS-DOS directory you must ensure that:

- All the GCF's are renamed to remove the underscore character, and all the characters after the underscore. For example, ZA45_010901.GCF must be renamed to ZA45.GCF;

- The "master" GSM81_*yymmrr*.GCF must be copied, and renamed, to GSM81.GCF.

3.5   Using $UNPACK on GSM (BOS)

$UNPACK is not supported on GSM (BOS) configurations. In order to use $UNPACK to update a Global 3000 V4.5 Program Unit (e.g. G3PROG) on a GSM (BOS) PC the following steps must be followed:

1.   Copy the Global 3000 V4.5 Program Unit (e.g. G3PROG) to a configuration that is supported by $UNPACK;

2.   Use $UNPACK to update the Program Unit;

3.   Copy the updated Global 3000 V4.5 Program Unit back to the GSM (BOS) PC.

4. After Using $UNPACK

$UNPACK only extracts (and reserialises) the appropriate MPL's to the Output Unit. **$UNPACK DOES NOT UPDATE THE GLOBAL 3000 V4.5 PROGRAM UNIT**. When $UNPACK has been used the Program Unit **MUST** be updated by selectively copying the MPL's from the Output Unit to the Program Unit. The selective copy is necessary in case any of the standard program libraries on the Program Unit have been updated with tailored or customised frames. If a Program Unit has not been tailored then simply copying all the MPL's from the Output Unit to the Program Unit will complete the update process.

In addition to the MPL's (i.e. program library files e.g. P.CL3000, P.CL3001) $UNPACK also unpacks a variety of other files (e.g. Menus, data dictionaries and the DBDATA database). These non-library files may also have to be copied to the G3PROG or G3DATA units.

5. Using $UNPACK on a Reseller's PC

The simplest use of $UNPACK involves running the utility on the actual PC, or network, that has Global 3000 V4.5 installed. However, it may not always be possible, or desirable, to send a copy of the GPS CD to an end-user.

$UNPACK can be used to upgrade an end-user's Program Unit on a resellers's PC. This is achieved as follows:

1.   Copy the Program Unit from the end-user's PC to the reseller's PC;

2.   Run $UNPACK on the reseller's PC supplying the end-user's Program Unit as the "Current Installed Unit";

3.   Once $UNPACK has completed, update the end-user's Program Unit from the contents of the Output Unit;

4.   Copy the Program Unit back to the end-user's PC from the reseller's PC;