CONVERGENT TECHNOLOGIES

RELEASE NOTICE FOR MULTIPLAN
Version 8.3 (ST-200)

Revised April 25, 1985

1.0 Description of Programs

This Release Notice describes Multiplan version 8.3. This section and the sections that follow provide a description of the product, contents of the Distribution Diskette, installation procedures, and other information pertinent to this release of Multiplan.

The Multiplan Distribution Diskette is your master copy and has been shipped write-protected. It should not be write-enabled nor used as a working copy.

The Multiplan requires the Standard Software at revision level 9.0 or higher to function correctly. If you have not yet installed Standard Software at such a revision level, do so before installing 8.3 Multiplan. Multiplan 8.3 works on AWS, IWS and NGEN and CWS workstations.

The maximum sheet size of Multiplan will increase as it is provided with more memory in which to run up to a maximum of 182K. Therefore, maximum sheet size can be increased in a limited memory system by configuring a swapping version operating system that excludes, if unneeded, the debugger, parallel line printer services, and local file services as described in the System Programmer's Guide.

2.0 Changes from Prior Version

Multiplan 8.3 contains new byte streams which allow direct printing through the serial port on CWS machines. When setting up your Sys.printers file to print through this port, you should use "[Ptr]A" as a device spec.

Multiplan 8.3 contains new byte streams which allow direct printing through the XC002 serial port expander module on NGEN machines. When setting up your Sys.printers file to print through this module, you should use "[Ptr]1A", "[Ptr]1B", "[Ptr]1C", "[Ptr]1D" as device specs for the first XC002 and "[Ptr]2A", "[Ptr]2B", "[Ptr]2C", "[Ptr]2D" as device specs for the second XC002.

2.1 Changes from Release 8.0

A. In earlier releases, if there was almost no free space and a major change to the sheet is initiated, Multiplan would sometimes crash the operating system or fail in other ways (invalid data placed in sheet, infinite loop).

B. Multiplan interaction with the Spooler has been corrected. Previous versions made improper use of banners in the presence of errors, reported inadequate information during printer failures, and had process priority inconsistencies with the spooler.

C. Graphics interaction has been improved. Palettes survive various previously destructive operations (Transfer Load, GRAPH command cancellation, etc.).

3.0 Contents of Distribution Diskette(s)

The Multiplan Distribution Diskette is your master copy, and has been shipped write-protected. It should not be write-enabled, nor should it be used as a working copy.

Multiplan 8.3 requires CTOS 9.1 or higher, unless your system is a CWS (in which case it requires CTOS 9.4 or higher). If you have not yet installed the latest version of CTOS, do so before installing Multiplan.

If you are going to use the Graph Command, Multiplan requires the Business Graphics Package and special Graphics hardware.

The Distribution Diskette contains the following files in the <CT> directory:

Multiplan.run   Multiplan.Data
Multiplan.Pcode   Mp.Hlp

The Distribution Diskette also has the directory <ReleaseNote> with the following file:

ReleaseNote

In addition to various standard system files, the Distribution Diskette contains the following files in the <Sys> directory:

HdInstall.sub   Sys.Printers
FdInstall.sub   PtrBConfig.Sys
InitMultiplanData.sub   LptConfig.Sys
FloppyInit.sub

The <Tutorial> directory contains files used in the tutorial in the Multiplan Reference Manual. These files are not required for proper operation of Multiplan. If needed, copy these files to your working directory.

Spencer.mp   Expenses.mp

4.0 Installation Procedures

Multiplan should only be used on Convergent Information Processing Systems which are equipped with hard disk <or dual floppy disks>, or in clusters where the master is equipped with hard disk.

Installation procedures have been provided for IWS, AWS, and NGEN Hard Disk Systems configured as Stand-Alone, Cluster Master, or Local File System.

Use the installation procedures described below (after updating the Standard Software revision level, if required). Characters that you must type are shown in **boldface**. Special keys, such as RETURN and GO, are shown in upper case.

4.1 Stand-Alone Hard Disk Systems

A. Signon and set path at the standalone workstation. If the Signon form is displayed, fill it in and press GO. Set the path as follows:

```
Command        Path   RETURN
Path
    [Volume]                   Sys   RETURN
    [Directory]                Sys   RETURN
    [Default file prefix]      RETURN
    [Password]                 (if any)   GO
    [Node]
```

If your hard disk has a volume password on [Sys], fill this password into the [Password] field before pressing GO.

B. Insert the Multiplan Distribution Diskette in drive [f0] and install Multiplan as follows:

```
Command        Submit   RETURN
Submit
    File list               [f0]<Sys>HdInstall.sub GO
    [Parameters]
    [Force expansion?]
    [Show expansion?]
```

C. Remove the Multiplan Distribution diskette and save it as an archive.

4.2 Master Hard Disk Systems

A. Signon and set path at the master workstation.
    If the Signon form is displayed, fill it in
    and press GO. Set the path as follows:

```
Command     Path  RETURN
Path
   [Volume]                 Sys  RETURN
   [Directory]              Sys  RETURN
   [Default file prefix]    RETURN
   [Password]               (if any)  GO
   [Node]
```

If your hard disk has a volume password on
[Sys], fill this password into the [Password]
field before pressing GO.

B. If you have a cluster system, disable the
    cluster workstations as below:

```
Command     Disable Cluster  GO
Disable Cluster
   [Time Interval (seconds)]
```

At the conclusion of the installation proce-
dure, you may resume the cluster operation
with the Resume Cluster command.

C. Insert the Multiplan Distribution Diskette in
    drive f0 and install Multiplan as follows:

```
Command     Submit  RETURN
Submit
   File list          [f0]<Sys>HdInstall.sub  GO
   [Parameters]
   [Force expansion?]
   [Show expansion?]
```

D. Remove the Multiplan Distribution diskette and
    save it as an archive.

E. You may now invoke the Resume Cluster Command
    to restart cluster operations.

```
Command     Resume Cluster  GO
```

5.0 Required Files

The Multiplan Distribution Diskette installation
submit files do not copy any printer configuration
files so as not to overwrite existing
configuration files. These files are included as
examples, and should be used only if they are
correct for your particular configuration (see
your System Administrator). If you are installing
Multiplan for the first time, copy 'Sys.Printers'
from the [f0]<Sys> directory of the Distribution
Diskette into your [Sys]<Sys> directory. A
description of instructions on modifying this file
for your installation appears below in section 10.

A tutorial on the Business Graphics Package is
provided. If you wish to use this tutorial, copy
the sample spreadsheets from the <Tutorial>
directory of the Multiplan Distribution Diskette
to your working directory.

6.0 System Software Compatibility

6.1 Workstation Environment

Multiplan 8.3 requires CTOS 9.1 or higher, unless
your system is a CWS (in which case it requires
CTOS 9.4 or higher). If you have not yet
installed the latest version of CTOS, do so before
installing Multiplan.

If you are going to use the Graph Command,
Multiplan requires the Business Graphics Package.

7.0 Hardware Information

7.1 Hardware Configurations Supported

Multiplan 8.3 will function normally on an IWS, AWS, NGEN, or CWS.

7.2 Special Hardware Requirements

If you are going to use the Graph Command, Multiplan requires the appropriate graphics hardware for your system.

8.0 Resource Requirements/Utilization

8.1 Memory Requirements/Utilization

At load time, Multiplan makes configuration decisions based on available memory. Multiplan requires at least 105K of user memory (memory not allocated to CTOS or installed services) and can use up to a maximum of 187K. Performance improvements occur as the memory configuration increases from 158K to the 187K limit. Increases from 105K to 158K result in Multiplan being able to handle larger spreadsheets.

8.2 Disk Requirements/Utilization

Multiplan requires varying amounts of disk space depending on the number of spreadsheets you want to have available on line. A rule for determining spreadsheet disk space usage is the number of spreadsheets times 15 sectors for small sheets, 30 sectors for medium sized sheets and 60 sectors for large sheets.

Using Multiplan with the Business Graphics Package requires 129 sectors in the [Sys]<$> directory.

9.0   Restrictions

Multiplan does not operate on the MegaFrame SRP, but can be installed there for use by cluster workstations which load the program from a MegaFrame SRP master workstation. Multiplan is not supported on versions of CTOS prior to 9.1 for CT-Net support reasons.

10.0   Supplementary Information

10.1   Configuring the Sys.Printers File

The Sys.Printers file provided on the distribution diskette is only a representative example of a possible printer configuration for Multiplan. The actual contents of your Sys.Printers file depends greatly on your installation.

Note that the format of the Sys.Printers file has changed since Multiplan 7.1 to accommodate the Business Graphics Package, which uses this file for plotter information. Sys.Printers files with the old format will still function for installations without Business Graphics. The Word Processor also uses this file. The new format is as follows:

name: spec: text type: graphics type

Where   "name" is the friendly name for the printer
         or plotter

         "spec" is configuration information for the
         printer or plotter. Multiplan now supports
         alternative printer/spooler specs in this
         field, which means that if one print-
         er/spooler cannot print, the second one is
         tried. This is done by typing one spec,
         optional blanks, a comma, more optional
         blanks, then the second spec. For example:

         [SPL], [Lpt]&[Sys]<Sys>LptConfig.Sys

         The Sys.Printers file included in the
         Distribution Diskette contains alternatives
         for all printers. When using alternatives
         it is suggested that both specs be valid
         (although one erroneous spec will not cause
         a problem).

         "text type" is used by the Word Processor
         to determine the text type of the printer.
         A non-blank entry in this field indicates
         that this device is usable for printing
         (and can be used by Multiplan). Print-
         er/Plotters should have entries in both the
         third and fourth fields.

         "graphics type" used only by Business
         Graphics.

Here is an example of a Sys.Printers entry for a
line printer, using one of the example configura-
tion files included on the distribution diskette:

Lpt: [Lpt]&[Sys]<Sys>LptConfig.sys,[Spl]: Draft:

In addition, you must provide configuration files
for each type of printer which you have.
Multiplan does not copy any printer configuration
files for hard disk installations since it would
probably overwrite your own prepared files.

This Sys.Printers file format is common to Multiplan, Business Graphics, and the Word Processor. You may choose to use the same file for both the Word Processor and Multiplan. If you wish to do so, add the following text line to your .User Configuration File to change the Multiplan default printer file name (see the System Programmer's Guide):

:SysPrinters:[Sys]<Sys>Wp.Printers

A description of this file is provided in Chapter 8 of the Multiplan manual.

10.2 Verifying Multiplan Installation

While loading, Multiplan displays a banner at the center of the screen, and replaces it with a blank sheet when Multiplan is fully loaded. You can move the cell pointer (indicated by a bright highlight) around the screen by the down or right arrow keys. The sheet will automatically scroll if you reach the right or bottom edge of the screen.

Insert the Multiplan label strip (P/N 53-00094) on your keyboard.

Press the Help key to make sure that the Multiplan Help File is accessible. The help text should be displayed on the screen.

You should also verify the printer configuration files. Press the HOME key (f4). Enter data into the first cell of column 1. Press P (to select the Print Command), P (to select the Printer), and GO to confirm. The data should print on the default printer. Use the Print Options Command to select the other names for the printers (as specified in the Sys.Printers file) and make sure each printer is correctly configured.

If you have installed the Business Graphics Package, follow the instructions in Chapter 9 of the Multiplan manual to verify the correct functioning of Multiplan and Business Graphics.

You are now ready to use Multiplan. Refer to the Multiplan manuals for more information.

11.0 Known Errors and Omissions

A. Inserting, Moving, or Deleting columns and rows between cells which have been copied from a parent cell does not correctly update relative references. For example, suppose the formula r[-1]c is inserted in r2c1 and copied right 3 cells. Moving/Inserting/Deleting columns 1 through 5 yields erroneous results.

B. The Graph Command may propose responses which are invalid.

C. Blank cells are not always correctly handled when graphing Pie Charts.

D. Cells containing continuous formatting are not correctly handled by the Graph command.

E. The Graph command will abort and return to the Executive if it cannot access its temporary file, [Sys]<$>mp.tmp.xx.

F. If a spreadsheet has only one cell named and that cell is deleted, when attempting to name another cell the reference field displays #REF instead of the row and column number where the cursor is. (SPR A343)

   Workaround: TAB to the "REFER TO" field and either (a) type in the row and column number or (b) use the cursor keys to move out of the cell and back into it. Row and column will be displayed in the "REFER TO" field. <This section is required and describes any errors known to exist in the product as it is being released. If there are no known errors or omissions, it is permissible to say so.>