

**CONVERGENT TECHNOLOGIES**

**ENGINEERING UPDATE FOR  
1.0 EXTENDED MULTIPLAN**

Revised September 4, 1984

<b>SECTION</b>	<b>TITLE</b>	<b>PAGE</b>
1.0	Overview .....	2
2.0	Extended Multiplan Enhancements .....	3
	2.1 Performance Enhancements .....	3
	2.2 New Features .....	3
3.0	Compatibility with Standard Multiplan ..	5
4.0	Documentation Updates .....	6

## 1.0 Overview

Similar to standard Multiplan, Extended Multiplan serves as a powerful financial planning tool. It can be effectively used in budgeting, payroll, inventory, accounting, bidding and other business operations. It is an interactive program in which you can enter words, numbers and formulas. Multiplan rapidly computes, sorts and displays relevant information, eliminating the need for many hours of slow, tedious manual calculation.

Extended Multiplan, however, offers substantial performance improvements over Standard Multiplan. First, it has the capability to handle spreadsheets which are much larger; secondly, it runs substantially faster in a similar machine environment.

A number of new features have also been added. Extended Multiplan is better integrated with other Convergent Technologies software products, such as CT-MAIL and the Word Processor. Support for color graphics workstations has also been included.

The following sections discuss Extended Multiplan. They describe the differences between it and Standard Multiplan, the new features, and spreadsheet compatibility across the two versions.

## **2.0 Extended Multiplan Enhancements**

### **2.1 Performance Enhancements**

Extended Multiplan is capable of handling much larger spreadsheets than Standard Multiplan. The maximum sheet size remains the same (255 rows by 63 columns), but users can now create and manipulate a spreadsheet in which a greater percentage of the cells is used. This is because it uses all available memory in the current partition for spreadsheet storage rather than being limited to a maximum storage space of 64K.

Extended Multiplan is also much faster. It runs compiled code as opposed to Standard Multiplan's interpreted code. Many operations show dramatic improvement in the extended version, particularly Copy, Move, and Cell recalculation.

### **2.2 New Features**

- A. A new command, Print Exchange, has been added to Extended Multiplan. It allows spreadsheets to be saved onto disk in Document Exchange File (DEF) Format. These spreadsheets can be subsequently displayed by the Convergent Word Processor. Formatting information associated with the spreadsheet is preserved wherever possible. The DEF file will also be set up with page formatting based on the parameters indicated by the Print Margins command. In particular, the page length, print width, and print length specified by Print Margins will be used in determining the page layout of the resulting DEF file.

In all other respects, printing to a DEF file is similar to printing to an ordinary disk file or printer. The user can specify the area to be printed via the Print Options command. Extended Multiplan splits wide sheets into separate DEF pages similar to the pagination method used when printing.

To use Print Exchange, simply specify the file name in which to store the DEF-formatted spreadsheet. If a file of the same name exists, Multiplan displays the message "Press GO to overwrite existing file, CANCEL to cancel command." Press GO to start printing

of the DEF file. Press CANCEL to cancel the Print File command. Pressing CANCEL during the printing operation halts the printing to the disk file.

- B. Extended Multiplan includes CT-MAIL notification. It will display the message "You Have Mail" in the lower right-hand corner of the screen if the current user has just received incoming messages over the CT-MAIL system.
- C. Extended Multiplan will appear in color if run on an NGEN workstation equipped with a color monitor. Multiplan uses a set of four different colors to display row/column borders, data, commands, and error messages. An OEM kit can be purchased if different colors are desired.

Please note that color Multiplan on AWS graphics workstations is not supported.

### **3.0 Compatibility with Standard Multiplan**

Worksheets saved in Extended Multiplan (via the Transfer Save command) have a different binary format than worksheets saved in Standard Multiplan. This imposes a set of limitations regarding the use of a given spreadsheet with both versions.

Extended Multiplan can be used to operate on spreadsheets saved with Standard Multiplan. That is, Extended Multiplan will translate such a spreadsheet into the new format upon loading the spreadsheet into memory (via the Transfer Load command). The user can then use the spreadsheet in the normal way. As long as the user does not save the spreadsheet under the same name, it may still be subsequently used by someone running Standard Multiplan. It should be noted that the Transfer Load command in Extended Multiplan will take longer to complete if it involves a translation from the old binary format to the new. Thus, if it is desired to upgrade to Extended Multiplan exclusively, it is recommended that all relevant spreadsheets be translated into the new format. This can be accomplished by loading each spreadsheet into Extended Multiplan and immediately invoking Transfer Save.

Standard Multiplan, however, cannot be used to operate on spreadsheets saved with Extended Multiplan in the new format. If a user running Standard Multiplan attempts to load such a spreadsheet, the error message "File is not a saved worksheet" will be returned. If such a conversion is desired, the spreadsheet can be saved in symbolic (SYLK) file format while in the Extended version, and loaded as such through the Standard version.

The above rules apply to spreadsheets which depend on other spreadsheets through external links. If Extended Multiplan is used to load a spreadsheet which has external links to supporting sheets, all of those supporting sheets must be saved in the new format or else the error message "File is not a saved worksheet" will be displayed.

## 4.0 Documentation Updates

- A. Both Extended Multiplan and Multiplan 8.2 have been upgraded to take advantage of CT-Net. Users of these versions of Multiplan can Transfer Load, Save, Delete and Rename Multiplan spreadsheet files located on any and all nodes connected together through the CT-Net network. To refer to a remote Multiplan file, the user simply needs to include a node specifier as part of the file specification in the various Multiplan commands. The node specifier should be enclosed in curly brackets ('{}'). For more information on file specifications, see the CTOS Operating System Manual.

These versions of Multiplan also provide the capability to print spreadsheets to files on remote nodes (either normal or DEF) and to use remote graph format files when using Multiplan in conjunction with the Business Graphics Package. Again, the user simply supplies the node name in the file specification for the appropriate command.

For example, to print the spreadsheet Spencer to a disk file at the node named "Chicago", simply enter:

```
PRINT on file: {Chicago}[Win]<Sales>Spencer
```

- B. Multiplan displays several messages which are not listed in Appendix A of the Multiplan Reference Manual. They are listed below.

### Enter name on external sheet

**Cause:** An external Copy was attempted without specifying a named area or absolute reference from the supporting sheet.

**Action:** Supply an appropriate parameter to the external Copy command.

## **Error in calling Business Graphics**

**Cause:** Multiplan was notified of a serious error by the operating system while attempting to invoke the Business Graphics Package.

**Action:** See Appendix A of the CTOS Operation System Manual for an explanation of the status code.

## **Selection for groups and legends invalid**

**Cause:** The selections for groups and legends to graph do not form intersections from which complete data can be gathered for bar charts.

**Action:** Make sure the selections intersect. If groups are in rows, legends must be in columns, and vice versa.

## **Selection is ambiguous**

**Cause:** A group or legend specification for a bar chart contains incomplete information.

**Action:** Check to see that the selections for groups and legends intersect properly and that they do not overlap. This error usually occurs when a single row or column is selected for graphing.

## **Sorting directory files .....**

**Cause:** You pressed one of the direction keys on the cursor pad after invoking the Transfer Load operation.

**Action:** None. Multiplan is currently sorting the names of all spreadsheets files in the default directory. When sorting is complete, a list of all spreadsheets in the directory will appear on the screen.