CONVERGENT TECHNOLOGIES

**RELEASE NOTICE FOR
11.4 LINKER**

November 4, 1988

SECTION   TITLE   PAGE

1.0 Changes from Prior Version

1.1 SPRs Closed since release of the 11.3 Linker

   11433 If, in 2.2 C/CTOS, you declare a
          function to be "static", the Linker
          will generate an error of type 1 with
          an invalid offset (segment).

   12461 Linker (version 11.0) sometimes caused
          a protection fault (erc 80) when run
          in protected mode.

   12605 Linker (version 11.0) cannot
          accommodate as many PUBLIC symbols as
          earlier Linkers.

   12946 Attempts to allocate segments with the
          use of a Local Descriptor Table (LDT)
          cause the Bind command to fail with an
          erc 80.

1.2 Changes from Release 11.4 Linker

   A. Changes have been implemented to handle
       those object module constructs emitted by
       the Metaware Compilers that other CTOS
       compilers do not use.

   B.   The number of symbols that can be handled
        has been doubled.

   C. Code group fixups no longer generate bad
       code.

1.3 Changes from Release 11.3 Linker

For information on changes between pre-11.3
linkers and the 11.3 linker see the 11.3 Standard
Software Release Notice.

2.0 Contents of Distribution Media

The 11.4 Linker 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.

There is one distribution diskette supplied for the 11.4 Linker.

Linker Distribution Diskette 1 of 1:

In addition to the standard files created at IVolume, the following file will be in the <Sys> directory:

    HdInstall.sub
    InstallCommands.sub
    InstallRunFile.sub

The following file will be in the <CT> directory:

    Linker.run

The following file will be in the <ReleaseNote> directory:

    ReleaseNotice

3.0 Installation Procedures

The Linker should only be used on Convergent Information Processing Systems NGEN or SRP systems where the cluster or master is equipped with a hard disk.

Use the installation procedures described below. Characters that you must type are shown in **boldface**. Special keys, such as RETURN and GO, are shown in upper case.

3.1 Hard Disk System

A. Sign on and set path at the stand-alone 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 Linker Distribution Diskette 1 of 1 into drive [f0]. (Do **NOT** press the RESET button).

C. Install the product by invoking the Install command as follows:

    Command   **Install**   GO

D. Save the Linker Distribution Diskette as an archive.

4.0 System Software Compatibility

4.1 Software Configurations Supported

The Linker is compatible for use on all
workstations. To work correctly on these
environments, the workstation must be running the
following minimum versions of CTOS:

```
NGEN Series 186    9.1 or later
NGEN Series 286    9.7 or later or
                   VM 2.0 or later
NGEN Series 286i   VM 2.0 or later
NGEN Series 386    9.8 or later or
                   VM 2.0 or later
NGEN Series 386i   VM 2.2  or later
```

5.0 Hardware Information

5.1 Hardware Configurations Supported

The Linker runs on the following workstations

```
CWS;
NGEN 186, 286, 386 and
Series 286i and 386i.
```

6.0 Resource Requirements/Utilization

6.1 Memory Requirements/Utilization

The minimum amount of memory required to run the
Linker is a function of the program being linked.
Actually the Linker will use as much memory as is
available to it; usually the performance of the
Linker improves as the memory available to it
increases.

6.2 Disk Requirements/Utilization

At present, the Linker.run file requires 293
sectors (about 150k bytes) of disk space.

7.0 Known Errors and Omissions

A. If the list of object module names supplied to the Linker is approximately 6000 bytes, the Linker will generate a runfile with an invalid checksum. However, the Link command finishes with no error message. (SPR 13499).

B. Linker will not allow a module written in C/CTOS which calls static procedure that is defined in the module to be put in an overlay. This is because unlike other languages calls to static procedures in C/CTOS are FAR, the linker does not know how to deal with this. (SPR 10744)

C. Linker may generate a malformed runfile (incorrect prototype descriptors) if a code segment is included in a group. This error is of no consequence to most CTOS applications because code segments are not included in Medium and Large models of computation. However, MetaWare High C v1.4 can be configured to allow read only data in code segment; this feature of High C should not be used with this linker. (SPR 12828).

D. In protected mode, symbols will not work with the debugger for the memory models that group code segments together. Currently, the "small" and "compact" models available with HIGH C are the only models that fall into this category.