

# Software Product Description

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**PRODUCT NAME: OS/8 MACREL/LINKER, Version 1A**

**SPD 4.8.0**

## **DESCRIPTION:**

MACREL/LINKER is a machine language programming system. It is a superset of the OS/8 PAL8 assembler and absolute loader programs. MACREL is a macro assembler producing relocatable module. LINKER is a linking loader.

MACREL offers the following capabilities and features:

- Executes on any OS/8 configuration, although symbol tables are extremely limited in 8K-word configurations.
- Assembles current PAL-8 source modules with minor exceptions. For example, DTORG does not exist under MACREL, and certain CDF instructions do not assemble under MACREL as they do under PAL-8.
- Includes macros for program control of assembly functions, conditional assembly directives, program sectioning directives and user defined functions.
- Allows users to create MACRO definitions and call them in program modules.
- Allows users to create program consisting of program "sections." A program section can be located anywhere in memory, or restricted to particular pages or fields (or both) when loaded. Program sections can be absolute, relocatable, floating, data, page 0, or index register sections.
- Allows users to define repeat ranges which provide a convenient technique to repeat selected areas of assembly language code.
- Provides improved text creation capabilities at assembly time.

LINKER offers the following capabilities and features:

- Executes under any OS/8 configuration.
- Takes output from the MACREL assembler and creates an executable image file by creating a Core Control Block and appending the linked and relocated object code.
- Provides a structure for program overlays.
- If the user so designates, allocates memory for the user's program sections, overlays structures, or real-time tasks, and produces an optional load map of the result.
- Links global references among sections, drawing upon library components, if necessary.

## **MINIMUM HARDWARE REQUIRED:**

One of the following:

- PDP-8/A, E, F or M processor with:
  1. 8K words of memory
  2. one of the following mass storage systems:
    - RX8-E dual floppy disk system
    - RK05-J cartridge disk system
    - TD8-E dual DECtape system
  3. a console terminal
- DECstation 78/40

## **OPTIONAL HARDWARE SUPPORTED:**

None

## **PREREQUISITE SOFTWARE:**

One of the following:

- OS/8 Operating System, Version 3C or later
- OS/78 Operating System, Version 1 or later

## **OPTIONAL SOFTWARE SUPPORTED:**

None

## **TRAINING CREDITS:**

None

## **SUPPORT CATEGORY:**

B - Software Support will be provided as listed in the Software Support Categories Addendum to this SPD.

## **UPDATE POLICY:**

Software Updates, if any, released by DIGITAL during the one (1) year period following installation, will be provided to the customer for a media charge. After the first year, updates, if any, will be made available according to then prevailing DIGITAL policies.

## **ORDERING INFORMATION:**

This software is furnished under a license for use on a single CPU and can be copied and modified (with inclusion of DIGITAL's copyright notice) only for use on such CPU, except as may otherwise be provided in writing by DIGITAL.

Source and/or listing options are only available after the purchase of at least one binary license and after a source license agreement is in effect.

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The following key (C, Y) represents the distribution media for the product and must be specified at the end of the "Q" number, i.e., QF019-AC = binaries on DECtape.

C = DECtape  
Y = Floppy Disk

*Standard Options*

QF019 -A— Single-use license, binaries, documentation, support services (media: C, Y)

*Source/Listing Options*

QF019 -E— All sources (media: C, Y)

**ADDITIONAL SERVICES:**

None

D4.8.0