

# digital

# Software Product Description

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**PRODUCT NAME:** STRESS-11, Version 1A, Structural Analysis Program

**SPD 14.30.2**

**DESCRIPTION:**

STRESS-11 is an engineering application program used to analyze forces, reactions and displacements in structural designs. It executes under the RSX-11M, RSX-11D, IAS and RSTS/E operating systems. Typical uses include the analysis of building frames, bridge trusses, transmission towers, and floor systems.

Use of STRESS-11 requires no computer programming experience. Problem descriptions use engineering terms that are familiar to a structural engineer.

To use the package the engineer describes a structure with a coordinate system which can be either 2- or 3-dimensional. The engineer assigns a joint number and joint coordinates to each joint in the structure, and a member number and member incidences to each member in the structure. A member incidence identifies which two joints the member joins. The engineer then describes the physical properties of these members, the member and joint loads to be placed on the structure, and the support conditions for the structure. With this information, the program is capable of determining the joint displacements, joint reactions, and forces for the structures.

**MINIMUM HARDWARE REQUIRED:**

Any valid RSX-11M system, RSX-11D system, IAS system or RSTS/E system configuration which includes:

- at least one RK05-J disk that can be dedicated for STRESS data files and
- a 32K word minimum user area for task building (a 20K word user area is required for program execution).

**OPTIONAL HARDWARE SUPPORTED:**

Supports any mass storage, unit record or terminal device supported by the prerequisite software.

**PREREQUISITE SOFTWARE:**

One of the following operating systems:

- RSX-11M, Version 2.0 or later
- RSX-11D, Version 6B or later
- IAS, Version 1.0 or later
- RSTS/E, Version 6A or later

And one of the following language processors:

- FORTRAN IV, Version 1C or later
- FORTRAN IV PLUS, Version 2 or later

**OPTIONAL SOFTWARE SUPPORTED:**

None

**TRAINING CREDITS:**

None

**SUPPORT CATEGORY:**

C — Software Support will be provided as listed in the Software Support Categories Addendum to this SPD.

**UPDATE POLICY:**

No updates are planned for this product.

**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 a source license agreement is in effect.

The following key (D, E) represents the distribution media for the product and must be specified at the end of the "Q" number, i.e., QPA04-YD = sources and binaries on 9-track magnetic tape.

D = 9-track Magnetic Tape

E = RK05 Disk

*Standard Options*

*For RSX-11M, RSX-11D and IAS Systems:*

QPA04 -Y- Single-use license, source license, sources, no support services (media: D, E)

*For RSTS/E Systems:*

QPA07 -Y- Single-use license, source license, sources, no support services (media: D, E)

**ADDITIONAL SERVICES:**

None

**D14.30.2**