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Subject: STRESS Command
From: R. Logcher

Purpose

STRESS is a problem-oriented language for structural engineering. In its present form it performs primarily structural analysis, although it is developing into a computer-aided design system.

Reference

STRESS: A User's Manual; available from MIT press.

Implementation

STRESS is currently a command in the CTSS system. It consists of a short starter program and a number of links. For normal operation, the links are in PUBLIC file with the names STR(n) LINK. If the PUBLIC file is busy during an attempt to access a link, access attempts are continued and a console message is printed every 30 seconds.

For development purposes, the linking program has been written so that a user can be developing one or more links while using others from the PUBLIC file. If a copy of a needed link exists in the user's file directory, that copy will be used rather than the one in the PUBLIC file. At present the user cannot operate from a COMMON file

Modifications

Two statements have been added to the language in order to facilitate its use with time-sharing.

```
READ (FROM)(FILE)  NAME1  NAME2  
READ  CONSOLE
```

READ (FROM)(FILE) reads the input from a line-numbered file (which may have been created by INPUT). A single file should not contain more than a single problem specification (not beyond a SOLVE statement because, presently, all active files are reset to the beginning whenever a new link is loaded).

NAME1 NAME2 are the names of the disk file to be read. The names must begin with non-numeric characters other than commas, signs, or periods. The file is renamed .TAPE.1 for reading, but will be restored to NAME1 NAME2 by a different READ, (i.e., READ NAME3 NAME4) or by the statement STOP which calls EXIT. NAME2 is assumed to be DATA if not given.

READ CONSOLE transfers to read the input from the console.

Return to input from any part of the process, any error detection, or a single interrupt causes control to be returned to the console. The word TYPE. is given to indicate that a line of input is expected from the console.

NOTE:

The statements INPUT and EDIT are now available. They will function in the same way as the supervisor commands but the existing data structure will be saved and control will return to the console after the FILE command.