**PRODUCT NAME: RT-11/FORTRAN Enhancement Package for MINC, Version 1.1**

**DESCRIPTION:**

The RT-11/FORTRAN Enhancement Package for MINC is a complete FORTRAN Systems Software Package. It consists of seven components:

- **RT-11, Version 4.0 Real-Time Operating System** (Refer to SPD No. 12.1 for specifics)
- **FORTRAN IV/RT-11, Version 2.5 Compiler and Run-Time System** (Refer to SPD No. 12.10 for specifics)
- **SSP-11, Version 1.2 Scientific Subroutines Package** (Refer to SPD No. 15.45 for specifics)
- **LSP-11, Version 1.1 Laboratory Subroutine Package** (Refer to SPD No. 15.44 for specifics)
- **FDT — FORTRAN Debugging Technique**
- **INSTRUMENT Bus Subroutines, Version 1.1**
- **Real-Time control library for MNC-series modules (REAL-11/MNC)**

SSP-11 supplies over 100 subroutines written in FORTRAN IV that provide the user with a large cross-section of those mathematical and statistical routines commonly required in scientific applications.

**LSP-11 Processing Capabilities:**

- Peak processing
- Envelope processing
- Interval histogramming
- Interval histogramming with reference points
- Fast fourier transform
- Phase angle and amplitude spectrum analysis
- Power spectrum analysis
- Correlation (auto/cross) functions

FDT enables users at the console terminal to “debug” their FORTRAN programs at the FORTRAN level. FDT provides step-by-step control of execution of the program and the ability to examine and change the contents of any variable during program execution.

Instrument Bus Subroutines allow the user to control the IEEE Bus through commands that control data transfer via the IB11 or IBV11-A.

REAL-11/MNC library provides subroutines that control the following MNC-series modules:

<table>
<thead>
<tr>
<th>MODULE</th>
<th>DESCRIPTION</th>
<th>MAXIMUM NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>MNCKW</td>
<td>Programmable</td>
<td>2</td>
</tr>
<tr>
<td>MNCAD</td>
<td>Real-Time Clock</td>
<td>1</td>
</tr>
<tr>
<td>MNCAM</td>
<td>A/D Converter</td>
<td>1</td>
</tr>
<tr>
<td>MNCAG</td>
<td>Dual Multiplexer</td>
<td>7*</td>
</tr>
<tr>
<td>MNCAA</td>
<td>Preamplifier</td>
<td>5*</td>
</tr>
<tr>
<td>MNCDI</td>
<td>Digital Input</td>
<td>8</td>
</tr>
<tr>
<td>MNCOO</td>
<td>Digital Output</td>
<td>8</td>
</tr>
</tbody>
</table>

*MNCAD required

**NOTE:** The maximum number of MNC-series modules in use at any one time is eight.
Miscellaneous

Seven additional IBV11-A options (subject to slot availability).

NOTE: The software can communicate through only one unit at a time.

PREREQUISITE SOFTWARE:
None

OPTIONAL SOFTWARE:
Any software that utilizes the RT-11 Operating System, Version 4.0.

TRAINING CREDITS:
None

This is a complete FORTRAN software package and contains standard software kits but the training credits for RT-11/FORTRAN Enhancement Package for MINC are determined solely by this SPD.

SOFTWARE INSTALLATION:
DIGITAL INSTALLED
DIGITAL installation is required for Software Product Support. There is no charge for installation if performed at the time of system installation. DIGITAL installed software products, except for operating systems, are subject to an add-on installation fee when purchased subsequent to system installation.

SOFTWARE PRODUCT SUPPORT
RT-11/FORTRAN Enhancement Package for MINC includes standard warranty services as defined in the Software Support Categories Addendum of this SPD.

ORDERING INFORMATION:
All binary licensed software, including any subsequent updates, is furnished under the licensing provisions of DIGITAL's Standard Terms and Conditions of Sale, which provide in part that the software and any part thereof may be used on only the single CPU on which the software is first installed, and may be copied, in whole or in part (with the proper inclusion of the DIGITAL copyright notice and any DIGITAL proprietary notices on the software) only for use on such CPU. All source licensed software is furnished only under the terms and conditions of a separate Software Program Sources License Agreement between Purchaser and DIGITAL.

Options with no support services are only available after the purchase of one supported license.

A single-use license only option is a license to copy the software previously obtained under license.

The following key (H, Q, X, Z) represents the distribution media for the product and must be specified at the end of the order number, e.g., QJV32-AQ = binaries on RL01 Disk Cartridge.

- H = RL02 Disk Cartridge
- Q = RL01 Disk Cartridge
- X = RX02 Double Density Diskette
- Z = No hardware dependency

The following options are available as software enhancement products for MINC systems.

- QJV32 -A- Single-use license, binaries, documentation, support services (media: H, Q, X)
- QJV32 -C- Single-use license, binaries, documentation, no support services (media: H, Q, X)
- QJV32 -D- Single-use license only, no binaries, no documentation, no support services (media: Z)

Update Options

Users of RT-11/FORTRAN Upgrade Package for MINC-11 or users of FEP-11/FORTRAN Enhancement Package whose specified Support Category warranty has expired may order under license the following software update at the then current charge for such update. The update is distributed in binary form on the appropriate medium and includes no installation or other services unless specifically stated.

- QJV32 -H- Binaries, documentation (media: H, Q, X)
- QJV32 -H- Right to copy for single-use (under existing license), no binaries, no documentation (media: Z)

Miscellaneous Options

QJV32 -G- Documentation only kit (media: Z)

ADDITIONAL SERVICES:

Post-warranty Software Product Services for this software product are available with the prerequisite being the purchase of the RT-11 Self-Maintenance Service for Software. Customers should contact their local DIGITAL office for additional information.