## DIAB SOFTWARE.

### Fortran 77

Fortran 77 running under D-NIX provides an implementation of the full ANSI standard for the Fortran 77 programming language. The implementation is based on the X3.9-1978 ANSI standard. The product is validated as a full Fortran 77. Run-time and compile-time efficiency is ensured by the effective compiler. Application flexibility is achieved through the complete run-time input/output system, the single/double precision and the complex mathematical support routines.

# Source F77 Compiler Object code

#### Programming Convenience

D-NIX with extension includes several editors to create and modify Fortran 77 programs. With the D-NIX optional Source Code Control System (included in the development package), users can automatically keep an audit trail of program changes and recreate any previous source version.

A wide variety of compiler options is available to accomodate a range of test and development possibilities. All modules can be compiled separately. All cross references are resolved and any required library routines are incorporated into the load module by the linker.

#### MIMER/PG

MIMER/PG is a system which permits developing and generating application programs in Cobol or Fortran without conventional programming. MIMER/PG can best be described as an application generator or a 'fourth generation language'. Fortran 77 can be used to compile Fortran-source from MIMER/PG.

#### **Datatypes**

- Character (one byte). Value between -128 to 127.
- Integer\*2. At compiler-time all Integer\*4 can be converted to Integer\*2 to save memory. Value between -32768 and 32767.

- Integer\*4. Value between -2147483648 and 2147483647.
- o Logical Integer (four bytes).
- Real (four bytes). Values are based upon an 8 bits exponent and a 32 bits mantissa. Real is converted to double precision at arithmetic calculations.
- Real with double precision. Values are based upon an 11 bits exponent and a 55 bits mantissa.
  - Complex.

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- Complex with double precision.
- Matrix. The element can be of any type. Multidimensional matrix is allowed.

FORTAN 77 is a product from ACE Associated Computer Experts bv, Holland.