Variable Definition

In the *variable-definition* option used with `DEFINE DATA LOCAL`, `DEFINE DATA INDEPENDENT`, `DEFINE DATA CONTEXT` and `DEFINE DATA OBJECT`, you may specify either a *scalar-definition* or an *array-definition*:

```
{ <scalar-definition> }
{ <array-definition>  }
```

<scalar-definition>

```
variable-name { (format-length)           } [ { CONSTANT } init-definition ] [emhdpm]
              { ( { A } ) DYNAMIC         }   { INIT     }
              { ( { U } )                 }
              {     B                     }
```

<array-definition>

```
variable-name { (format-length/ array-definition)          } [ { CONSTANT } array-init-definition ] [emhdpm]
              { ( { A } /array-definition ) DYNAMIC        }   {   INIT   }
              { ( { U }                   )                }
              {     B                                      }
```

This chapter covers the following topics:

- Function
- Syntax Description

For an explanation of the symbols used in the syntax diagram, see *Syntax Symbols*.

Function

A *variable-definition* is used to define a single field/variable that may be single-valued (scalar) or multi-valued (array).

Syntax Description

variable-name	The name to be assigned to the variable. Rules for Natural variable names apply. With `DEFINE DATA INDEPENDENT`, the variable name must begin with a plus character (+). For information on naming conventions for user-defined variables, see *Naming Conventions for User-Defined Variables* in the *Using Natural* documentation.

format-length	The format and length of the field. For information on format/length definition of user-defined variables, see *Format and Length of User-Defined Variables* in the *Programming Guide*.
A, U or B	Data type: alphanumeric (A), Unicode (U) or binary (B) for dynamic variables.
array-definition	With an *array-definition*, you define the lower and upper bounds of dimensions in an array-definition. See *Array Dimension Definition*.
DYNAMIC	A field may be defined as `DYNAMIC`. For more information on processing dynamic variables, see *Using Dynamic and Large Variables*.
CONSTANT	The variable/array is to be treated as a named constant. The constant value(s) assigned will be used each time the variable/array is referenced. The value(s) assigned cannot be modified during program execution. See also *Defining Fields*, *User-Defined Constants*, *Defining Named Constants* in the *Programming Guide*. **Note:** For reasons of internal handling, it is not allowed to mix variable definitions and constant definitions within one group definition; that is, a group may contain either variables only or constants only. The `CONSTANT` clause must not be used with `DEFINE DATA INDEPENDENT` and `DEFINE DATA CONTEXT`. The `CONST` clause cannot be used with X-arrays.
INIT	The variable/array is to be assigned an initial value. This value will also be used when this variable/array is referenced in a `RESET INITIAL` statement. If no `INIT` specification is supplied, a field will be initialized with a default initial value depending on its format (see table *Default Initial Values* below). See also *Defining Fields*, *Initial Values* in the *Programming Guide*. **Note:** With `DEFINE DATA INDEPENDENT` and `DEFINE DATA CONTEXT`, the `INIT` clause is evaluated in each executed programming object that contains this clause (not only in the programming object that allocates the variable). This is different to the way the `INIT` works for global variables. The `INIT` clause cannot be used with X-arrays.
init-definition	With the *init-definition* option, you define the initial/constant values for a variable. See *Initial-Value Definition*.
array-init-definition	With an *array-init-definition*, you define the initial/constant values for an array. See *Initial/Constant Values for an Array*.
emhdpm	With this option, additional parameters to be in effect for a field/variable may be defined. See *EM, HD, PM Parameters for Field/Variable*.

Default Initial Values

Format	Default Initial Value
B, F, I, N, P	0
A, U	(blank)
L	FALSE
D	D' '
T	T'00:00:00'
C	(AD=D)
Object Handle	NULL-HANDLE

Fields declared as DYNAMIC do not have any initial value because their field length is zero by default.