

# 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*:

$\left\{ \begin{array}{l} \langle \textit{scalar-definition} \rangle \\ \langle \textit{array-definition} \rangle \end{array} \right\}$
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*<scalar-definition>*

$\textit{variable-name} \left\{ \begin{array}{l} (\textit{format-length}) \\ \left( \left( \begin{array}{l} \text{A} \\ \text{U} \\ \text{B} \end{array} \right) \right) \text{DYNAMIC} \end{array} \right\} \left[ \left[ \begin{array}{l} \underline{\text{CONSTANT}} \\ \text{INIT} \end{array} \right] \textit{init-definition} \right] [\textit{emhdpm}]$
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*<array-definition>*

$\textit{variable-name} \left\{ \begin{array}{l} (\textit{format-length/ array-definition}) \\ \left( \left( \begin{array}{l} \text{A} \\ \text{U} \\ \text{B} \end{array} \right) / \textit{array-definition} \right) \text{DYNAMIC} \end{array} \right\} \left[ \left[ \begin{array}{l} \underline{\text{CONSTANT}} \\ \text{INIT} \end{array} \right] \textit{array-init-definition} \right] [\textit{emhdpm}]$
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This chapter covers the following topics:

- Function
- Syntax Description

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

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## Function

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

## Syntax Description

<b><i>variable-name</i></b>	<p>The name to be assigned to the variable. Rules for Natural variable names apply. With <code>DEFINE DATA INDEPENDENT</code>, the variable name must begin with a plus character (+).</p> <p>For information on naming conventions for user-defined variables, see <i>Naming Conventions for User-Defined Variables</i> in the <i>Using Natural</i> documentation.</p>
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<i>format-length</i>	The format and length of the field. For information on format/length definition of user-defined variables, see <i>Format and Length of User-Defined Variables</i> in the <i>Programming Guide</i> .
<b>A, U or B</b>	Data type: alphanumeric (A), Unicode (U) or binary (B) for dynamic variables.
<i>array-definition</i>	With an <i>array-definition</i> , you define the lower and upper bounds of dimensions in an array-definition. See <i>Array Dimension Definition</i> .
<b>DYNAMIC</b>	A field may be defined as DYNAMIC. For more information on processing dynamic variables, see <i>Using Dynamic and Large Variables</i> .
<b>CONSTANT</b>	<p>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.</p> <p>See also <i>Defining Fields, User-Defined Constants, Defining Named Constants</i> in the <i>Programming Guide</i>.</p> <p><b>Note:</b> 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.</p>
<b>INIT</b>	<p>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.</p> <p>If no INIT specification is supplied, a field will be initialized with a default initial value depending on its format (see table <i>Default Initial Values</i> below).</p> <p>See also <i>Defining Fields, Initial Values</i> in the <i>Programming Guide</i>.</p> <p><b>Note:</b> 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.</p>
<i>init-definition</i>	With the <i>init-definition</i> option, you define the initial/constant values for a variable. See <i>Initial-Value Definition</i> .
<i>array-init-definition</i>	With an <i>array-init-definition</i> , you define the initial/constant values for an array. See <i>Initial/Constant Values for an Array</i> .
<i>emhdpm</i>	With this option, additional parameters to be in effect for a field/variable may be defined. See <i>EM, HD, PM Parameters for Field/Variable</i> .

## Default Initial Values

<b>Format</b>	<b>Default Initial Value</b>
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.