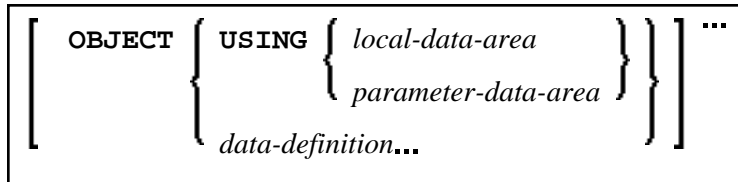


# Defining NaturalX Objects

General syntax of `DEFINE DATA OBJECT`:



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

The `DEFINE DATA OBJECT` statement is used in a subprogram or class in conjunction with NaturalX. For further information, refer to the section *NaturalX* in the *Programming Guide*.

## Syntax Description

Syntax Element	Description
<p>USING <i>local-data-area</i></p>	<p><b>LDA Name:</b></p> <p>A local data area (LDA) contains data elements which are to be used in a single Natural module. You may reference more than one data area; in that case you have to repeat the reserved words OBJECT and USING, for example:</p> <pre> DEFINE DATA   OBJECT USING DATX_L   OBJECT USING DATX_P   ... END-DEFINE ; </pre> <p>For further information, see also <i>Defining Fields in a Separate Data Area</i> in the <i>Programming Guide</i>.</p>
<p>USING <i>parameter-data-area</i></p>	<p><b>PDA Name:</b></p> <p>A data area defined with DEFINE DATA OBJECT may be a parameter data area (PDA). By using a PDA as an object data area you can avoid the extra effort of creating an object data area that has the same structure as the PDA.</p>
<p><i>data-definition</i></p>	<p><b>Direct Data Definition:</b></p> <p>Data can also be defined directly using the syntax shown in <i>Direct Data Definition</i>.</p>
<p>END-DEFINE</p>	<p><b>End of DEFINE DATA Statement:</b></p> <p>The Natural reserved word END-DEFINE must be used to end the DEFINE DATA statement.</p>

### Direct Data Definition

Data can also be defined directly using the following syntax:

$\left\{ \begin{array}{l} \textit{level} \left\{ \begin{array}{l} \textit{group-name} [(\textit{array-definition})] \\ \textit{variable-definition} \\ \textit{view-definition} \\ \textit{redefinition} \\ \textit{handle-definition} \end{array} \right\} \end{array} \right\}$
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For further information, see *Defining Fields within a DEFINE DATA Statement* in the *Programming Guide*.

Syntax Element	Description
<i>level</i>	<p><b>Level Number:</b></p> <p>Level number is a 1- or 2-digit number in the range from 01 to 99 (the leading zero is optional) used in conjunction with field grouping. Fields assigned a level number of 02 or greater are considered to be a part of the immediately preceding group which has been assigned a lower level number.</p> <p>The definition of a group enables reference to a series of fields (may also be only 1 field) by using the group name. With certain statements (CALL, CALLNAT, RESET, WRITE, etc.), you may specify the group name as a shortcut to reference the fields contained in the group.</p> <p>A group may consist of other groups. When assigning the level numbers for a group, no level numbers may be skipped.</p> <p>A view-definition must always be defined at Level 1.</p>
<i>group-name</i>	<p><b>Group Name:</b></p> <p>The name of a group. The name must adhere to the rules for defining a Natural variable name.</p> <p>See also the following sections:</p> <ul style="list-style-type: none"> <li>● <i>Naming Conventions for User-Defined Variables in Using Natural.</i></li> <li>● <i>Qualifying Data Structures in the Programming Guide.</i></li> </ul>
<i>array-definition</i>	<p><b>Array Dimension Definition:</b></p> <p>With an <i>array-definition</i>, you define the lower and upper bounds of dimensions in an array-definition.</p> <p>For further information, see <i>Array Dimension Definition</i>.</p>
<i>variable-definition</i>	<p><b>Variable Definition:</b></p> <p>A <i>variable-definition</i> is used to define a single field/variable that may be single-valued (scalar) or multi-valued (array).</p> <p>For further information, see <i>Variable Definition</i>.</p>
<i>view-definition</i>	<p><b>View Definition:</b></p> <p>A <i>view-definition</i> is used to define a view as derived from a data definition module (DDM).</p> <p>For further information, see <i>View Definition</i>.</p>

Syntax Element	Description
<i>redefinition</i>	<b>Redefinition:</b>  A <i>redefinition</i> may be used to redefine a group, a view, a DDM field or a single field/variable (that is a scalar or an array).  For further information, see <i>Redefinition</i> .
<i>handle-definition</i>	<b>Handle Definition:</b>  A handle identifies a dialog element in code and is stored in handle variables.  For further information, see <i>Handle Definition</i> .