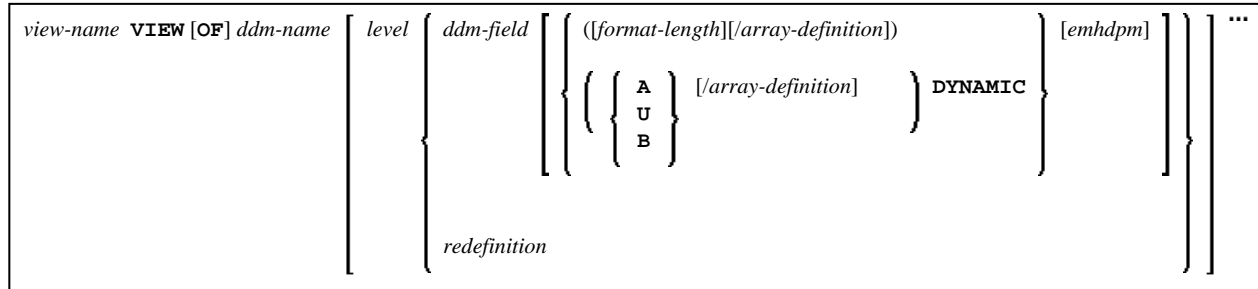


# View Definition

The *view-definition* option is used with DEFINE DATA LOCAL and DEFINE DATA OBJECT.

The *view-definition* option has the following syntax:



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 *view-definition* is used to define a data view as derived from a data definition module (DDM).

### Note:

In a parameter data area, *view-definition* is not permitted.

For further information, see *Accessing Data in an Adabas Database* in the *Programming Guide* and particularly the following topics:

- *Data Definition Modules - DDMs*
- *Database Arrays*
- *Datenbank-View definieren*

## Syntax Description

Syntax Element	Description
<i>view-name</i>	<p><b>View Name:</b></p> <p>The name to be assigned to the view.</p> <p>Rules for Natural variable names apply; see <i>Naming Conventions for User-Defined Variables</i> in <i>Using Natural</i>.</p>

Syntax Element	Description
VIEW [OF] <i>dsm-name</i>	<p><b>DDM Name:</b></p> <p>The name of the data definition module (DDM) from which the view is to be taken.</p>
<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 one 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>
<i>dsm-field</i>	<p><b>DDM Field Name:</b></p> <p>The name of a field to be taken from the DDM.</p> <p>When you define a view for a HISTOGRAM statement, the view must contain only the descriptor for which HISTOGRAM is to be executed.</p>
<i>redefinition</i>	<p><b>Redefinition:</b></p> <p>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).</p> <p>For further information, see <i>Redefinition</i>.</p>
<i>format-length</i>	<p><b>Format/Length Definition:</b></p> <p>Format and length of the field. If omitted, these are taken from the DDM.</p> <p>In structured mode, the definition of format and length (if supplied) must be the same as those in the DDM.</p> <p>In reporting mode, the definition of format and length (if supplied) must be type-compatible with those in the DDM.</p>

Syntax Element	Description
A, U or B	<p><b>Data Type:</b></p> <p>Alphanumeric (A), Unicode (U) or binary (B) for dynamic variables.</p> <p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. For Adabas on mainframe computers, format U is available for LA fields (length &lt;= 16381 bytes), but not for LB fields (length: &lt;= 1 GB).</li> <li>2. Format B is not available with Adabas.</li> </ol>
<i>array-definition</i>	<p><b>Array Definition:</b></p> <p>Depending on the programming mode used, arrays (periodic-group fields, multiple-value fields) may have to contain information about their occurrences.</p> <p>For further information, see <i>Array Definition in a View</i> below.</p>
<i>emhdpm</i>	<p><b>EM, HD, PM Parameters for Field/Variable:</b></p> <p>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>.</p>
DYNAMIC	<p><b>DYNAMIC Option:</b></p> <p>Defines a view field as DYNAMIC.</p> <p>For further information on processing dynamic variables, see <i>Introduction to Dynamic Variables and Fields</i> in the <i>Programming Guide</i>.</p>

## Array Definition in a View

Depending on the programming mode used, arrays (periodic-group fields, multiple-value fields) may have to contain information about their occurrences.

- Structured Mode
- Reporting Mode

### Structured Mode

If a field is used in a view that represents an array, the following applies:

- An index value must be specified for MU/PE fields
- When no format/length specification is supplied, the values are taken from the DDM.
- When a format/length specification is supplied, it must be the same as in the DDM.

## Database-Specific Considerations in Structured Mode:

<b>Adabas:</b>	If MU/PE fields (defined in a DDM) are to be used inside a view, these fields must include an array index specification. For an MU field or ordinary PE field, you specify a one-dimensional index range, e.g. (1:10). For an MU field inside a PE group, you specify a two-dimensional index range, e.g. (1:10,1:5).		
A(*:X2)	A(*:Y2) Y2=<X2 A(Y1:Y2) Y2>Y1 Y2=<X2 A(Z:Z+Y) Y>=0	A(*:*) A(Y1:*)	
A(X1:*)	A(Y1:*) Y1>=X1 A(Y1:Y2) Y2>=X1, Y1>=X1 A(Z:Z+Y) Y>=0	A(*:*) A(*:Y2)	
A(X1:X2)	A(Y1:Y2) Y2<Y1 A(Z:Z+Y) 0=<Y>=X2-X1+1	A(*:*) A(Y1:*) A(*:Y2)	

## Examples for Structured Mode:

```

DEFINE DATA LOCAL
1 EMP1 VIEW OF EMPLOYEES
  2 NAME(A20)
  2 ADDRESS-LINE(A20 / 1:2)

1 EMP2 VIEW OF EMPLOYEES
  2 NAME
  2 ADDRESS-LINE(1:2)

1 EMP3 VIEW OF EMPLOYEES
  2 NAME
  2 ADDRESS-LINE(2)

1 #K (I4)
1 EMP4 VIEW OF EMPLOYEES
  2 NAME
  2 ADDRESS-LINE(#K:#K+1)
END-DEFINE
END

```

## Reporting Mode

In this mode, the same rules are valid as for structured mode, however, there are two exceptions:

- An index value needs not be supplied. In this case, the index range for the missing dimensions is set to (1:1).
- The format/length specification may differ from the specification in the DDM. Then the definition of format and length must be type-compatible with those in the DDM.

## Examples:

```

DEFINE DATA LOCAL
1 EMP1 VIEW OF EMPLOYEES
  2 NAME(A30)
  2 ADDRESS-LINE(A35 / 5:10)

1 EMP2 VIEW OF EMPLOYEES
  2 NAME

```

```
2 ADDRESS-LINE(A40)          /* ADDRESS LINE (1:1) IS ASSUMED

1 EMP3 VIEW OF EMPLOYEES
  2 NAME
  2 ADDRESS-LINE             /* ADDRESS LINE (1:1) IS ASSUMED

1 #K (I4)
1 EMP4 VIEW OF EMPLOYEES
  2 NAME
  2 ADDRESS-LINE(#K:#K+1)
END-DEFINE
END
```