

# PROCESS SQL

**PROCESS SQL** *dgm-name* <<*statement-string*>>

This chapter covers the following topics:

- Function
- Syntax Description
- Entire Access Options
- Examples

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


Belongs to Function Group: *Database Access and Update*

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## Function

The **PROCESS SQL** statement is used to issue SQL statements to the underlying database.

## Syntax Description

Syntax Element	Description
<i>dgm-name</i>	The name of a DDM must be specified to provide the "address" of the database which executes the stored procedure. For more information see <i>dgm-name</i> .
<i>statement-string</i>	<p>The statements which can be specified in the <i>statement-string</i> are the same statements which can be issued with the SQL statement EXECUTE (see also <i>Flexible SQL</i>).</p> <p> <b>Warning:</b>  <b>To avoid transaction synchronization problems between the Natural environment and the underlying database, the COMMIT and ROLLBACK statements must not be used within PROCESS SQL.</b></p> <p>The statement string can cover several statement lines without any continuation character to be specified. Comments at the end of a line as well as entire comment lines are possible.</p> <p>The statement string can also include parameters; see <i>Parameters</i> below.</p>

## Parameters

$\left[ \begin{array}{l} :U \\ :G \end{array} \right] :host-variable [INDICATOR:host-variable] [LINIDICATOR:host-variable]$
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Unlike with the *parameter* described, in this context *host-variables* must be prefixed by a colon (:). In addition, they can be preceded by a further qualifier (:U or :G).

See further details on *host-variable*.

Syntax Element Description:

Syntax Element	Description
:U: <i>host-variable</i>	The prefix :U qualifies the host variable as a so-called "Using" variable. Such a variable indicates that its value is to be <i>passed to</i> the database.  :U is the default specification.
:G: <i>host-variable</i>	The prefix :G qualifies the host variable as a so-called "Giving" variable. Such a variable indicates that it is to <i>receive</i> a value <i>from</i> the database.

## Entire Access Options

With Entire Access, you can also specify the following as *statement-string*:

- SET SQLOPTION *option* = *value*
- SQLCONNECT *option* = *value*
- SQLDISCONNECT

These options are only possible with Entire Access.

## Examples

### Example for Adabas D:

```
PROCESS SQL ADABAS_D_DDM << LOCK TABLE EMPLOYEES IN SHARE MODE >>
```

### Example of Calling a Procedure Stored in Adabas D:

The called procedure computes the sum of two numbers.

```
...  
COMPUTE #N1 = 1  
COMPUTE #N2 = 2  
COMPUTE #SUM = 0  
...  
PROCESS SQL ADABAS_D_DDM << DBPROCEDURE DEMO.SUM (:#N1, :#N2, :G:#SUM) >>  
...  
WRITE #N1 '+' #N2 ' =' #SUM  
...
```