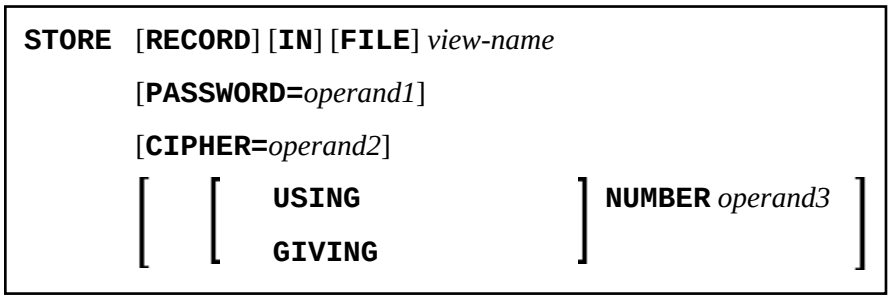
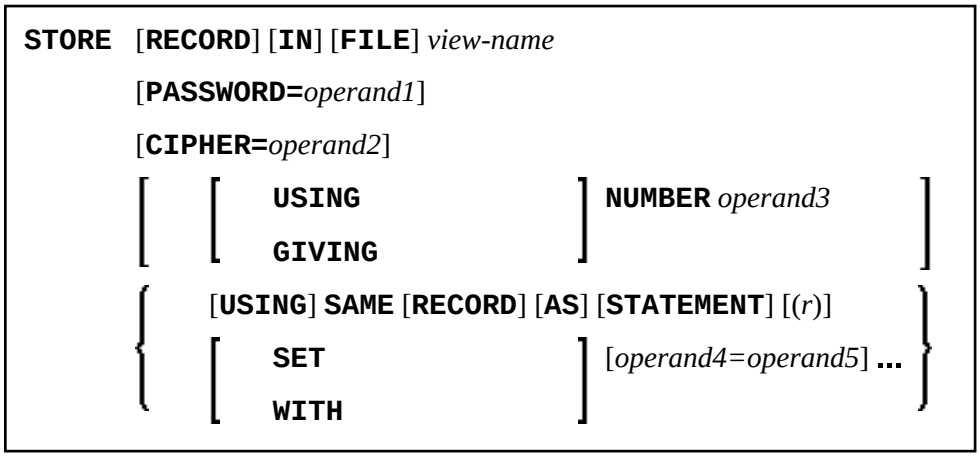
STORE

Structured Mode Syntax



Reporting Mode Syntax



This chapter covers the following topics:

- Function
- Database-Specific Considerations
- Syntax Description
- Example

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

Related Statements: ACCEPT/REJECT | AT BREAK | AT START OF DATA | AT END OF DATA | BACKOUT TRANSACTION | BEFORE BREAK PROCESSING | DELETE | END TRANSACTION | FIND | GET | GET SAME | GET TRANSACTION DATA | HISTOGRAM | LIMIT | PASSW | PERFORM BREAK PROCESSING | READ | RETRY | UPDATE

Belongs to Function Group: *Database Access and Update*

Function

The STORE statement is used to add a record to a database.

Database-Specific Considerations

Adabas	The Natural system variable *ISN contains the Adabas ISN assigned to the new record as a result of the STORE statement execution. A subsequent reference to *ISN must include the statement number of the related STORE statement.
DL/I	This statement may be used to add a segment occurrence. If the dataset is defined with a primary key, a value for the primary key field must be provided. In the case of a GSAM database, records must be added at the end of the database (due to GSAM restrictions). The Natural system variable *ISN is not available.
SQL	This statement may be used to add a row to a table. The PASSWORD, CIPHER, and GIVING NUMBER clauses cannot be used. The STORE statement corresponds with the SQL statement INSERT. The Natural system variable *ISN is not available.
VSAM	If the dataset is defined with a primary key, a value for the primary key field must be provided. The Natural system variable *ISN contains the VSAM RBA/RRN assigned to the new record as a result of the STORE statement execution. A subsequent reference to *ISN must include the statement number of the related STORE statement. For VSAM databases, the Natural system variable *ISN is available only for ESDS and RRDS files.

Syntax Description

Operand Definition Table:

Operand	Possible Structure					Possible Formats												Referencing Permitted	Dynamic Definition
operand1	C	S				A												yes	no
operand2	C	S						N										yes	no
operand3		S						N	P			B *						no	yes
operand4		S	A			A		N	P	I	F	B	D	T	L			no	no
operand5	C	S	A			A		N	P	I	F	B	D	T	L			yes	no

* Format B of *operand3* may be used only with a length of less than or equal to 4.

Syntax Element Description:

view-name	As *view-name*, you specify the name of a view, which must have been defined either in a `DEFINE DATA` statement or outside the program in a global or local data area. In reporting mode, *view-name* is the name of a DDM if no `DEFINE DATA LOCAL` statement is used.
PASSWORD=*operand1*	The `PASSWORD` clause is applicable only for an Adabas or VSAM database. This clause is used to provide a password (*operand1*) when updating data from a file which is password-protected. The password (*operand1*) may be specified as an alphanumeric constant or as an alphanumeric variable. It may consist of up to 8 characters, and must not contain special characters or embedded blanks. If the password is specified as a constant, it must be enclosed in apostrophes. For further information, see the statements `FIND` and `PASSW`.
CIPHER=*operand2*	The `CIPHER` clause is applicable only for an Adabas or VSAM database. This clause is used to provide a cipher key (*operand2*) when updating data from a file which is enciphered. The cipher key (*operand2*) may be specified as an numeric constant with 8 digits or as a user-defined variable with format/length N8. For further information, see the statement `FIND`.

USING NUMBER *operand3* **or** **GIVING NUMBER *operand3***	This clause can only be used for an Adabas or VSAM database. For VSAM databases, this clause is only valid for VSAM RRDS, in which case a user-supplied RRN (relative record number) corresponds to the ISN as described above. This clause is used to store a record with a user-supplied Adabas ISN. If a record with the specified ISN already exists, an error message will be returned and the execution of the program will be terminated unless `ON ERROR` processing was specified.
SET/WITH *operand4=operand5*	`SET/WITH` can be used in reporting mode to specify the fields for which values are being provided. Any field defined in the file that is not specified in the SET clause will contain a null value in the new record. This clause is not permitted if a `DEFINE DATA` statement is used, because in that case the `STORE` statement always refers to the entire view as defined in the `DEFINE DATA` statement. **DL/I-Specific Considerations:** A segment of variable length is stored with the minimum length necessary to contain all fields as specified with the `STORE` statement. The segment length will never be less than the minimum size specified in the `SEGM` macro of the DBD. Values must be provided for the segment sequence field, and for all sequence fields of the ancestors. Only I/O (sensitive) fields may be provided. If a multiple-value field or a periodic group is defined as variable in length, at the end of the segment only the occurrences as specified in the `STORE` statement are written to the segment and define the segment length.
USING SAME (*r*)	`USING SAME` can be used in reporting mode to indicate that the same field values as read in the statement referenced by the `STORE` statement (`FIND`, `GET`, `READ`) are to be used to add a new record. The statement reference notation `(r)` may be specified as a source-code line number or as a statement label. This clause is not permitted if a `DEFINE DATA` statement is used, because in that case the `STORE` statement always refers to the entire view as defined in the `DEFINE DATA` statement.

Example

```
** Example 'STOEX1S': STORE  (structured mode)
**
** CAUTION: Executing this example will modify the database records!
************************************************************************
DEFINE DATA LOCAL
1 EMPL-VIEW VIEW OF EMPLOYEES
  2 PERSONNEL-ID
  2 NAME
  2 FIRST-NAME
  2 MAR-STAT
```

```
  2 BIRTH
  2 CITY
  2 COUNTRY
*
1 #PERSONNEL-ID (A8)
1 #NAME         (A20)
1 #FIRST-NAME   (A15)
1 #BIRTH-D      (D)
1 #MAR-STAT     (A1)
1 #BIRTH        (A8)
1 #CITY         (A20)
1 #COUNTRY      (A3)
1 #CONF         (A1)
END-DEFINE
*
REPEAT
  INPUT 'ENTER A PERSONNEL ID AND NAME (OR ''END'' TO END)' //
        'PERSONNEL-ID : ' #PERSONNEL-ID  //
        'NAME         : ' #NAME          /
        'FIRST-NAME   : ' #FIRST-NAME
  /*
  /*  VALIDATE ENTERED DATA
  /*
  IF #PERSONNEL-ID = 'END' OR #NAME = 'END'
    STOP
  END-IF
  IF #NAME = ' '
    REINPUT WITH TEXT 'ENTER A LAST-NAME' MARK 2 AND SOUND ALARM
  END-IF
  IF #FIRST-NAME = ' '
    REINPUT WITH TEXT 'ENTER A FIRST-NAME' MARK 3 AND SOUND ALARM
  END-IF
  /*
  /*  ENSURE PERSON IS NOT ALREADY ON FILE
  /*
  FIND NUMBER EMPL-VIEW WITH PERSONNEL-ID =  #PERSONNEL-ID
  IF *NUMBER > 0
    REINPUT 'PERSON WITH SAME PERSONNEL-ID ALREADY EXISTS'
            MARK 1 AND SOUND ALARM
  END-IF
  MOVE 'N' TO #CONF
  /*
  /*  GET FURTHER INFORMATION
  /*
  INPUT
    'ADDITIONAL PERSONNEL DATA'                        ////
    'PERSONNEL-ID             :' #PERSONNEL-ID (AD=IO) /
    'NAME                     :' #NAME         (AD=IO) /
    'FIRST-NAME               :' #FIRST-NAME   (AD=IO) ///
    'MARITAL STATUS           :' #MAR-STAT             /
    'DATE OF BIRTH (YYYYMMDD) :' #BIRTH                /
    'CITY                     :' #CITY                 /
    'COUNTRY (3 CHARACTERS)   :' #COUNTRY              //
    'ADD THIS RECORD (Y/N)    :' #CONF          (AD=M)
  /*
  /*   ENSURE REQUIRED FIELDS CONTAIN VALID DATA
  /*
  IF NOT (#MAR-STAT = 'S'  OR = 'M' OR = 'D' OR = 'W')
    REINPUT TEXT 'ENTER VALID MARITAL STATUS  S=SINGLE ' -
                 'M=MARRIED D=DIVORCED W=WIDOWED' MARK 1
  END-IF
  IF NOT (#BIRTH = MASK(YYYYMMDD) AND #BIRTH = MASK(1582-2699))
```

```
    REINPUT TEXT 'ENTER CORRECT DATE' MARK 2
  END-IF
  IF #CITY  = ' '
    REINPUT TEXT 'ENTER A CITY NAME' MARK 3
  END-IF
  IF #COUNTRY = ' '
    REINPUT TEXT 'ENTER A COUNTRY CODE' MARK 4
  END-IF
  IF NOT (#CONF = 'N' OR= 'Y')
    REINPUT TEXT 'ENTER Y (YES) OR N (NO)' MARK 5
  END-IF
  IF #CONF = 'N'
    ESCAPE TOP
  END-IF
  /*
  /*  ADD THE RECORD
  /*
  MOVE EDITED #BIRTH TO #BIRTH-D (EM=YYYYMMDD)
  /*
  EMPL-VIEW.PERSONNEL-ID := #PERSONNEL-ID
  EMPL-VIEW.NAME         := #NAME
  EMPL-VIEW.FIRST-NAME   := #FIRST-NAME
  EMPL-VIEW.MAR-STAT     := #MAR-STAT
  EMPL-VIEW.BIRTH        := #BIRTH-D
  EMPL-VIEW.CITY         := #CITY
  EMPL-VIEW.COUNTRY      := #COUNTRY
  /*
  STORE RECORD IN EMPL-VIEW
  /*
  END OF TRANSACTION
  /*
  WRITE NOTITLE 'RECORD HAS BEEN ADDED'
  /*
END-REPEAT
END
```

Output of Program STOEX1S:

```
ENTER A PERSONNEL ID AND NAME (OR 'END' TO END)

PERSONNEL-ID : 90001100

NAME         : JONES
FIRST-NAME   : EDWARD
```

After entering and confirming the personnel key data, additional personnel data fields are displayed for input:

```
ADDITIONAL PERSONNEL DATA



PERSONNEL-ID             : 90001100
NAME                     : JONES
FIRST-NAME               : EDWARD


MARITAL STATUS           :
DATE OF BIRTH (YYYYMMDD) :
```

```
CITY                     :
COUNTRY (3 CHARACTERS)   :

ADD THIS RECORD (Y/N)    : N
```

Equivalent reporting-mode example: STOEX1R.