

Conditional Processing - IF Statement

With the IF statement, you define a logical condition, and the execution of the statement attached to the IF statement then depends on that condition.

The following topics are covered:

- Structure of IF Statement
 - Example of IF Statement
 - Nested IF Statements
 - Example of Nested IF Statements
 - Further Example of IF Statement
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Structure of IF Statement

The IF statement contains three components:

IF In the IF clause, you specify the logical condition which is to be met.

THEN In the THEN clause you specify the statement(s) to be executed if this condition is met.

ELSE In the (optional) ELSE clause, you can specify the statement(s) to be executed if this condition is *not* met.

So, an IF statement takes the following general form:

```
IF condition
  THEN execute statement(s)
  ELSE execute other statement(s)
END-IF
```

If you wish a certain processing to be performed only if the IF condition is **not** met, you can specify the clause THEN IGNORE. The IGNORE statement causes the IF condition to be ignored if it is met.

For more information on logical conditions, see General Information of the Natural Statements documentation.

Example of IF Statement

```
** Example Program 'IFX01'
DEFINE DATA LOCAL
1 MYVIEW VIEW OF EMPLOYEES
2 NAME
2 BIRTH
2 CITY
2 SALARY (1:1)
END-DEFINE
*
LIMIT 7
READ MYVIEW BY CITY STARTING FROM 'C'
IF SALARY (1) LT 40000 THEN
  WRITE NOTITLE '*****' NAME 30X 'SALARY LT 40000'
ELSE
```

```

        DISPLAY NAME BIRTH (EM=YYYY-MM-DD) SALARY (1)
END-IF
END-READ
END

```

The IF statement block in the above program causes the following conditional processing to be performed:

- IF the salary is less than 40000, THEN the WRITE statement is to be executed;
- otherwise (ELSE), that is, if the salary is 40000 or more, the DISPLAY statement is to be executed.

The program produces the following output:

NAME	DATE OF BIRTH	ANNUAL SALARY
***** KEEN		SALARY LT 40000
***** FORRESTER		SALARY LT 40000
***** JONES		SALARY LT 40000
***** MELKANOFF		SALARY LT 40000
DAVENPORT	1948-12-25	42000
GEORGES	1949-10-26	182800
***** FULLERTON		SALARY LT 40000

Nested IF Statements

It is possible to use various nested IF statements; for example, you can make the execution of a THEN clause dependent on another IF statement which you specify in the THEN clause.

Example of Nested IF Statements

```

** Example Program 'IFX02'
DEFINE DATA LOCAL
1 MYVIEW VIEW OF EMPLOYEES
  2 NAME
  2 CITY
  2 SALARY (1:1)
  2 BIRTH
  2 PERSONNEL-ID
1 MYVIEW2 VIEW OF VEHICLES
  2 PERSONNEL-ID
  2 MAKE
  1 #BIRTH (D)
END-DEFINE
*
MOVE EDITED '19450101' TO #BIRTH (EN=YYYYMMDD)
*
LIMIT 20
FND1. FIND MYVIEW WITH CITY = 'BOSTON'
          SORTED BY NAME
IF SALARY (1) LESS THAN 20000
  THEN WRITE NOTITLE '*****' NAME 30X 'SALARY LT 20000'
ELSE
  IF BIRTH GT #BIRTH
    FIND MYVIEW2 WITH PERSONNEL-ID = PERSONNEL-ID (FND1.)

```

```

DISPLAY (IS=ON) NAME BIRTH (EM=YYYY-MM-DD)
      SALARY (1) MAKE (AL=8 IS=OFF)
      END-FIND
      END-IF
      END-IF
      SKIP 1
END-FIND
END

```

The above program with nested IF statements produces the following output:

NAME	DATE OF BIRTH	ANNUAL SALARY	MAKE
***** COHEN			SALARY LT 20000
CREMER	1972-12-14	20000	FORD
***** FLEMING			SALARY LT 20000
***** GREENACRE			SALARY LT 20000
PERREAULT	1950-05-12	30500	CHRYSLER
***** SHAW			SALARY LT 20000
STANWOOD	1946-09-08	31000	CHRYSLER FORD

Further Example of IF Statement

See the following example program in library SYSEXPG:

- IFX03