

2.6 The Order-Status Transaction

The Order-Status business transaction queries the status of a customer's last order. It represents a mid-weight read-only database transaction with a low frequency of execution and response time requirement to satisfy on-line users. In addition, this table includes non-primary key access to the CUSTOMER table.

2.6.1 Input Data Generation

2.6.1.1 For any given terminal, the home warehouse number (W_ID) is constant over the whole measurement interval.

2.6.1.2 The district number (D_ID) is randomly selected within [1 ..10] from the home warehouse. The customer is randomly selected 60% of the time by last name (C_W_ID, C_D_ID, C_LAST) and 40% of the time by number (C_W_ID, C_D_ID, C_ID) from the selected district (C_D_ID = D_ID) and the home warehouse number (C_W_ID = W_ID). This can be implemented by generating a random number y within [1 .. 100];

- If $y \leq 60$ a customer last name (C_LAST) is generated according to Clause 4.3.2.3 from a non-uniform random value using the NURand(255,0,999) function. The customer is using his/ her last name and is one of the, possibly several, customers with that last name.

Comment: This case illustrates the situation when a customer does not use his/ her unique customer number.

- If $y > 60$ a non-uniform random customer number (C_ID) is selected using the NURand(1023,1,3000) function. The customer is using his/ her customer number.

2.6.2 Transaction Profile

2.6.2.1 Querying for the status of an order is done in a single database transaction with the following steps:

1. Find the customer and his/ her last order, comprised of:

Case 1, the customer is selected based on customer number:

2 row selections with data retrieval.

Case 2, the customer is selected based on customer last name:

4 row selections (on average) with data retrieval.

2. Check status (delivery date) of each item on the order (average items-per-order = 10), comprised of:
(1 * items-per-order) row selections with data retrieval.

Note: The above summary is provided for information only. The actual requirement is defined by the detailed transaction profile below.

2.6.2.2 For a given customer number (C_W_ID , C_D_ID , C_ID):

- The input data (see Clause 2.6.3.2) are communicated to the SUT.
- A database transaction is started.
- **Case 1**, the customer is selected based on customer number: the row in the CUSTOMER table with matching C_W_ID, C_D_ID, and C_ID is selected and C_BALANCE, C_FIRST, C_MIDDLE, and C_LAST are retrieved.

2.6.3.3 The emulated terminal must display, in the appropriate fields of the input/ output screen, all input data and the output data resulting from the execution of the transaction. The display fields are divided in two groups as follows:

- One non-repeating group of fields: W_ID, D_ID, C_ID, C_FIRST, C_MIDDLE, C_LAST, C_BALANCE, O_ID, O_ENTRY_D, and O_CARRIER_ID;
- One repeating group of fields: OL_SUPPLY_W_ID, OL_I_ID, OL_QUANTITY, OL_AMOUNT, and OL_DELIVERY_D. The group is repeated O_OL_CNT times (once per item in the order).

Comment 1: The order of items shown on the Order-Status screen does not need to match the order in which the items were entered in its corresponding New-Order screen.

Comment 2: If OL_DELIVERY_D is null (i.e., the order has not been delivered), the terminal must display an implementation specific null date representation (e.g., blanks, 99-99-9999, etc.). The chosen null date representation must not change during the test.

2.6.3.4 The following table summarizes the terminal I/ O requirements for the Order-Status transaction:

Enter		Display Row/ Column	Coordinates
Non-repeating Group		W_ID	2/ 12
	D_ID	D_ID	2/ 29
	C_ID ¹	C_ID	3/ 11
		C_FIRST	3/ 24
		C_MIDDLE	3/ 41
	C_LAST ²	C_LAST	3/ 44
		C_BALANCE	4/ 16
		O_ID	6/ 15
		O_ENTRY_D	6/ 38
		O_CARRIER_ID	6/ 76
Repeating Group		OL_SUPPLY_W_ID	8-22/ 3
		OL_I_ID	8-22/ 14
		OL_QUANTITY	8-22/ 25
		OL_AMOUNT	8-22/ 33
		OL_DELIVERY_D	8-22/ 47
¹ Enter only for query by customer number.			2
Enter only for query by customer last name.			

2.6.3.5 For general terminal I/ O requirements, see Clause 2.2.