SELECT

FETCH

DDL, INSERT,

UPDATE,

DELETE

Relational Database

SAS Enterprise Guide

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SQL Pass-Through:

SAS ACCESS offers two methods of passing SQL to Relational Databases for processing:

1. **Implicit SQL Pass-Through**
2. **Explicit SQL Pass-Through**

**Implicit SQL Pass-Through** can be identified by the use of a SAS LIBNAME statement pointing at a relational database. As the name suggests, SAS will attempt to convert such code to SQL that the target database can process.

Using this coding method implicitly expects SAS to convert that code to SQL and pass it to the target

relational database for execution.

LIBNAME ora\_sample ORACLE SERVER=xxxxxT USER=xxxxx PWD=XXXXXX DATABASE=xxxxxx;

Incorporating this library name, the following code excerpts thus represent two examples of Implicit SQL Pass-Through.

Example 1: PROC PRINT DATA= ora\_sample.oradata\_table (OBS=5);

Example 2: PROC SQL; CREATE TABLE mydataset AS SELECT \* FROM ora\_sample.oradata\_table;

**Explicit SQL Pass-Through** is a coding syntax that allows to write/submit database-specific SQL that SAS will pass untouched to that database.

As the name suggests, Explicit SQL Pass-Through is based on the premise that SAS will not alter or translate the code, but rather will submit what the programmer has coded verbatim to the relational database for execution.

There are two forms of syntax typically associated with Explicit SQL Pass-Through, namely

**EXPLICIT SQL PASS-THROUGH SYNTAX FORM 1**

Again using ORACLE as an example, the following syntax is typically used to pass Data Manipulation (DML) SQL to the database for execution:

PROC SQL;

CONNECT TO ORACLE (USER= PASSWORD= SERVER=

DATABASE= <other connection options>);

CREATE table/view \_name\_ AS /\* Optional \*/

SELECT \* FROM CONNECTION TO ORACLE

( ORACLE SQL Statement);

DISCONNECT FROM ORACLE;

QUIT;

**EXPLICIT SQL PASS-THROUGH SYNTAX FORM 2**

This form may be used to pass any SQL - including Data Definition Language (DDL) commands - from SAS to the database for execution:

PROC SQL;

CONNECT TO ORACLE (USER= PASSWORD= SERVER=

DATABASE= <other connection options>);

EXECUTE(Oracle DML SQL Statement1) BY ORACLE;

EXECUTE(Oracle DDL SQL Statement1) BY ORACLE;

EXECUTE(COMMIT) BY ORACLE;

......

QUIT;