# General Information

This section covers the following topics:

- Environment-Specific Considerations

- Incompatibilities and Constraints

- Messages Related to Natural SQL Gateway

- Terms Used in this Documentation

## Environment-Specific Considerations

Natural SQL Gateway can be run in the TP-monitor environments CICS and Com-plete and in TSO and as well as in a z/OS batch environment.

This section covers the following topics:

- Natural SQL Gateway under CICS

- Natural SQL Gateway under Com-plete

- Natural SQL Gateway under TSO

- Natural SQL Gateway in Batch Mode

### Natural SQL Gateway under CICS

The following topics are covered below:

- Natural SQL Gateway Server Deployment
- File Server under CICS

#### Natural SQL Gateway Server Deployment

In order to access SQL tables from a CICS environment via Natural SQL Gateway, the Natural SQL Gateway Server has to be deployed. The `NDBPARM` parameters `NSBAHOST` and `NSBAPORT` are used to specify the address and port number of the Natural SQL Gateway server.

#### File Server under CICS

In a CICS environment, the file server is an optional feature to relieve the problems of switching to conversational processing. Before a screen I/O, Natural detects if there are any open cursors and if so, saves the data contained by these cursors into the file server. With the file server, database loops can be continued across terminal I/Os, but database modifications made before a terminal I/O can no longer be backed out.

For a detailed description of the file server, refer to the section *Natural File Server*.

## Natural SQL Gateway under Com-plete

In order to access SQL tables from a Com-plete environment via Natural SQL Gateway, the Natural SQL Gateway server has to be deployed. The `NDBPARM` parameters `NSBAHOST` and `NSBAPORT` are used to specify the address and port number of the Natural SQL Gateway server.

## Natural SQL Gateway under TSO

Natural SQL Gateway can run under TSO without requiring any changes to the Natural/TSO interface. Just supply the `hlq.RCI.LOAD` library from the CXX Adabas precompiler installation in the JCL.

Apart from z/OS Batch, the batch environment for Natural can also be the TSO background, which invokes the TSO terminal monitor program by an `EXEC PGM=IKJEFT01` statement in a JCL stream.

### File Server under TSO

In a TSO environment, the file server is an optional feature to be able to emulate during development status a future CICS production environment.

With each terminal I/O, Natural issues a `COMMIT WORK` command to simulate CICS or IMS TM syncpoints. Therefore, database modifications made before a terminal I/O can no longer be backed out.

For a detailed description of the file server, refer to the section *Natural File Server*.

## Natural SQL Gateway in Batch Mode

Natural SQL Gateway can run in a z/OS batch environment. Just supply the `hlq.RCI.LOAD` library from the CXX Adabas precompiler installation in the JCL.

# Incompatibilities and Constraints

This section lists the known incompatibilities and constraints when using Natural SQL Gateway to access data from from an SQL database system:

## Data Type DECIMAL or NUMERIC

Most SQL database systems support packed decimal numbers with a maximal precision of 31 digits and a scale (fractional part of the number) of up to 31 digits. The scale has to be positive and not greater than the precision. Natural allows only a precision of 29 digits and the scale could not be greater than 7.

## LOBs

Natural SQL Gateway does not support large database objects.

## Stored Procedures

Natural SQL Gateway does not support stored procedures.

### Static Execution

Natural SQL Gateway does not support static execution of Natural programs.

# Messages Related to Natural SQL Gateway

The message number ranges of Natural system messages related to Natural SQL Gateway are 3275 - 3286, 3700-3749, and 7386-7395.

# Terms Used in this Documentation

The following table provides an overview of important terms used in the Natural SQL Gateway documentation:

| Term | Explanation |
|------|-------------|
| NSB | This is the product code of Natural SQL Gateway. In this documentation the product code is often used as prefix in the names of datasets, modules, etc. |
| NSERV | Short for Natural SQL Gateway server. |
| File Server | The term "file server" refers to the Natural file server. |
| DB2 | DB2 refers to the family of IBM's licensed programs for relational database management. |