

Oracle® Database

Release Notes

12c Release 1 (12.1)

for Fujitsu BS2000/OSD

E74140-02

January 2017

This document describes the features of Oracle Database on Fujitsu BS2000/OSD.

This release implements the features of Oracle Database 12c Release 1 Enterprise Edition. These features are listed and described in the generic Oracle Documentation and in *Oracle Database Licensing Information* and *Oracle Database New Features Guide*.

The following topics are covered in this chapter:

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Supported Fujitsu BS2000 Servers

Oracle Database 12c Release 1 for Fujitsu BS2000/OSD (S series) is based on the /390 instruction set. It runs on the following Fujitsu BS2000 servers:

- S Servers
- SE Servers
- SQ Servers

Oracle Database 12c Release 1 for Fujitsu BS2000/OSD (S series) runs on all Fujitsu BS2000 processors, in particular on the S servers and the /390-based system units of SE servers (SU /390).

Oracle Database 12c Release 1 for Fujitsu BS2000/OSD (S series) runs in the /390 compatibility mode on processors that are based on Intel x86 architecture. This applies for x86-based server units of the SE servers (SU x86) and for SQ servers.

Note:

Up to Oracle Database 11g Release 2, two software variants for the platform Fujitsu BS2000/OSD are released:

- Oracle Database for Fujitsu BS2000/OSD (S Series)
- Oracle Database for Fujitsu BS2000/OSD (SQ series)

Oracle Database for Fujitsu BS2000/OSD (SQ Series) is based on the Intel x86 instruction set. This variant runs on the Fujitsu BS2000 servers that are based on Intel x86 architecture, in particular on x86-based server units of the SE servers (SU x86) and on SQ servers.

Starting with Oracle Database 12c Release 1, a native variant for the Fujitsu BS2000 servers based on Intel x86 architecture will not be released. If you use Oracle Database 11g Release 2 for Fujitsu/BS2000 (SQ series), then you must upgrade to Oracle Database 12c Release 1 for Fujitsu BS2000/OSD (S series).

The logical and physical structure of a database does not depend on the Oracle Database software variant in use, Oracle Database 11g Release 2 for Fujitsu/BS2000 (S Series) or Fujitsu/BS2000 (SQ Series). Upgrade your database as described in *Oracle Database Installation and Administration Guide for Fujitsu Siemens BS2000/OSD*.

Unsupported Options

The following options are not supported on Oracle Database 12c Release 1 for Fujitsu BS2000/OSD:

- Oracle Advanced Analytics
- Oracle Database In-Memory
- Oracle Data Mining
- Oracle Database Vault
- Oracle Label Security
- Oracle On-Line Analytical Processing (OLAP)
- Oracle RAC One Node
- Oracle Real Application Clusters (Oracle RAC)
- Oracle Spatial and Graph
- Oracle TimesTen Application-Tier Database Cache (formerly known as Oracle In-Memory Database Cache)

Unsupported Features

The following features are not supported on Oracle Database 12c Release 1 for Fujitsu BS2000/OSD:

- Cross Platform Transportable Tablespace

- Database Configuration Assistant
- Database Migration Assistant for Unicode
- Database Upgrade Assistant
- JIT in Oracle JavaVM
- JavaScript Object Notification (JSON)
- Native Compilation of Java and PL/SQL
- OCCI
- OPatch
- Oracle Application Express
- Oracle Automatic Storage Management
- Oracle Configuration Manager
- Oracle Direct NFS
- Oracle Enterprise Manager Database Express
- Oracle Globalization Development Kit
- Oracle Heterogeneous Services
- Oracle Instant Client
- Oracle Java Server Pages
- Oracle JDBC OCI drivers
- Oracle Messaging Gateway
- Oracle Multimedia
- Oracle Secure Backup
- Oracle Universal Installer
- Oracle XML DB
- Threaded Execution Mode

Known Restrictions, Issues, and Workarounds

This section provides information about known restrictions and issues. It contains workarounds where possible, and suggestions for certain common issues. If you encounter an issue that is not reported here, then contact Oracle Support for further assistance.

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General Notes

The German characters ä, ö, ü and ß, cannot be used in the names of tables, columns, fields, synonyms, and so on. This is because these characters are converted into braces (for example, {}). However, these characters can be stored as data.

ALTER DATABASE ... RESIZE

The operation `ALTER DATABASE . . . RESIZE`, to make a database file smaller, is not supported on BS2000. This operation has no effect on the corresponding BS2000 files.

However, database files can be altered to larger sizes either manually by using `ALTER` or automatically, when a tablespace is defined with `AUTOEXTEND`.

IEEE Standard Floating Point Number Restrictions

The `BINARY FLOAT` and `BINARY DOUBLE` data types are not supported for customer-written database applications running on BS2000/OSD.

Attempts to store or fetch these types from an application program running on BS2000/OSD produces unpredictable results with both local and remote Oracle databases.

SQL*Loader

The binary data types `FLOAT` and `DOUBLE` of SQL*Loader are not supported on BS2000/OSD. Using these data types with SQL*Loader and External Tables produces unpredictable results.

Use the external, non-binary data type `FLOAT EXTERNAL` instead.

Multithreading functionality of direct path loads is not supported on BS2000.

Oracle Scheduler

External Jobs are not supported.

INIT.ORA Parameters

A few initialization parameters in the `INIT.ORA` file, described in the generic documentation are not supported by Oracle Database 12c Release 1 for BS2000/OSD. Refer to *Oracle Database Installation and Administration Guide for Fujitsu Siemens BS2000/OSD* for more information.

Oracle JVM

Oracle JVM, the Java Virtual Machine in Oracle Database, supports only JDK 6.

Archiving to Tape

Archiving to tape is not supported. The archive log files must always be created as disk files. However, you may use normal BS2000 backup procedures to back up the archive log files created by the archive process.

Import and Export

Consider the following information about Import and Export:

- Avoid ASCII/EBCDIC conversions by the operating system, FTP, or PERCON. Import and Export utilities perform their own conversions. Additional conversions render the files unusable.
- Import and export on tapes are not possible to or from more than one tape.

Oracle Data Pump Import and Oracle Data Pump Export

Consider the following information about Oracle Data Pump Import and Oracle Data Pump Export:

- Avoid ASCII/EBCDIC conversions by the operating system, FTP, or PERCON. Oracle Data Pump Import and Oracle Data Pump Export utilities perform their own conversions. Additional conversions render the files unusable.
- Tapes are not supported with Data Pump Export and Data Pump Import.

Globalization Support

User-defined character sets implemented by Customizing Locale Data as described in *Oracle Database Globalization Support Guide* are not supported in this release.

Unsupported Oracle Call Interface Features

The following features are currently not supported:

- OCI shared mode functionality
- OCI publish-subscribe functions
- OCI Thread package

SQL*Plus

The following remarks relate to SQL*Plus:

- SQL*Plus truncates and displays a warning message if the input lines exceed 511 characters.
- If you use the SQL*Plus `-s` option, then it must be the first option entered at the prompt.
- The internal message buffer is limited to 76 characters, therefore, certain messages are truncated. This typically occurs if a message includes a second message. In such cases, you must refer to the message number part of the second message.

See Also: *Oracle Database Error Messages Reference* or *Oracle Database Installation and Administration Guide for Fujitsu Siemens BS2000/OSD* for more information about the error message

- If ECHO is set to ON, TAB is set to ON, and you specify a spool file, then the listing of commands may be misaligned.

Issue with connect from an ASCII-based client

When you connect from an Oracle Database 12c Release 1 client, such as SQL*Plus, that is running on an ASCII-based platform, such as Linux or Oracle Solaris, to an Oracle Database 12c Release 1 instance that is running on Fujitsu BS2000/OSD, then the connect fails with ORA-1821 error message if the NLS_LANG environment variable is set.

This issue is tracked with Oracle bug 23266802.

This bug is fixed in Oracle Database 12c Release 2. If you use Oracle Database 12c Release 1 on the client side, then contact Oracle Support to request a patch for this bug.

This issue does not exist if you use previous Oracle Database releases on the client side, for example, Oracle Database 11g.

Connecting from Oracle Database 10g clients

Oracle Database 10g clients can connect to Oracle Database 12c Release 1 instances on Fujitsu BS2000/OSD, if the initialization parameter SEC_CASE_SENSITIVE_LOGON is set to FALSE. Otherwise, the connection fails with the following message:

```
ORA-01017: invalid username/password; logon denied
```

Global Data Service

Only Global Data Service (GDS) clients are supported on BS2000.

LogMiner

The following data types are not supported:

- Objects stored as VARRAYs
- Objects (Simple and Nested ADTs without Collections)
- XMLType data

Oracle Net Services

The following remarks relate to Oracle Net Services:

- When you specify a name for the listener in the `LISTENER.ORA` file, Oracle recommends that the name is less than 20 characters long. If you use a listener name with more than 20 characters, then you must specify a log directory (trace directory) and a log file (trace file).
- The listener can be started only if the POSIX subsystem is running.

Oracle Protocol Support for TCP/IP

The Internet Assigned Numbers Authority (IANA) divided port numbers into three ranges:

- Well Known Ports from 0 through 1023
- Registered Ports from 1024 through 49151
- Dynamic, or Private Ports, or both, from 49152 through 65535

Fujitsu documentation for TCP/IP on BS2000 recommends setting the privileged port to 2050. However, using a registered Oracle port number may cause conflicts. For example, if you set the port number for the listener process to 1521, then any Oracle process that tries to listen on such a registered port number may fail with the following error:

```
TNS-12545: Connect failed because target host or object does not exist
TNS-12560: TNS:protocol adapter error
TNS-00515: Connect failed because target host or object does not exist
BS2000 Error: 126: Can't assign requested address
BS2000 BCAM-RC: 40010020
```

The workaround is to use a non-privileged port, or to set the privileged port number to a value less than 1500, usually to 1024.

You can find more details about service names and port numbers at

<http://www.iana.org/assignments/service-names-port-numbers/service-names-port-numbers.xhtml>

POSIX Subsystem

Oracle Database 12c requires the POSIX subsystem and access to the POSIX file system. The following exception may occur:

The termination of the POSIX subsystem also terminates the Oracle Database instance.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

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E74140-02

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