



Release Notes

InterBase XE

September, 2010

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General Information

This chapter of the InterBase XE Release Notes provides information on the following topics:

- A summary of the new features provided in this release and the chapter and user guide that explains how to use them.
- Brief descriptions of the InterBase user guides you receive upon purchase.
- A list of contact numbers, email addresses, and websites.
- Instructions on how to migrate to InterBase XE from a previous release.

Note For maintenance release updates, including bug fixes since the last major release of InterBase XE, please see the InterBase XE [Readme.html](#).

What's new in InterBase XE?

Table 1.1 summarizes the new features added to InterBase XE release and identifies the user guide that explains how to use each one.

Table 1.1 New features in InterBase XE

Feature name	Description	User guide
InterBase 64-Bit Native Binary Application	InterBase XE is for customers primarily wanting to benefit from 64-bit capabilities of underlying systems. With the 64-bit edition, you can continue to use 32-bit InterBase applications.	The InterBase Operations Guide .
InterBase 32-Bit Native Binary Application	The <code>ib_install.exe</code> is delivered with the 32-bit Edition issue. You will need to run this installer if you want to test the 32-bit Edition on Windows.	The InterBase Operations Guide .
JDBC Driver Updates for Blob/Clob Support	New interfaces have been implemented with support the following: <code>java.sql.Blob</code> ; <code>java.sql.Clob</code> ; and <code>java.io.InputStream</code> .	The InterBase Developer's Guide .
Stronger Password Protection	This release implements stronger password protection on InterBase databases to comply with password requirements from the Payment Card Industry - Data Security Standard (PCI DSS). This additional functionality supports a longer effective password length, resulting in stronger password protection.	The InterBase Operations Guide .
Larger Database Cache Settings for 64-bit InterBase	There is now a larger database cache setting for 64-bit InterBase. The limit for the 64-bit engine is 75 million pages, as compared to 750K pages for 32-bit engines.	The InterBase Operations Guide .
EXECUTE STATEMENT for Stored Procedures	InterBase XE now provides support for the EXECUTE STATEMENT functionality. This feature enhances the InterBase Stored Procedure language. Once this is implemented, Stored Procedure developers can embed three variations of EXECUTE STATEMENT within their Stored Procedures. The variations depend on the number of rows returned from the EXECUTE STATEMENT command. The three cases are: No rows or data returned; One row of data returned; and Any number of data rows returned.	The InterBase Language Reference Guide

Table 1.1 New features in InterBase XE

Feature name	Description	User guide
Database Fast Sweep	With the implementation of the fast sweep optimization in InterBase XE, the memory allocation issue has been mitigated. The user has the option to configure their databases for automatic sweep. In cases where large databases have large archival or infrequently modified tables, a database sweep will have minimal impact on the performance of running transactional operations.	The InterBase Operation Guide
Table-Specific Blocking Factor		The InterBase Language Reference Guide
Larger Index Key Segment Size		The InterBase Operation Guide

About the InterBase Document Set

The document set in PDF format requires about 13MB of space on your disk. The documents install by default when “Client and Server” or “Client” is chosen during the InterBase install process. However, in a custom install, it is possible to choose an install that does not include the document set. If you want to install documents at a later time, run the InterBase install, choose Custom, and select the documentation.

You can also copy them from the Documentation directory of the InterBase CD-ROM or download file.

Table 1.2 provides a brief description of the subjects covered in each guide. Detailed command-line and step-by-step instructions are provided for most topics. Where applicable, instructions are also provided on how to perform a task or use a feature using IBConsole, the InterBase user interface.

Table 1.2 About the InterBase user guides

Guide Name	Description of topics covered
<i>Operations Guide</i>	<p>How-to information on working with InterBase databases. Topics include:</p> <ul style="list-style-type: none"> • Using IBConsole • Configuring and operating the InterBase server • Network configuration • Performing backups and restores • Using journaling and journal archiving • Database security • Interactive queries
<i>Data Definition Guide</i>	<p>How-to information on designing and building InterBase databases. Topics include:</p> <ul style="list-style-type: none"> • Specifying datatypes • Working with domains, tables and indexes • Working with procedures, triggers and generators • Encrypting databases and columns • Character sets and collation orders
<i>Developer's Guide</i>	<p>How-to information on developing InterBase database applications using Borland and Embarcadero development tools, JDBC, and ODBC. Topics include:</p> <ul style="list-style-type: none"> • Connecting to databases • Understanding datasets • Working with tables, queries, stored procedures, cached updated and events • Working with UDF and Blob filters • Importing and exporting data • Working with InterBase Services • Writing install wizards
<i>API Guide</i>	<p>How-to information on developing InterBase applications using the InterBase API interface. Topics include:</p> <ul style="list-style-type: none"> • Application requirements • Programming with the InterBase API • Working with databases, transactions, dynamic SQL, blob data, arrays, conversions, and service • Using the install and licensing APIs • Exporting XML • Handling error conditions • The InterBase API function reference

Table 1.2 About the InterBase user guides

Guide Name	Description of topics covered
<i>Embedded SQL Guide</i>	How-to information on developing InterBase applications using embedded SQL. Topics include: <ul style="list-style-type: none"> • Application requirements • Working with databases, transactions, data definition statements, data, dates and times, arrays, stored procedures and events • Error handling • Dynamic SQL • Preprocessing, compiling and linking
<i>Language Reference Guide</i>	This is a reference guide to InterBase elements. Topics include: <ul style="list-style-type: none"> • The SQL statement and function reference • Procedures and triggers • Keywords • Error codes and messages • System tables, temporary tables, and views • Character sets and collation orders
<i>IBsetup.html</i>	This document provides detailed installation and registration instructions for all platforms.
<i>Release Notes</i>	This document provides a description of the new features offered in this release, along with a summary of major bug fixes, and updated contact information.

Accessing the InterBase Docs

CD-ROM and download files

The document set is available in the *Doc* directory of your InterBase CD-ROM or download files.

Windows

There are links to each of the books in Start menu | Programs | InterBase | Documentation. You can, of course, copy these links to a more accessible location, or create your own links.

Linux, Solaris, and Mac OSX

To access the PDF document set, go to `<interbase_home>/doc`. You can then display any one of the six books or the Release Notes.

Acrobat Reader

You need Adobe Acrobat Reader to view the *.pdf document files.

Adobe Acrobat Reader is available for free in many languages from
<http://www.adobe.com/products/acrobat>

Contacting Embarcadero Technologies

Note Mailing addresses, and sales email addresses and phone numbers can be found on the Embarcadero websites. In addition, the technical support website, listed below, provides a number of examples and troubleshooting tips about using InterBase.

Table 1.3 Contact information

Websites

- For Embarcadero general products, contact, and company information: www.embarcadero.com
- For technical support: www.embarcadero.com/support
- For education services: www.embarcadero.com/services/education.php
- For Embarcadero Technologies general product, contact, and company information: www.embarcadero.com

Email addresses

- Embarcadero general information: info@embarcadero.com
- Embarcadero technical support: support@embarcadero.com

Telephone numbers

- Embarcadero technical support:
 - North America and Latin America:
 - United States/Canada: 1-800-523-7070
 - Brazil: +55-11-2165-8000
 - All Other Americas: 800-523-7070
 - Europe, Africa and Middle East:
 - France 0805 101 052
 - Germany 0800 664 9023
 - UK & Ireland 0800 007 5465
 - Netherlands 0800 020 0098
 - All Other EMEA +44 1628 684 470
 - Asia Pacific:
 - Australia 1 800 896 203
 - Japan +81 3 4577 4520
 - All other APAC +1 831-431-5100
 - Embarcadero headquarters: 415-834-3131

Migrating to InterBase XE

The following steps represent the general procedures for migrating from a previous version of InterBase to a newer version. For more information about InterBase migration, see Appendix A, “**Migrating to InterBase,**” in the *InterBase Operations Guide*.

- 1 Back-up all databases, including the security database, before un-installing the previous version.

- 2 Back-up the ibconfig file if it has been customized.
- 3 Un-install your previous server.
- 4 Install, register, and start the new server.
- 5 Restore your databases.

Note For a list of key words to avoid using in your databases, see the InterBase *Language Reference Guide*.

Fixed Bugs

This chapter lists bugs that have been fixed for the following InterBase releases:

- InterBase XE
- InterBase 2009 SP4
- InterBase 2009 SP3
- InterBase 2009 SP2
- InterBase 2009 SP1
- InterBase 2009
- InterBase 2007 SP3
- InterBase 2007 SP2
- InterBase 2007

Bugs fixed in InterBase XE

The table below lists the bugs that were resolved in InterBase XE.

Table 2.1 Bug fixes for InterBase XE

For InterBase XE:		
Bug Number	QC#	Description
INTB-772	37729	RAID 279996: An error occurs when trying to create or change a password that beings with a question mark.
INTB-675		NullPointerException (instead of an sql error message) thrown when losing the network connection and trying to run a query.
INTB-671	79851	getMetaData(). getPrecision() returning wrong value.
INTB-670	48152	JOIN of 2 stored procedures give "arithmetic exception error.
INTB-669	81786	Increase request impure space size from the current 256K limit to a larger value.
INTB-659	62255	RAID 260612: QLI crashes as soon as "SHOW FUNCTIONS" command is given.
INTB-654	50375	OnlineDump with multiple files.
INTB-653	55499	Inserting from VARCHAR field in one table to BLOB in another table inserts additional junk in the target table.
INTB-650		no T privilege with grant option on table/view TableName.
INTB-597	2311 77931	RAID 146832: ORDER BY using an index on a DATE column gives wrong order.
INTB-547	365	Non-SYSDBA db owner SELECT fails even with GRANTED rights on the table.
INTB-538		RAID 273806: Optimizer regression in JOINS since InterBase 2007 Service Pack changes.
INTB-523	77315	COALESCE and aggregate functions.
INTB-493		IndexOutOfBoundsExpection thrown when calling PreparedStatement executeBatch().
INTB-402		Unexpected behavior of database linger.
INTB-355		Parameterized query params order in SQLDA/SQLVAR not the same as visual order of question marks.
INTB-319		Possible Optimizer regression with fixes in the InterBase 2007 SP3.
INTB-267		Create Database from JDBC application does not respect character set requested.
INTB-264		RAID 272543: RDB\$FILTERS does not have a unique index on filter name leading to duplicate filters.

Table 2.1 Bug fixes for InterBase XE

For InterBase XE:		
Bug Number	QC#	Description
INTB-253		RAID 270024: InterBase cannot use 2GB+ database cache even if Large Address Aware flag was set.
INTB-236		RAID 271600: "Request Synchronization error" reported on 8-core system with heavy activity.
INTB-235		RAID 270959: Accessing ODS 10.x database leads to server crash.
INTB-151		RAID 269627: Unique superkey license files belonging to the same "addon" package are all not loaded by the licensing engine.
	3424	When you open the Properties form for a table or procedure and select the Permissions tab, the column headers rarely appear. If you select another tab and then come back to the Permissions tab, the column headers will be there.
	4989	I add a UDF with a param of type DATE, the UDF is created, but when I try to show the property of the UDF, IBConsole shows the Message: 'unsupported Datatype' The UDF cannot be dropped in IBConsole. The UDF works fine in ISQL, and can be dropped in ISQL This happens also with TIMESTAMP and TIME.
	6714	Create a table in an Interbase database and fill it with data. Then export the table to a Comma Separated Value file using IBConsole and the export works fine. Check the exported file using MS Excel and it appears to be fine. Then empty the table. But when I try and import data from the .csv file that I exported the table to, I get the following message: Access Violation at address xxxxxxxx in module 'IBConsole.exe' Read of address 00000000. This is the case with any .CSV file that I try to import data from.
	63968	Database Restore Fails: "No current record for fetch operation"
	63637	DB Restore can't be done on IBconsole.
	74598	The name of the directory that contains the IBConsole.xml file is misspelled.
	75028	When trying to change the data type for a domain, an error appears.
	76342	Metadata names longer than 22 characters are truncated.
	76616	When trying to connect as a different user from the InteractiveSQL, the connection window opens but it doesn't connect as a different user and an error message appears.
	76622	When disconnecting from a database using the InteractiveSQL then trying to reconnect to the database, an error message appears.
	79418	When using the IBConsole for creating a journal, a journal archive, and to archive the database, the Archive Database option returns an error message (this fails for all types of connections).

Table 2.1 Bug fixes for InterBase XE

For InterBase XE:		
Bug Number	QC#	Description
	79420	When creating a journal, a journal archive and a database archive for a database, using Interactive SQL, the 'Archive Database' option doesn't refresh after disconnecting from the database and then reconnecting to the database.
	80580	IBConsole, Open Table, Error.
	81324	Interactive SQL in IBConsole: truncated RDB\$ names.
	82503	When creating a database then a generator using Interactive SQL, an error appears. You then have to use Task Manager to terminate the process.
	82706	When using a field that can be null in the Primary Key constraint definition, then removing it from there, an error appears.
	82776	When creating an external function with an entry point larger than 67 chars, an unclear error message shows up.
	82829	When altering a view to add a second column, the table name is added incorrectly.
	82859	When altering a trigger by adding a local variable with the same name as another variable, then changing it back to the way it was, the changes cannot be made.
	82904	When choosing a value larger than 10 digits for the input type of a blob filter, an error message shows up and the Blob Filter Editor window closes.
	83369	When choosing the 'New Connection' option from the Tools menu to connect to a different database then what is running a query, the IBConsole shuts down.
	83370	When trying to see the License Manager from the Tools menu of the IBConsole, an error message appears.
	83820	When trying to create a blob filter with a duplicate name, the Cancel button doesn't work.
	83881	When creating a database with a name that already exists, the 'Cancel' button doesn't work.
	84783	Text cannot be copied inside the name area of procedures and triggers, even if the focus is inside the name area; the text is added inside the body area.
	84934	When using the IBConsole to encrypt a database, then deleting the encryption from the system table of encryptions and changing the value of EUA, an AV error message appears.
	85054	When performing a database sweep using the IBConsole, the text of the confirmation message isn't correctly aligned.
	85104	For InterBase XE, License Manager from the Tools menu of the IBConsole doesn't open, and an AV error message is shown instead.

Table 2.1 Bug fixes for InterBase XE

For InterBase XE:		
Bug Number	QC#	Description
	85514	When using the IBConsole to run a couple of queries without committing, disconnecting the database creates an AV error message.
	86294	When connecting to a database as sysds0 using IBConsole and trying to view data from a table that the user has select permission on, an error message appears.
	86737	EUA_USER and EUA_PASSWORD options must be added to Database Restore.
	86739	IBConsole should be using the new camel-cased and case-sensitive OTW parameter names (for IB OpenSSL clients).
	86749	SELECT COUNT(*) and SELECT AVG should return a SQL_INT64 type. If there is any code in IBConsole that uses 32-bit integer type local variable to receive this value, it should be changed to a 64-bit integer type.
	86924	IBConsole requires full path to backup file.
Doc Fixes	QC#	Description
INTB-773		Language Reference Guide: Chapter 3: WHEN...DO. Updated GDSCODE errcode. Also updated Table 5.5 with correct GDSCODE usage.
INTB-769		Operation Guide: Appendix B: Table B.1 <i>InterBase Specifications</i> . Updated maximum size of external table file.
INTB-744		Developer's Guide: Chapter 14 - <i>Applying Cached Updates with a Dataset Component Method</i> . Replaced old procedure example with a new IBTransaction1 example.
INTB-739		Language Reference Guide: Chapter 6 - Table 6.34. Added table RDB\$USERS.
INTB-736		Embedded SQL Guide: Chapter 13- Topic: <i>SQL Datatype Macro Constants</i> . Updated information on sqlsubtype settings.
INTB-735		Developer's Guide: Chapter 6 - Table 6.7. Updated integer information.
INTB-734		API Guide: Chapter 3 - <i>Environmental Variables Used by Interbase</i> . Added two new variables: IB_PROTOCOL and INTERBASE.
INTB-733		Language Reference Guide: Chapter 6 - Topic: <i>RDB\$DATABASE</i> . Added missing fields to table 6.1.
INTB-731		Language Reference Guide: Chapter 2 - <i>ALTER TABLE, ALTER DATABASE, CREATE ENCRYPTION, CREATE TABLE</i> . Added note to each topic: For detailed information on encryption and decryption, see the topics "Encrypting Data"(page 13-9) and "Decrypting Data" (page 13-11) in the Data Definition Guide.

Table 2.1 Bug fixes for InterBase XE

For InterBase XE:		
Bug Number	QC#	Description
INTB-728	22384	Operation Guide: Chapter 4 - Topic <i>Using ibmgr to Start and Stop the Server</i> . Instructions for starting InterBase under the interbase user account have been updated.
INTB-726		API Guide: Chapter 5. Added new topic: <i>Use of Commit/Rollback with Multidatabase Transaction</i> .
INTB-725		Developers Guide: Chapter 6: <i>Explanation of dsc_flags</i> . Added DSC-systems information to Table 6.5.
INTB-723		Updated installation information. Desktop and ToGo setups are only available for Windows O.S.
INTB-722		Embedded SQL Guide: Chapter 6 - Topic <i>Using Comparison Operators in Expressions</i> . Added Table 6.4 listing comparison operators in expressions.
INTB-720	5253	Developer's Guide: Chapter 4 - <i>Accessing InterClient extensions to the JDBC</i> . Added a suitable example for how to cast the JDBC driver object in the section.
INTB-719		Operation Guide: Chapter 8 - <i>Database Parameter Blocks</i> . isc_dpb_archive_journals and isc_dpb_archive_database not listed in documentation.
INTB-718		Operation Guide: Appendix A - Topic: <i>New InterBase Keywords</i> . Need the new Keywords introduced in InterBase 7.5 and above.
		RAID Issue 112111. Operation Guide: Chapter 11 - Topic <i>Edit</i> . On Windows platforms, EDIT calls the text editor specified by the EDITOR environment variable. If this environment variable is not defined, then EDIT uses the Microsoft mep Notepad editor.
		RAID Issue 251988. Operation Guide: Chapter 9 - <i>Journaling Tips and Best Practices</i> . Updated CHECKPOINT LENGTH information.
		RAID Issue 218084. Language Reference Guide: Chapter 6. TMP\$STATE field not documented in description for TMP\$DATABASE.
		RAID Issue 263959. Data Definition Guide: Chapter 13. gbak examples on page 13-17 have invalid syntax.
	23253	RAID Issue 238178. Language Reference Guide. Chapter 2. The SQL example for the CASE statement won't work because it is truncated.
		RAID Issue 194123. Language Reference Guide. Chapter 2. Yearday for extract is listed as returning values 1-366. It should say 0-365. Hour and minute are similarly wrong. They are listed as going from 1-23 and 1-59. They should list 0-23 and 0-59.

Table 2.1 Bug fixes for InterBase XE

For InterBase XE:		
Bug Number	QC#	Description
		<p>RAID Issue 256520. API Guide. Chapter 15.</p> <p>Signature for "isc_dsqli_batch_execute()" incorrectly includes "isc_db_handle *db_handle".</p> <p>Signature for "isc_dsqli_batch_execute()" incorrectly includes declaration using "ULONT"</p> <p>Signature for "isc_dsqli_batch_execute()" incorrectly includes declaration "int dialect" when actually the argument is implemented as an "unsigned short" in ibase.h</p>
		<p>RAID Issue 240455. API Guide. Chapter 15. Guide says isc_string_too_large error is generated when SQL is greater than 64K. 64K should be changed to 2 GB.</p>
		<p>RAID Issue 218053. Language Reference Guide. Chapter 2. ALTER DATABASE describes it as "Adds secondary files to the current database." This does not consider other new actions that can now be taken. Changed to "Changes the characteristics of a database".</p>
		<p>RAID Issue 120748. API Guide. Chapter 3. Remove ISC_DATABASE from Table 3.1. It is not implemented any longer.</p>
		<p>RAID Issue 106998. Operations Guide. Chapter 7. Error "OBJECT database_name IS IN USE" is incorrect.</p>
5742		<p>RAID Issue 192587. Data Definition Guide. Chapter 8. Documentation says you can't use UNION when creating a VIEW in DSQL. This hasn't been true since IB 5.6.</p>
84435		<p>RAID Issue 276427. Data Definition Guide. Chapter 14. UTF_8 Maximum character size is changed from 1 byte to VARCHAR(63).</p>

Bugs fixed in InterBase 2009 Update 4

The table below lists the bugs that were resolved in InterBase 2009.

Table 2.2 Bug fixes for IB 2009 Update 4:

For InterBase 2009 Update 4:		
Bug Number	QC#	Description
275463		INTB-412: Running delete statement two times causes constraint error, which causes the server to crash.
275462		INTB-411: Database corruption reported when deleting records from table with missing foreign key constraint index.
INTB-384		Indexes entries lost on savepoint rollback for updates across nested savepoints
274857 274858		INTB-356: Table's current format descriptor can be garbage collected during sweep.
273917		INTB-331: gds32.dll not getting installed in system 32 directory.
INTB-305		During certification, ibserver often starts claiming errors into the interbase.log recursively until it has taken up the whole disk space.
INTB-292		Prepared statement query fails on UTF8 database.
INTB-281		InterBase server crashing with a batchupdate query from Java.
272016		INTB-252: Event listener does not work with native OTW connection string in InterBase 2009 Update 2.
INTB-249		Trying to connect to OTW port without OTW settings causes client hangup.
270898		INTB-231: When executing SQL statements, JDBC driver returns SQLWarning beside the normal result, even on success.
INTB-230		Client crashes on DSQL error when interbase.msg cannot be found.
INTB-228		Wrong table name: Language Reference Manual, Table 5.3. refers to Table B-4. Should refer to Table 5.4

Bugs fixed in InterBase 2009 Update 3

The table below lists the bugs that were resolved in InterBase 2009.

Table 2.3 Bug fixes for IB 2009 Update 3:

For InterBase 2009 Update 3:		
Bug Number	QC#	Description
263854		Hot links from within the PDF documents to other PDF documents come up with an error
267667		Page xxxx wrong type (expected 7 and encountered 5) after many hours of stressful INSERT activity from numerous simultaneous clients.
268686		InterBase client on Windows Terminal Services reports "Cannot attach to Services Manager" when run for extended period of time, or if the server is subject to intense database activity.
268798		Inner join with Stored Procedure that selects from the same table results in "No current record for fetch operation".
269200		IBConsole Help is out of date on Windows Vista.
269555		Online Dump files have corrupted indexes and page errors when taken from an encrypted database during multi-client activity.
269558		Online Dumps are missing one (1) record after multi-client activity. The record is present in the source database, but is not included in the online dump.
270017		Multiple clients concurrently executing ALTER TABLE statement against different databases results in client error or hang.
270024		InterBase cannot use 2GB+ database cache even if Large Address Aware flag was set Check Operations Guide PDF manual, chapter:InterBase Limits section Various InterBase Limits, Table B.1, for new updates. Search for Maximum number of cache pages per database description.
270284		A complicated query involving joins between tables and stored procedures run very slowly.
270396		Java clients are unable to connect to databases that require a System Encryption Password, (SEP).
270898		When executing SQL statements, JDBC driver returns SQLWarning beside the normal result, even on success.
270959		Accessing ODS 10.x database leads to server crash.

Table 2.3 Bug fixes for IB 2009 Update 3:

For InterBase 2009 Update 3:		
Bug Number	QC#	Description
271600	75561	"Request Synchronization error" reported on 8-core system with heavy activity.
INTB-159		OTW/SSL connections do not work via InterBase JDBC driver. Check Developer's Guide PDF manual, chapter "Programming with JDBC" section "SSL file properties" for new updates.
INTB-230		Client crash on DSQL error when interbase.msg cannot be found.

Bugs fixed in InterBase 2009 Update 2

The table below lists the bugs that were resolved in InterBase 2009 Update 2.

Table 2.4 Bug fixes for IB 2009 Update 2:

For InterBase 2009 Update 2:		
Bug Number	QC#	Description
254988		Query with explicit and implicit joins results in "no current record for fetch operation" error
256996		Distinct in nested queries can return incorrect results
257272	65388	concurrent delete and select (and probably insert) cause database to be corrupted. "internal gds software consistency check (exceeded index level)" error in interbase.log
257670	57839	Join with Stored Procedure returns incorrect results
259585		Inner Join between two views which both have left joins results in error "no current record for fetch operation"
260489		If journal files are lost, connecting to the database may fail. Fix notes: A new GFIX switch (-disable wal) is provided to disassociate a database from its journal files. No cleanup of the journal files or journal archive files is attempted and it is the case that committed data may have been lost. This could occur because the lost or inaccessible journals may have committed data that was never applied to the database files proper. However, it becomes possible to attach the database to access existing data contained therein.
261953		Rogue TCP packet could cause server crash
261974		Server crash with big SORTMEM_BUFFER_SIZE on restore
263533		OTW: malformed connection string leads to server hang

Table 2.4 Bug fixes for IB 2009 Update 2:

For InterBase 2009 Update 2:		
Bug Number	QC#	Description
265145		Invalid data entered into a Unicode column hangs client on retrieval operation
265481/2		Journaling and encryption combination fails with “decryption of encryption value failed?”
265601		Running GBAK as a service incurs high CPU usage in the server
265824		Queries based on fields where the character_set_name and collation_name do not match and there is an index return no records
265905		Security vulnerabilities exploited by rogue clients
267372		InterBase cannot propagate events on both interfaces of a multihomed host
267433		Exceptions only displays first 67 characters. They should display 78 characters
267550		Server crashes with BUS alignment error on Solaris 10
267860	70915	Sweep under some conditions causes error "Maximum user count exceeded" and "Request depth exceeded for IRQ_93" in interbase.log
267874		Many users doing many inserts causes InterBase server crash with seg fault on Windows or Solaris if there are multiple CPUs
267963		After connecting to employee.gdb, subsequent validation of the database with gfix results in interbase.log having numerous "Page xxx is use but marked free"
268016		InterBase Services API has problems working on Windows Terminal Services

Bugs fixed in InterBase 2009 Update 1

The table below lists the bugs that were resolved in InterBase 2009 Update 1.

Table 2.5 Bug fixes for IB 2009 Update 1:

For InterBase 2009 Update 1:		
Bug Number	QC#	Description
	65969	Backup/Restore of encrypted databases not supported in IBConsole
265043		Encryption failed when database or column has a character set
265241		Re-encrypting a column crashes the server
258311		Restore using gbak with buffers set high and -o (one at a time) causes server to crash.

Table 2.5 Bug fixes for IB 2009 Update 1:

For InterBase 2009 Update 1:		
Bug Number	QC#	Description
		JDBC: DataBaseMetadata.getTables() does not work with delimited tables/columns
		JDBC: DataBaseMetadata.getTables() wrong ordering of result set
		JDBC: does not recognize InterBase 2009 reserved words

Bugs fixed in InterBase 2009

The table below lists the bugs that were resolved in InterBase 2009.

Table 2.6 Bug fixes for IB 2009:

For InterBase 2009:		
Bug Number	QC#	Description
240075		Running gfix -validate -full exhibits index corruption messages on table RDB\$DEPENDENCIES.
252301		IBMgr Cannot Start Server As A Service When Launched Directly From The Bin Directory. Instead, must be launched from the installed shortcut which passes "InterBase Server Manager [instance = gds_db]".
255784	56532	Running a select statement with specific OR conditions causes the InterBase server to crash.
255847		Validating a freshly restored database reports many errors in index RDB\$DEPENDENCIES.
256021	56533	JDBC driver: Calling PreparedStatement.addBatch() more than once results in error when calling PreparedStatement.executeBatch().
256054	53957	IBServer crash on select from table with date indexes.
257272		Concurrent delete and select (and probably insert) cause database to be corrupted. "internal gds software consistency check (exceeded index level)" error in interbase.log.
261546	51439	isc_info_num_buffers returns incorrect information.

Bugs fixed in InterBase 2007 SP3

For information on InterBase 2007 SP3, please refer to <http://edn.embarcadero.com/article/39103>.

Bugs fixed in InterBase 2007 SP2

The following bugs were resolved in InterBase 2007 SP2:

Table 2.7 Bug fixes for IB 2007 SP2

For InterBase 2007 SP2:		
Bug Number	QC#	Description
58205		Improve access method for full outer joins.
58257	47598	Left outer join performance without an index fixed.
58462	602721	Index is not used in a co-related sub select of an UPDATE statement, fixed.
60128	47916	Left outer join with table expressions not optimized when indexes should be used, fixed.
60269	20359	Query Optimization when using "IN" or "OR" keywords fixed.
61347	25160	Index is not used for the where clause when the query is outer join fixed.
219990	10264	Left Join on a big table completion lag fixed.
223805	597104	The optimizer uses a sequential table scan to perform co-related sub-query, fixed.
231879	47599	Data inserted in the last transaction not seen if the database is made read only, resolved.
239883	11219	Installing Desktop Edition as Administrator does not make Programs listing available to other Users, fixed.
243270		Connecting with 8.0 client to 7.1 server fails with unavailable database error, fixed.
243299	40486	InterBase 7.1 server crashes upon disconnect using 8.0 client with remote connection, fixed.
243679	47604	InterBase Server Manager starts as an ordinary user even if you are an administrator on Windows Vista, fixed.
248755		interclient.jar JDBC driver now installed as part of the InterBase SDK.
248850		Bookmarks are missing from Language Reference Manual, fixed.
249045	47600	InterBase 2007 Installer now works on SUSE Linux 10.
249232		INSERT/COMMIT for each record delay when Journaling is enabled on some Windows platforms fixed.
251265	47602	Query with many joins returns "size of optimizer block exceeded", fixed.
251608	44565	Optimizer block exceeded error fixed.
251610	43874	Bad query result on LEFT JOIN when multiple filters in the join, resolved.
256161		Nested loops in triggers crashes the server, fixed.

Note The table above also contains bug fixes from SP1.

Bugs fixed in InterBase 2007

The following bugs were resolved in InterBase 2007:

Table 2.8 Bug fixes for IB 2007

For InterBase 2007:		
Bug Number	QC#	Description
60140		Backup and Restore causes problem with adding constraints
112113		Invalid 'CREATE SHADOW' statement will cause the ISQL crash.
120473		DEFAULT is allowed for BLOBs, but causes errors (such as Conversion error from string "BLOB") when used
122700		FOREIGN KEY constraint DDL fails with multiple indices on REFERENCE key
124028		IBConsole cannot see the view data
124771		The error "constraint not found" is raised when one attempts to create a foreign key constraint if the parent table has both a Primary Key constraint and a separate unique index on the referenced column(s) and the name of the unique index sorts before RDB\$PRIMARY
127168		InterBase server creates databases without absolute path in System32 directory
148143		Instead of getting the normal error message that Field T1 can not be ***NULL*** you get a "conversion error from string "BLOB" "
157531		Obsolete ibconfig parameters included in ibconfig file
169965		SELECT * FROM TMP\$PROCEDURES will crash server if a procedure has been dropped
200567	7997	Support to INSERT and UPDATE in BLOB field with Sql command
213125		It is impossible to drop a trigger that starts with the name RDB\$
217985		List of System temporary tables (currently page 244) does not list TMP\$HEAPS and TMP\$TRIGGERS
218040		Invalid INTERBASE env variable value gives misleading error
228356		Allow connection string to a different port to specify a different port number in addition to the port label we already have
230142		If you select 'no' for 'run interbase server as a service on Linux', it runs InterBase server as a service on Linux.

Table 2.8 Bug fixes for IB 2007

For InterBase 2007:		
Bug Number	QC#	Description
237809		Better error messages required for database re-routing failures
238414		Select after update generates cannot update read-only view error.
238638		A connection made via a server alias will fail if other non alias connections are concurrent.
239254		Embedded data user authentication section missing from manual.
239622	24859	gds32.dll enhancement, require spb support for instance name
239690		Select from view which calls UDF that returns a blob can cause server crash
239730	13183	Alias support for IBConsole
239847	28518	DataDirect ODBC driver doesn't work with SELECT procs with input params
239880	14563	Add support to command select, insert, update on Blob fields
239882	11220	Incomplete entries in Services File
239886	9014	Database Alias fails when database already opened via full path
240793	31288	BLOB as (VAR)CHAR functionality failure in Stored Procedures
241006		IBConsole crashes when you access "IBConsole help" under the "Help" menu