Data types and subtypes

BIGINT data type

Added in: 1.5

Description

BIGINT is the SQL99-compliant 64-bit signed integer type. It is available in Dialect 3 only.

BIGINT numbers range from -2^{63} .. $2^{63}-1$, or -9,223,372,036,854,775,808 .. 9,223,372,036,854,775,807.

Example

```
create table WholeLottaRecords (
  id bigint not null primary key,
  description varchar(32)
)
```

See also:

BIGINT

BLOB data type

Changed in: 2.0

Description

Several enhancements have been implemented for text BLOBs:

- DML COLLATE clauses are now supported.
- Equality comparisons can be performed on the full BLOB contents.
- Character set conversions are possible when assigning a BLOB to a BLOB or a string to a BLOB.

When defining binary BLOBs, the mnemonic binary can now be used instead of the integer 0.

Examples

```
select NameBlob from MyTable
  where NameBlob collate pt_br = 'João'

create table MyPictures (
  id int not null primary key,
  title varchar(40),
```

```
description varchar(200),
picture blob sub_type binary
```

See also:

[BLOB](#)

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New character sets

Added in: 1.0, 1.5, 2.0

The following table lists the character sets added in Firebird.

Table 4.1. Character sets new in Firebird

Name	Max bytes/ch.	Languages	Added in
DOS737	1	Greek	1.5
DOS775	1	Baltic	1.5
DOS858	1	= DOS850 plus € sign	1.5
DOS862	1	Hebrew	1.5
DOS864	1	Arabic	1.5
DOS866	1	Russian	1.5
DOS869	1	Modern Greek	1.5
ISO8859_2	1	Latin-2, Central European	1.0
ISO8859_3	1	Latin-3, Southern European	1.5
ISO8859_4	1	Latin-4, Northern European	1.5
ISO8859_5	1	Cyrillic	1.5
ISO8859_6	1	Arabic	1.5
ISO8859_7	1	Greek	1.5
ISO8859_8	1	Hebrew	1.5
ISO8859_9	1	Latin-5, Turkish	1.5
ISO8859_13	1	Latin-7, Baltic Rim	1.5
KOI8R	1	Russian	2.0
KOI8U	1	Ukrainian	2.0
UTF8(*)	4	All	2.0
WIN1255	1	Hebrew	1.5
WIN1256	1	Arabic	1.5
WIN1257	1	Baltic	1.5
WIN1258	1	Vietnamese	2.0

(*) In Firebird 1.5, UTF8 is an alias for UNICODE_FSS. This character set has some inherent problems. In Firebird 2, UTF8 is a character set in its own right, without the drawbacks of UNICODE_FSS.

See also:

Character set NONE handling changed

Changed in: 1.5.1

Description

Firebird 1.5.1 has improved the way character set NONE data are moved to and from fields or variables with another character set, resulting in fewer transliteration errors. For more details, see the Note at the end of the book.

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New collations

Added in: 1.0, 1.5, 1.5.1, 2.0

The following table lists the collations added in Firebird. The **Details** column is based on what has been reported in the Release Notes and other documents. The information in this column is probably incomplete; some collations with an empty *Details* field may still be case insensitive (*ci*), accent insensitive (*ai*) or dictionary-sorted (*dic*).

Table 4.2. Collations new in Firebird

Character set	Collation	Language	Details	Added in
ISO8859_1	ES_ES_CI_AI	Spanish	ci, ai	2.0
	PT_BR	Brazilian Portuguese	ci, ai	2.0
ISO8859_2	CS_CZ	Czech		1.0
	ISO_HUN	Hungarian		1.5
	ISO_PLK	Polish		2.0
ISO8859_13	LT_LT	Lithuanian		1.5.1
UTF8	UCS_BASIC	All		2.0
	UNICODE	All	dic	2.0
WIN1250	BS_BA	Bosnian		2.0
	PXW_HUN	Hungarian	ci	1.0
	WIN_CZ	Czech	ci	2.0
	WIN_CZ_CI_AI	Czech	ci, ai	2.0
WIN1251	WIN1251_UA	Ukrainian and Russian		1.5
WIN1252	WIN_PTBR	Brazilian Portuguese	ci, ai	2.0
WIN1257	WIN1257_EE	Estonian	dic	2.0
	WIN1257_LT	Lithuanian	dic	2.0
	WIN1257_LV	Latvian	dic	2.0

| KOI8R | KOI8R_RU | Russian | dic | 2.0 |
| KOI8U | KOI8U_UA | Ukrainian | dic | 2.0 |

A note on the UTF8 collations:

The UCS_BASIC collation sorts in Unicode code-point order: A, B, a, b, á... This is exactly the same as UTF8 with no collation specified. UCS_BASIC was added to comply with the SQL standard.

The UNICODE collation sorts using UCA (Unicode Collation Algorithm): a, A, á, b, B...