



Firebird release strategy and roadmap for 2015/2016

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Firebird Project
<http://www.firebirdsql.org/>



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Progress through years 2013-2014

Maintenance

2.1.5 Update 1 and 2.5.2 Update 1

2.1.6 (end-of-series)

2.5.3



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V3 development

Alpha 1, Alpha 2

Beta 1 is tagged, awaiting QA

Beta 2 is next, then RC



Progress through years 2013-2014

Documentation

More activity

Language Reference is ready in Russian

Translation to English is planned

Sponsorship / donations needed!



New features and improvements

Alpha / Beta

Database linter

Properties for database users

DDL permissions

SET ROLE statement

GBAK can skip specific tables

Mapping OS users/groups to DB users/roles

Cursors as record-type variables

Remote protocol optimization

New features and improvements

Remote protocol optimization

- Denser message representation

- Avoid transmitting NULLs

- Better prefetch size calculation

- Early prefetch request (being tested)

- Protocol compression (scheduled for Beta 2)

New features and improvements

Beta 2 TODO

Finalize API

Remove 2^{32} transaction counter limit

Bi-directional cursors surfaced in DSQL

Online database validation

Remote protocol compression

IPv6 support



New features and improvements

Already postponed features

Granting roles to other roles

User groups (implicit roles)

New data access algorithms

Value distribution histograms

Optimizer improvements

V3 release schedule

Beta 2 in Q1 2015, followed by RC

No features / improvements after Beta 2

RC are for regression fixes only

Switch to the new development



V3 release schedule

Beta 2 in Q1 2015, followed by RC1

No features / improvements after Beta 2

RC are for regression fixes only

Switch to the new development

Final release in 2015

Regressions are possible, testing is required

Duration of the RC stage depends on your feedback!

Launch campaign is started: www.firebird3.com

Changing the game rules

Time based schedule

Primary (mandatory) features

- ♦ must be included into the release
- ♦ ready for preview before Alpha versions

Secondary (optional) features

- ♦ scheduled for both Alpha and Beta versions
- ♦ may be either included or postponed

Reseaches

- ♦ must be investigated and either rescheduled as features or postponed



Time based schedule

Point releases

No RC for point releases anymore

Automated QA for point releases

Two point releases per year



Time based schedule

Point releases

No RC for point releases anymore

Automated QA for point releases

Two point releases per year

Major releases

Major version number bumped

Full development cycle: 18-24 months

One major release every 12-18 months

Time based schedule

Minor releases

Minor releases are theoretically possible

Contain only backports for simple features

Must not significantly affect the schedule

100% backward compatibility

Not scheduled separately,
replace the next point release



Future development

Next major release

To be named v4

Scheduled for 2016



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Feature planning

Started in April 2014, ideas are being collected

Voting in the tracker

The short list is created, priorities are being assigned

Sponsors can influence the priorities with their money



Future development

Decision making

Collect RFEs from users, sponsors, core devs

Discuss the list among project admins

Assign the priorities (together with sponsors)

Separate core (mandatory) features and secondary (optional) features

Compose and publish the planning board

Discuss cutoff cases when timeframes are gone



Firebird 4.0 planning

Top priorities

HA / fault tolerance

Performance / high load

VLDB support

Administration / monitoring

SQL features

Security



Firebird 4.0 planning

Feature list

Metadata names longer than 31 characters

SQL schemas

Numerics with precision longer than 18 digits

Optimizer statistics, including histograms

Predefined system roles, sysop permissions

Support for time zones

Built-in logical and physical replication

Job/task scheduler

Firebird 4.0 planning

Feature list (cont'd)

External database links, heterogenous queries

Bi-directional index navigation

Batch API operations

Implicit transactions

New data access paths, subquery transformations

Query timeouts

Partial indices

Shared metadata cache

Firebird 4.0 planning

Research list

Transactional indices, index-only scans

Parallel operations during restore

Bulk data inserts

GIS support

Tablespaces

Table/index partitioning

Materialized views



Questions?

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