



Firebird Development in 2012: What's New

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

Packages released

- **Firebird 2.0.7**
 - April 2012
 - 26 bugs fixed
 - End-of-life announcement

- **Firebird 2.1.5**
 - June 2012
 - 58 bugs fixed
 - 2 improvements



Packages being prepared

- **Firebird 2.5.2: summary**
 - October-November 2012
 - 73 bugs fixed totally
 - Ten of them are server crashes
 - One case of index corruption
 - Insert performance regression
 - 7 improvements
 - Delayed due to MacOS issues



Packages being prepared

- **Firebird 2.5.2: improvements**
 - Remote backup/restore via Services API
 - Sweep actions are logged in firebird.log
 - Tracing the sweep actions
 - Tracing the runtime engine errors
 - Worked around issues with file-system cache on recent Windows versions

Firebird 3.0 development

- **Architecture and ODS**
 - Mostly completed
 - Provider API is being finalized
 - Longish data streams: in progress
 - Per-database authentication: in progress
 - New permissions: in progress
 - No other showstoppers for Alpha

Firebird 3.0 development

- **Shared cache and synchronization (SS vs SMP)**
 - Shared page cache: completed
 - Metadata cache is moved to the connection level
 - Memory consumption will be analyzed
 - SuperServer specific optimizations are possible
 - Page prefetch is being implemented



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▪ Misc tasks

- Window (analytic) functions
- Monitoring extensions
- Runtime statistics extensions
- Timing statistics
- Merging some patches by RedSoft
- Optimizer and data access paths improvements



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▪ Private researches

- Better error reporting (constraint violations, object-in-use errors, network errors)
- GPRE and embedded SQL get updated to sync with new language features
- TRUNCATE TABLE statement
- Solutions for 2^{31} transaction ID limit
- Improved network protocol
- Various high-load optimizations



Questions?