

Popular Firebird Myths and Rumors

(that you may never have heard about)

Dmitrii Kuzmenko, IBSurgeon

Firebird Conference 2019

Berlin, 17-19 October



YOUR PREMIER SOURCE OF FIREBIRD SUPPORT

IBSurgeon



**MOSCOW
EXCHANGE**



Fast Reports
Reporting must be fast!



GBAK writes garbage to the backup

- *because of option -g - it prevents garbage from going to backup*
- gbak never writes garbage to backup, because gbak is a common (not 100%) application, that reads data from the database in snapshot transaction, and writes it to the backup
- none transaction isolation show garbage to the reader
- keep versions in backup – for what reason???

Reading produces versions

- don't know where it came from
- Firebird creates record versions on UPDATE and DELETE (surprise?)

Embedded or Desktop

- *Firebird is suitable only for small tasks*
- *or, it is “Free InterBase”*
- Maybe this came from 1994 when InterBase was named by Borland as “Workgroup server”. This was kind of marketing mistake – they tried to reach a larger audience, but instead stigmatized InterBase as “server for small workgroups”
This accordingly affected Firebird.



Databases – 100gb, 200, 500, up to 7 terabytes
Active users (connections) – 10, 100, 600, 2500

Bad for use with DB bigger than 200mb

- This came from the old Windows 95/98 times when someone had performance problems with 200mb database
- this is about the benefits of social networks – one blurted out, and a thousand read

Firebird designed for Windows

- *and that's why Firebird works badly on Linux*
- Well, Firebird have 10-20 times more Windows downloads, than Linux downloads
- InterBase was created when Windows did not exist. And it was created for Unix.
- Performance is not much different (depends mostly on drivers quality)

Share your database!

- *Database need to be shared on a network, i.e. to be accessible via network*
- NO!
- Firebird is not a file-server, it's a client-server, even in Embedded mode (local connection, whatever).
Firebird engine always work directly with the database file
- sharing DB via network can cause database corruption (by 2 separate Firebird servers)

Stored procedures store execution plan

- Based on the fact, that after first call procedure metadata with the computed plan is stored in metadata cache, until the connection that called this procedure will be closed
- Similar to the case when you prepare a statement, do not close it, and then wonder why it's plan does not change

Firebird is unsafe

- *databases break down and all that*
- This came from users, who never do backups
- “Firebird is so undemanding, that it can work on the shitty cheap equipment that has not been serviced for years”
- Developers of single-user programs!
Implement silent backups in your applications!

Extention .gdb or .fdb is required

- No, it can be even .txt, but this is dangerous for local databases since users sometimes try to open database with Notepad, WinWord, OpenOffice, etc.

Arrays



- Array datatype were made for some Boeing project, for recording measurements from the airport runway
- Arrays based on blobs, reading array element is available only with select.



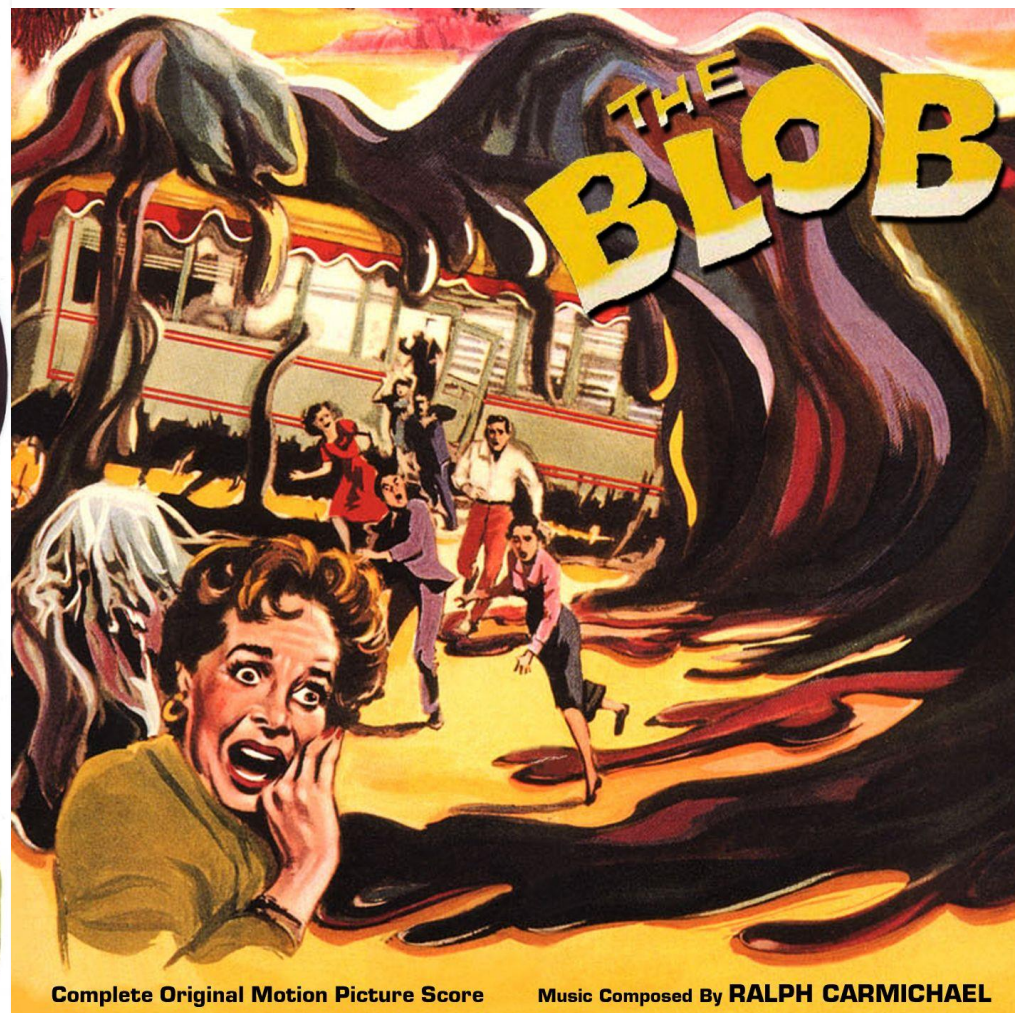
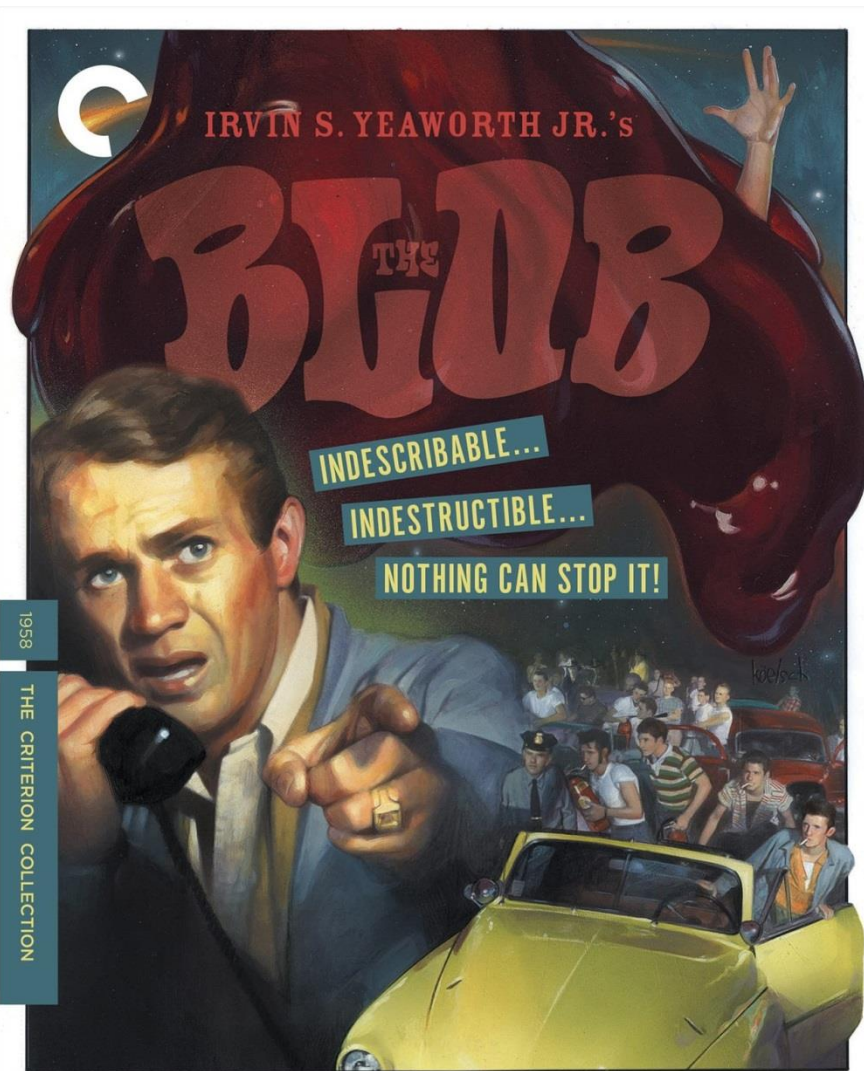
Created by Andrew Sergeev, 1999

- **Paul Beach:** https://www.ibphoenix.com/resources/documents/community/doc_298
Welcome to a "marketing" story that has got a little out of hand over the years. A number of years ago (and I am relying on memory here), InterBase signed a VAR contract with a company called Magnavox for the building of an advanced artillery fire and control system (AFTADS) for the US military. The system would consist of a central fire control that would instruct artillery (including tanks) to fire onto projected targets. InterBase was chosen to be the database for this system, because when a shell was fired the server managing the fire control system locally would crash. InterBase was the only database that Magnavox tested, that would recover automatically and come back on line in seconds. Whether this system was ever fully implemented I don't know. But as you say it makes a really good story.

Born in the shower?



- **Ann Harrison:** https://www.ibphoenix.com/resources/documents/history/doc_292
InterBase started in the shower. Specifically in the blue-tiled walk-in shower at 297 Reedy Meadow Road, Groton, Massachusetts, USA. There, looking through the shower window into the woods, Jim Starkey had the "Eureka" that eventually became InterBase.
- The chance to write a relational database drew Jim to DEC in the mid-seventies, but the prevailing wisdom said that only network databases could support commercial applications. That misconception took four years to dispel, during which Jim designed and wrote Datatrieve, a relational query language that ran on flat files and DBMS-32. Datatrieve users wanted more flexibility, better concurrency control, and atomic transactions. When DEC finally embraced relational technology, Jim was still in charge of Datatrieve, so another group began designing what became Rdb. They debated the meaning of "relational" and the meaning of "database." They scoured the literature and held wonderful discussions about degrees of consistency and predicate locking and shadowing techniques. But they didn't start coding.
- Jim got impatient, and began playing with shadowing, which he saw as a way to provide a repeatable read without blocking updates. Then, one morning in the shower, he realized that the shadows could be also prevent update conflicts and undo failed transactions. The multi-generational database revealed itself in that shower.



Blob don't stand for nothin'. It isn't an acronym for "basic large object" or "binary large object". A blob is the thing that ate Cincinnati, Cleveland, or whatever.

- Jim Starkey: https://www.ibphoenix.com/resources/documents/history/doc_299
- Barry Robinson, my boss at DEC, was prone to wandering around muttering "blobs, blobs, we gotta have blobs." When I asked what a blob was, he pointed out that I was the architect and that was my job.
- Marooned in Colorado Springs (where Barry lived) because of a snow storm in Massachusetts (where I lived), and unable to derive the grand theory of transaction consistency, I invented the blob instead. Ah ha! A concept to hang on a wonder name!
- The Rdb/VMS guys declared war on my sublime creation, the blob. First, they argued, they never lost a sales because they didn't have blobs. Second, documents and images didn't belong in databases; that's what sequential files were for. Third, if you did want to store a document, the right way to handle it was to normalize the lines. [No, I'm not making this up. Ask Ann. She almost never lies.] Finally, the term "blob" was unprofessional.
- The retired bouncer hired to head the DSRI process rules that blobs were in, but had to be renamed "segmented strings" to avoid offending Clevelandites (or whatever).
- Much later, Terry McKiever, an Apollo marketing gnome, fell in love with the concept of blob, but felt the blob needed to be an acronym. She started calling them "basic large objects." Apollo never private labelled the product, so this should be irrelevant. Unfortunately, her ravings got the attention of Informix (I think) who announced that they would support "binary large objects" at some future time. The damage was done.
- Somebody asked a DEC product manager if and when Rdb/VMS would support blobs. "Sometime in the future" was the "product guidance." (The DEC, now Oracle, development group still know them as blob.).
- Ashton Tate buys InterBase, Borland buys Ashton Tate. Some demented Borland type styles the humble blob "BLOb". Jim gags.

- Do not believe everything that is written on social networks.
Check the source of information.
- Thank you!
ib-aid.com
support@ib-aid.com

About IBSurgeon

IBSurgeon



- Tools and consulting
- Platinum Sponsor of Firebird Foundation
- Founded in 2002: 17 years of Firebird and InterBase recoveries and consulting
- Based in Moscow, Russia

www.ib-aid.com

www.ibsurgeon.com