

AnceusDB

**The World's Fastest Database
10,000X Faster
Techpoint MIRA Award Finalist**

Prevel Technology

The Original Inventors of In-Memory Database Technology

Ask yourself...

What if you needed the data right now?

What if a business, an aircraft or a life... depended on it?

Traditional relational systems are fine. But mission-critical, time-domain systems demand a different class of response.

What if your database could operate at 10,000 times the speed of relational systems?

Introducing **Anceus_{tm}**, the most advanced database available today. The only option for true real-time performance.

After you check the benchmarks, ask for a live demonstration. You've never seen anything like this.

Today's Information Challenge

The world has speeded up since we developed the first in-memory database in the late 1980s. Time is even more critical in every operation today. The goal is to get information now, in real-time.

Anceus_{tm} delivers real-time database solutions with tangible benefits:

- ✓ **Reduces hardware costs.**
- ✓ **Reduces support/admin expense.**
- ✓ **Eliminates administrative downtime.**
- ✓ **Continuous 24 X 7 X 365 – Forever.**
- ✓ **Reduce development time and cost.**
- ✓ **Improve response time, reliability.**
- ✓ **Extreme scalability to 8 exabytes.**

Light Speed Information

Relational database technology has dominated the market for 30 years, driven by its efficient use of disk drives. But the efficiency came at a painful price that became intolerable on 64 bit systems.

For large, complex, high response or high reliability systems, the results have often been unimpressive. The compromises built into the relational model result in excessive hardware cost, design failures (systems that could not be deployed as designed), maintenance costs greater than the original development and frequent downtime required for "clean-up."

The Prevel Technology design team rejected the compromises and launched a six year effort to deliver a better approach.

We began from the ground up, measuring and rethinking what databases do and how they do it. Instead of an incremental improvement in relational technology, we invented a new approach. We tested the barriers to speed then eliminated them. We tracked the causes of planned downtime then eliminated them. We analyzed the primary design failure modes then eliminated them.

The results are in. Transaction speed exploded, normalization failures are gone, and we can guarantee no database administration downtime, short of power or hardware failure.



Revolutionary Capabilities

For almost 30 years we've set the standard for performance and reliability, whether in robotic vehicles, manufacturing systems, real-time SPC, telecom switching, or invoice processing.

With **Ancelus_{tm}** we raise the bar again.

- **Performance:** 10,000X faster than RDB. Bigger gains in large or complex systems.
- **Hardware \$:** Reduced by 10x-100x.
- **Design \$:** Reduced by 40-80%.
- **System admin \$:** Less than 1 sec admin functions. No long waits for maintenance.
- **Design failures:** Normalization and scalability failures eliminated.
- **Never down for database administration**
: Add, modify or delete rows, columns, tables or properties in a live DB with <100 nano-sec lock time.
- **Performance decay:** No exponential decay w/ size. Less than 7 microseconds added to retrieval time for each doubling of the database size.
- **64 bit architecture:** Designed for 64 bit addresses (8 exabytes).
- **Journaling & Replication:** n-way multi-site replication; continuous star or sequential backup & hot failover.
- **Multi-byte UTF8 Support** for I18N character set applications.
- **Native XML structure:** Easy import and export of XML information.
- **Application modes for stand-alone use or as an accelerator for any RDB.**

Unmatched Performance

- **Size + Performance**
- **Complexity + Speed**
- **Scalability + Uptime**
- **Predictable, Repeatable, Reliable**

About Prevel

Prevel Technology has delivered leading edge real-time technology for three decades. Our systems operate in mission-critical roles at some of the world's largest companies:

- **Automotive:** Ford Motor Company, Delphi Corporation (all plants), Cadillac Division – General Motors, Goodyear, Navistar.

- **Electronics;** ICL, Motorola, Delphi, Marconi, Hewlett Packard.

- **Aerospace:** Lockheed Martin, Boeing - McDonald Douglas division, GE.

- **Process:** Kodak, Pilkington Glass, M&M Mars, Eli Lilly.

- **Telecom:** AT&T, Agilent SS7 network switch,, Vodaphone,

Orange, Sema, GTE, Lucent, Shanghai D-K, Marconi .

- **Software:** Infor Syteline version 7 and later; Oracle caching on Stratus.
- **Robotics:** Indy Robot Racing entry in the DARPA Grand Challenge.

Real-World Benchmarks

Three Table Join, SQL range select: 200 million row, 2 column main table; 12,000 hits in range

Three Table Join Results			
	RDB	Ancelus	Ratio
First Return	230 seconds	270 micro sec	850,000 X
Full List	230 seconds	33 mili sec	7,000 X
Address Resolution	Variable	140 nano sec	NA
Transaction/Sec	53 T/s	371,000 T/s	7,000 X
Dual Core T/S	53 T/s	722,000 T/s	13,600 X
Add Column	3,940 seconds	800 mili sec	5,000 X
Lock Time	3,940 seconds	<100 nano sec	4 x 10 ¹³ X
Out of Service	3,940 seconds	0	NA
Dataspace Required	14.1 Giga bytes	3.2 GB	0.23 X

Ancelus advantage increases with database size or complexity

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