

Action Zen Mobile: Embedded database for Android & iOS

Build secure, scalable, and intelligent mobile applications with seamless data sync.

Action Zen Mobile database engine for Android and iOS focuses squarely on the needs of Edge and IoT application developers, providing persistent local and distributed data across intelligent applications embedded in smart devices. Develop using the Android SDK, iOS SDK, and other 3rd party tools and deploy on any standard or embedded platform running Android or iOS. Action Zen Mobile database includes AES 256-bit encryption for data at rest and supports zero ETL data sharing to any Action Zen family server or client database.

Zen Mobile database is a NoSQL and SQL, zero DBA, embeddable, nano-footprint (5 MB minimum) edge database for SIs, ISVs, and OEMs that need to embed a data management platform in their Mobile apps, from smart phones to PoS terminals to industrial IoT devices. With direct data access via APIs, self-tuning, reporting, data portability, exceptional reliability, and compatibility, IoT and Edge developers can deliver apps at scale across a wide range of platforms and development languages and environments.

Zero Database Administration

Set it and forget it. Edge computing in the world of consumer device and industrial IoT apps means no DBA. Zen Mobile database is built for non-IT environments, removing need for consultants or DBA supervision. Whether you elect to never touch your app or continually patch and redeploy it, Zen Mobile database for Android and iOS won't break your app under any circumstances.

NoSQL and SQL

Zen Mobile database offers SQL/NoSQL access for performance and local data processing and analytics support, providing the perfect combination of speed and flexibility.

This enables fast read and quick insert, update and delete performance alongside full ACID response on writes. Zen Mobile database provides a single API for NoSQL access via the Btrieve 2 APIs across both mobile platforms and SDKs for most popular programming languages including C/C++/C#, Java, and Python.



Key Benefits

- Simplify embedded app development with Zero DBA, developer-friendly database
- Handle JSON, BLOB, time-series, and relational data with NoSQL and SQL data access
- Improve developer productivity with a single API across popular programming languages
- Ensure uninterrupted data operations even without network availability or unreliable connectivity



Supported Platforms

- Android 5 or higher
- iOS 10.3 or higher
- Android Things 1.0 or higher
- Android SDK 25 or higher
- Xcode 9.3 with iOS SDK 11.3
- Actian Zen Mobile SDK

Teach yourself Zen.

Quickly and easily get up to speed on installing, configuring, and embedding next-generation Edge data management functionality.

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Data Portability

Zen Mobile database supports the same data types including JSON and BLOB and file formats as the rest of the Actian Zen products, so accessing and moving data between Android- or iOS-based devices and an ARM device like Raspberry Pi running Windows IoT server or Windows or Linux servers requires none of the typical ETL overhead. Plus, data portability extends across all supported platforms and multiple versions of Actian Zen database products. Seamless portability greatly simplifies development, deployment and maintenance. No unsecured ETL work or other overhead, just copy data and go.

Backward Compatibility

Backward compatibility has long been a top priority for Actian Zen and earlier Pervasive SQL (PSQL) versions. Upgrading to the latest release is designed to be easy, with no need to migrate data or rewrite code or modify existing data files and tables. Just keep moving smoothly from release to release with the same low-stress maintenance and possibilities for innovation.

New Btrieve API

Java and C/C++ application developers can take advantage of the new version of the Btrieve 2 API, with the same access calls as the original, but now including integrated auto timestamping for time-series data. Access the performance and flexibility of the Btrieve engine without the complexity. The Btrieve 2 API SDK also includes Simplified Wrapper and Interface Generator (SWIG) files for C#, Perl, PHP, and Python, giving developers in those languages Btrieve data access with a quicker learning curve.

A World of Use Cases

Zen Mobile database for Android and iOS is ready to handle real-world solutions currently being fielded on millions of Intel and ARM processors in smart phones, taking the application knowledge of this community into mission-critical embedded applications across a range of devices for time-series, JSON, and BLOB data.

Rather than collect and centralize all data in the cloud to determine actions back at the remote data source or gateway, increasingly data is locally stored for low-latency processing and analysis to meet end-user performance, security, and decision requirements. Meanwhile, only relevant data moves to the cloud for additional data management and analytics.

Smart Devices for Consumer and Industrial IoT

Whether it's smart phones or smart tractors, or a network of sensors at a chemical processing plant, local apps are no longer operating as a "silo of things." Bespoke Historians and SQLite, for example, are designed for siloed applications, handling a single write stream with a few gigabytes.

Actian Zen Mobile database for Android and iOS is designed to embed in a stand-alone application and with zero ETL data sharing across server environments, collectively supporting terabytes of data.

Intelligent Gateways, Complex Machines and Instrumentation

The Android ecosystem unifies two separate communities, mobile apps and IoT apps, under one umbrella, leveraging the Android SDK, ADT, Eclipse, and other 3rd party tools for a new class and range of devices from very small with an MCU and 64MB of memory. Android Things 1.0 also provides integration with Google Cloud and Google's Machine Learning platform, distributing embedded intelligence across the Edge.

Actian Zen Mobile provides the backbone for embedded intelligence with local persistent memory. By combining it with Actian Zen Edge as an aggregation and collection point in gateways and other complex instrumentation and Actian Data Platform as a cloud-based Big Data Analytics platform on Microsoft Azure and Amazon AWS, Actian provides full data management support across the entire range of Edge devices and multi-cloud environments.

Request a free demo or visit <https://www.actian.com/databases/zen> to learn more.

About Actian

Actian makes data easy. We deliver cloud, hybrid cloud, and on-premises data solutions that simplify how people connect, manage, and analyze data. We transform business by enabling customers to make confident, data-driven decisions that accelerate their organization's growth. Our data platform integrates seamlessly, performs reliably, and delivers at industry-leading speeds. Learn more about Actian, a division of HCLSoftware: www.actian.com.

