

# Actian Zen IoT Server

Zero-DBA, embeddable database for Raspbian and IoT Core

## Key Benefits

SQL and NoSQL

Zero-DBA

Data Portability Across  
Platforms and Versions

Small Footprint

Simple Upgrades

Backward Compatibility

## Supported Platforms

Raspbian

Windows IoT Core  
for Intel and ARM

The Actian Zen Embedded database family now includes a new edition, Zen IoT Server, Actian's first product focused squarely on the needs of the IoT developer. Running on Raspbian and Windows IoT Core, it extends the features of classic Zen Embedded editions to these worldwide platforms.

Zen IoT Server is a SQL/NoSQL, zero-DBA, embeddable, small footprint database suited to the needs of ISV and OEM providers of IoT solutions. With both relational and direct data access, self-tuning, exceptional reliability, data portability, easy upgrades, and backward compatibility, IoT solution developers can deliver applications at scale across a wide range of platforms. Without having to manage collaboration among teams working in different environments with different data formats. Without later getting buried by support costs. With more time and energy left to innovating.

## SQL and NoSQL

Actian Zen IoT Server includes SQL access for reporting and NoSQL access for performance, providing the perfect combination of speed and flexibility. Developers can choose among several methods of direct access to data without going through a relational layer. This enables fast read and quick insert, update and delete performance. Actian Zen IoT Server supports SQL access via ODBC and NoSQL access via the Btrieve and Btrieve 2 APIs.

## Zero Database Administration

Set it and forget it. Edge computing in the world of industrial IoT means no DBA. As with all Actian Zen Embedded products, Zen IoT Server is built for environments with low and no IT. We don't require consultants and don't need DBA supervision. Zen IoT Server just runs, and runs, and runs.

## Data Portability

Zen IoT Server supports the same data types and file formats as the rest of the Actian Zen product line, so accessing and moving data between an ARM device like Raspberry Pi and Windows or Linux servers requires none of the typical ETL overhead. Plus, data compatibility extends across all of the supported platforms and multiple versions of Actian Zen database products. Seamless portability greatly simplifies development, deployment and maintenance. No ETL work or other overhead, just copy files and go.

## Backward Compatibility

Backward compatibility has long been a top priority for Actian Zen and earlier PSQL versions. Upgrading to the latest release is designed to be easy, with no need to migrate data, rewrite or recompile code, or even reinstall existing applications. Just keep moving smoothly from release to release. Zen IoT Server offers the same low-stress maintenance.

## New Btrieve C and C++ API

C and C++ application developers can take advantage of the new version of the Zen embedded database Btrieve 2 API, with all of the same access calls as the original but in a simplified, more intuitive client library. Access the performance and flexibility of the Btrieve engine without the complexity. The Btrieve 2 API SDK also includes SWIG (Simplified Wrapper and Interface Generator) files for Perl, PHP and Python, giving developers in those languages Btrieve data access with a quicker learning curve.

## A World of Use Cases

Zen IoT Server is ready to manage data in the real world solutions currently being fielded in millions of Intel and ARM processors. IoT is redefining many industries. Rather than collect and centralize data to decide whether to trigger action at remote locations, now it is increasingly stored where it is gathered and analyzed on the spot to take action.

### Health Care

A Raspberry Pi with in a hospital room can control a video camera and combine patient movement images with health monitor data, both stored on Zen IoT Server, for an application determining whether to call for medical assistance.

### IT

Data center monitoring software can use Zen IoT Server to store and combine infrared images, temperature readings, CPU load, and other system information needed to automatically adjust cooling, reallocate resources, even shut down selected processors, then verify the results.

### Agriculture

Farm systems can use applications running on Zen IoT Server to apply soil, crop, and weather data to reduce water costs by irrigating only where and when needed.

## Zen IoT Server Availability

- Raspbian and Windows IoT Core
- ARM and Intel
- 30–40MB installed footprint
- Standard installation for 1–10 concurrent users to cover most common scenarios
- Evaluation version available
- 500-user developer kit (Q1 2018)
- 100, 250, and 1000-user pack for commercial deployment (Q1 2018)



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