

## FlipDB

Combine the flexibility of CAS with the power of a relational database management system.

### FlipDB

FlipDB is a relational database management system (RDBMS), programming language, and object model wrapped up in a rich graphical user interface (GUI) for Microsoft Windows 32 and 64 bit platforms. FlipDB was designed from the ground up with a focus on solving the complex data problems of the mortgage and asset finance business, but it is a general purpose application suitable for a wide range of industries and problems. FlipDB provides immediate, out-of-the-box functionality for ad hoc data analysis, manipulation and reporting, while simultaneously providing a foundation for building enterprise-wide, multi-user, industrial-strength solutions.

Mortgages push the limits of many systems due to the quantity of data items, variety of products, constant innovation, and a never-ending stream of file formats and standards. Mortgage industry reporting requires repeated full-table scans, taxing the limits of traditional database management systems. Whole-loan mortgage trading and securitization requires massive amounts of data analysis, manipulation and reporting, often over an extended period of time. Data conversion is a major problem in the mortgage industry, and ETL (extract, translate, and load) processes are the daily routine of mortgage trading, rather than periodic one-off tasks for an IT department. Many facets of the mortgage industry require just the right balance of transaction-oriented and analytic database features as well spreadsheet functionality, not often found in a single product. Conventional solutions to this problem require multiple products, a large technology stack, and a wide range of technical skills and staff. The results are often difficult to achieve, costly to build and maintain, and error prone. FlipDB provides a single, coherent and unified environment ideally suited for building solutions to a wide range of mortgage related problems.

### The FlipDB GUI

FlipDB has a rich, native Windows GUI, which is a requirement for complex, data intensive applications. A browser-based application simply cannot provide a satisfactory user experience for the type of work that FlipDB is designed to do.

### The RDBMS

At the heart of FlipDB is a column-oriented, multi-user, relational database management system. The DBMS is specifically designed to support a mix of on-line transaction processing (OLTP) and on-line analytic processing (OLAP) in a unified environment with no duplication of data.

FlipDB uses extreme multi-value concurrency control (XMVCC), where no data is ever overwritten. In addition to being the foundation for an extremely reliable and robust data store for concurrent use, XMVCC makes FlipDB a temporal DBMS in that a query may not only be applied to the current state of a database, but to any past state as well. The practical uses of this feature cannot be overstated. Finally, XMVCC ensures complete and secure audit trails, with full history of every change to every data item. FlipDB supports atomicity, consistency, isolation, and durability (ACID).

### The Object Model and Programming Language

All of the functionality of FlipDB, including the RDBMS, ancillary data structures, and the report writing tools, is exposed through a single, unified object model. The object model is simple yet provides a rich set of functionality to solve a wide range of problems.

FlipDB has a full-featured programming language specifically designed to work with column-oriented databases, and fully integrated with the FlipDB object model. This means that the FlipDB database query language and programming language are one and the same.

### Lean More

Our Youtube channel [FlipDBVideo](#) is a series of 5 minute instructional screencasts. These presentations cover a broad range of topics on FlipDB, from high level tours of the GUI, to the detailed use of very specific features. These videos are instructional and are 100% FlipDB. There is no music, no powerpoint, no talking head, and no animations of business people walking around with their mobile devices making brilliant decisions on their lunch break.