

## erwin® DM NoSQL

## At a Glance

erwin® DM NoSQL gives business and technical stakeholders a complete and contextual view of their MongoDB assets. Then users can discover, visualize, document, design and deploy MongoDB instances in an efficient and cost-effective way, mitigating the risks inherent to managing mission-critical data assets.

## KEY FEATURES

- Import and visualize erwin DM models
- Transform entity relation diagrams to a visual MongoDB representation using our patent-pending Query-Optimized Modeling™
- Forward-engineer MongoDB schema generation scripts
- Reverse-engineer hosted MongoDB databases
- Define and visualize MongoDB relationships for documentation

## KEY BENEFITS/RESULTS

- Enable traditional DBMS teams and developers to work effectively with MongoDB
- Break down the complexities of NoSQL through modeling and visualization
- Document NoSQL data sources for easier discovery and understanding
- Expose NoSQL data sources to the enterprise in a standardized and governed way

**Business Challenges:** As organizations strive for data-centricity and a data-driven approach to business, they look for new ways of capturing relevant data streams and turning them into actionable information. This leads data management vendors to innovate in response to these new data use cases. With innovation often comes disruption, and NoSQL is one of the disrupters currently impacting the data management space. However, NoSQL does not necessarily lend itself to many traditional use cases requiring us to maintain and integrate traditional database platforms with new “un-structured” data sources in a hybrid data architecture. The whole-sale rip and replace of functioning legacy systems is unwarranted and unfeasible. This makes the challenge of adopting NoSQL in an organization two-fold: 1) mastering and managing this new technology while 2) integrating it into an expansive and complex infrastructure.

There is a high level of maturity and rigor in managing traditional data sources. But NoSQL data sources are still seen as separate, almost outsourced entities managed outside mainstream practices by the lines of business that procure them. This approach can be expensive and risky when companies want to integrate all data sources.

NoSQL or “Big Data” has been driven by the “3 Vs”: volume, velocity and variety, including sensor data, email logs, click-stream data, etc., as well as social media and the Internet of Things (IoT).

To address these drivers, data form, structure and storage has had to fundamentally change, using constructs such as documents, hash tables, graphs, and distributed file systems among a myriad of other approaches. Therefore, traditional referential integrity, constraints and clearly described structures for easy querying have been lost, creating a virtual black box.

But the business cares little for the technical distinctions of the data management “black box.” Business data is business data, with the main concerns being its veracity and value. Accountability, transparency, quality and reusability is required for all data. It needs to be trusted, so data-driven decisions can be made with confidence.

**Solution Overview:** erwin DM NoSQL helps companies manage their MongoDB data sources with rigorous agility. Extending the capabilities of erwin DM, erwin DM NoSQL enables organizations to take logical data designs and transform them into visual models that reflect native MongoDB structures with the code required to create them in their environments. It also automates the capture and creation of visual models of MongoDB instances that already exist. Our unique model-driven discovery, documentation, analysis, design and deployment of MongoDB structures ensures organizations effectively exploit this emerging, mission-critical data management approach out of the gate.

- **Software-as-a-Service:** erwin DM NoSQL is a 100% SaaS-based tool, providing everything you need for a monthly subscription fee. You can access the software anywhere, anytime with any device. SaaS means there is no software to implement or install; just login for day-one access and use. Support is included, and product updates are automatic behind the scenes, so the latest version always runs.
- **Flexible SaaS Options:** Hosting ensures high availability and a robust, scalable infrastructure with no expensive overhead or resourcing requirements. Customers can purchase the product as multi-tenant, with shared infrastructure, in the U.S. or U.K. geographies, or single tenant, providing completely dedicated infrastructure and resources.
- **Ease of Use and Guided Task Automation:** A web-based tool, erwin DM NoSQL enables your team to work from anywhere. The intuitive interface ensures all users are capable and effective in working with MongoDB out of the gate, ensuring faster time to value with your NoSQL investments.
- **Import and Visualization of erwin DM Models:** Take advantage of erwin DM and its industry-leading analysis and design capabilities. Import erwin DM models for discovery, visualization and analysis to drive your MongoDB data source definitions and design.
- **Transformation of Entity Relation Designs to Native MongoDB Structures:** erwin DM NoSQL provides Query-Optimized Modeling™ guided de-normalization options that users can choose to transform traditional data models and

logical data designs into rich, visual NoSQL models that can be used to represent and engineer MongoDB databases.

- **Forward-Engineering of MongoDB Schema**

**Generation Scripts:** Once your physical design is created, erwin DM NoSQL automates the creation of JSON-like document definition scripts that can be used to instantiate your MongoDB database, allowing for the efficient, accurate deployment of NoSQL designs into your hosted environment.

- **Reverse-Engineering of Hosted MongoDB Databases:**

erwin DM NoSQL provides a connection manager to your hosted MongoDB instances, enabling the automated creation of native NoSQL models from data source definitions previously deployed in MongoDB based on statistical data analysis.

- **Relationship Definition for Documentation:**

erwin DM NoSQL allows you to specify relationships between data elements within your NoSQL model for documentation and analysis. These relationships will guide developers and users in better understanding data value chains and analysis paths that naturally exist but are not explicitly defined in this unstructured data management environment.

- **Model Cloning:** erwin DM NoSQL enables modelers to clone models for updating and editing while maintaining versions of the model for traceability, control and lifecycle management.

- **Support for MongoDB Collections:** erwin DM NoSQL supports the creation and maintenance of embedded collections, as well as reference collections in support of scenario analysis to identify the proper structure required.

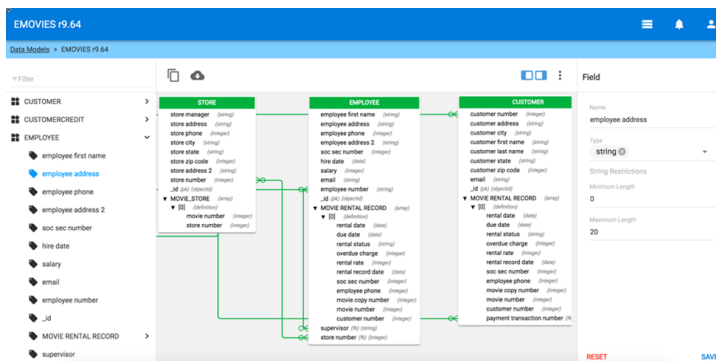
- **Object Properties Editor:** Key model object properties can be edited and displayed in the erwin DM NoSQL properties pane that is context aware and easily accessed through the right-hand menu.

- **Data Model Dashboard:** erwin DM NoSQL stores all models centrally in the cloud and delivers a model access dashboard that hierarchically displays transformed, reversed and cloned models, complete with source and other pertinent metadata. This makes it easy to identify and access the appropriate model, especially for teams.

- **Diagram Comments:** erwin DM NoSQL enables the creation and storage of user comments to facilitate collaboration and extended documentation to promote business alignment and clarity of data sources deployed in MongoDB.

- **Internal and External Notifications:** erwin DM NoSQL provides end-user notifications both in-tool and via email, updating modelers of the status and results of key tool operations and processes.

erwin DM NoSQL supports the creation and management of visual data models that enable organizations to discover, design, document and deploy native MongoDB data structures and mission-critical databases.



**Critical Differentiators:** erwin DM NoSQL extends our “any data, anywhere” (Any<sup>2</sup>) approach in erwin DM with on-demand data modeling and visualization for MongoDB data structures.

- **Empowering Native Design and Deployment for NoSQL Data Structures:** erwin DM NoSQL is the first and only enterprise-class data modeling solution to provide native (non-relational) modeling support for MongoDB, automating the creation of platform-specific deployment scripts.

- **Enabling the Discovery and Visualization of NoSQL Databases:** erwin DM NoSQL will reverse-engineer existing MongoDB databases into graphical models, enabling users to create documentation relationships to show users, developers and administrators how the data is logically related.

- **Simplifying the Transformation of Relational Schema to NoSQL Constructs:** erwin DM NoSQL and our patent-pending Query-Optimized Modeling™ provides guided de-normalization options that take the pain out of migrating traditional database models to the MongoDB platform.

- **Delivering On-Demand Modeling for MongoDB Environments:** erwin DM NoSQL is a 100% SaaS-based tool, providing full capabilities wherever and whenever using any device. With no software to deploy, just login and start modeling value for your enterprise.

### Related Products:

- **erwin Data Modeler Standard Edition:** Conceptual, logical, physical and dimensional model creation and deployment
- **erwin Data Modeler Workgroup Edition:** Repository-based data modeler for collaboration and model lifecycle management
- **erwin Business Process:** Visualize your system interactions, business processes and organizational hierarchies to support compliance, collaboration and knowledge management
- **erwin Enterprise Architecture (EA):** On-premise suite of EA tools that can be highly customized for integration into the customer environment
- **erwin EA Agile:** SaaS-based, framework-driven EA solution for modeling, analysis and design
- **erwin Cloudcore:** SaaS-based data modeling and enterprise architecture bundle

**For more information, please visit [www.erwin.com](http://www.erwin.com)**

erwin, Inc. makes the world's No. 1 data modeling software, trusted by more than 50,000 data professionals in 60+ countries. Combined with enterprise architecture, business process modeling, data governance and collaboration solutions, erwin provides the industry's only unified data management platform that uses any data from anywhere to drive operational improvements and growth. The erwin Data Management Platform is the foundation of mission-critical data programs in government agencies and leading financial institutions, retailers and healthcare companies around the world.