Taming the Chaos of Uncontrolled Data Design:
EM-SOS!™ from Sandhill Consultants

Get the most from your CA ERwin® data modeling investment — with world-class professional services, tools and training from Sandhill Consultants.

Data modeling tools enable organizations to simplify database design, automate time-consuming tasks, and accelerate the creation of high quality and high performance transactional and data warehouse databases.

Data modeling is a potent tool in today's complex business environment, but multinational operations, mergers, increased regulatory requirements, and higher-velocity business decisions and business information distribution are forcing executives and IT organizations to address critical IT system integration issues. At stake is the reliability and trustworthiness of their core business asset: their data.

Most organizations today understand the powerful business advantages of leveraging advanced data modeling tools to achieve a unified view of their strategic data assets. However, many are missing the vital internal resources or expertise to tame the "Tower of Babel" of multiple data structures and systems built at different times, by different teams, and to different or non-existent standards. While those older solutions served their business needs in the past, new business realities have set the next level of requirements for a modern and effective modeling infrastructure for controlling their increasingly complex data-modeling environment.

Organizations lacking a formal model management process or data modeling standards and procedures find themselves constantly re-creating data structures on an ad hoc basis. Efficiently reusing vital data is the key ingredient for realizing a return on your modeling environment investment, and the path to data modeling ROI begins with establishing clearly defined standards and procedures—with EM-SOS!™ from Sandhill Consultants.

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Sandhill Consultants is a Computer Associates Elite Channel Partner for the entire CA ERwin® data modeling suite, offering unsurpassed CA ERwin® modeling expertise, structured analysis, and the latest design methods and tools. EM-SOS!™ (Enterprise Modeling Set of Standards) from Sandhill Consultants is a specialized tool that enables organizations to quickly plan, launch, and maintain their CA ERwin® metadata design, management and deployment effort by establishing standards and procedures essential to supporting operational requirements and driving business success.

Comprehensive and easily customizable for specific needs, EM-SOS!™ provides all the information necessary for implementing an efficient and effective modeling environment using fewer internal resources. EM-SOS!™ provides more than 25 critical standards, procedures, checklists, forms and templates, including comprehensive "how-to" instructions presented via an intuitive HTML format. Combined with Sandhill's modeling infrastructure consulting expertise, organizations can quickly create the standards and procedures they need to leverage the power and promise of CA ERwin® data modeling.

Standards And Procedures For Business Success

Most organizations using data modeling today share similar modeling issues and challenges. Solutions vary according to each company's organizational structure, modeling staff size, number of modeling locations, and more. Establishing a formal modeling infrastructure helps solve many data modeling technical issues, but it is also vital to overcoming larger business challenges.

Governance: Audit requirements

Audit requirements play an increasingly important role for companies impacted by Sarbanes-Oxley requirements. As an example, Wall Street firms are often required to have their data models pass audit reviews for change control and approved production data structures. This level of conformance and consistency is not possible until these firms institute a comprehensive set of modeling standards and procedures. Additionally, other industries and government agencies are facing increased audit requirements including: pipeline safety, food safety, transportation security and healthcare to name a few.

Internal review requirements

Many organizations have a formal internal project methodology, or life cycle review requirement that demands models and associated deliverables withstand a formal review. Organizations lacking the means to demonstrate specifics of how models are created, maintained, and used as sources for database creation will find it extremely difficult to track projects and survive the scrutiny of an internal review board.

Data integrity issues

Every organization requires data they can "trust" — a life-and-death imperative for organizations involved with medical services and health care. However, there is no easy way for organizations to understand which data structures are the most current and accurate if those data structures are redundant and exist across multiple

databases. Establishing a modeling infrastructure that resists the creation of redundant data—while enforcing consistency and reusability—ensures high data integrity. Establishing consistent model object structures and definitions produces a higher level of data quality. The result: reliable master reference data (or corporate and enterprise data) that can be shared with confidence.

Opportunity enhancement and waste reduction: Sharable and reusable data structures

The more an organization can reuse and repurpose existing model structures, the greater the modeling return on investment. If data models are required to conform to a formal infrastructure life cycle, the resulting approved structures can be reused for future projects, resulting in a savings of time, money and resources.

In addition, these structures become "enterprise" data available to every modeling department throughout the organization, regardless of organizational or geographic location. Some organizations have documented standards, but lacking a modeling infrastructure that guides the consistent sharing of models, the standards and models of any one area cannot successfully be migrated to an enterprise level. This unfortunate situation causes a tremendous amount of rework, and the cost and effort associated with this rework often far exceeds the expense of establishing a proper infrastructure to begin with.

Organization and business alignment: Communication problems

The goal of every enterprise standards program is to enable sharing of "approved" information, but some programs fail because their information cannot easily be communicated or shared. Companies with a distributed organizational structure or modeling environment need to create a standardized format for all infrastructure elements, preventing miscommunication problems and ensuring the data is easily located, accessible and well-maintained.

Business flexibility requirements

Businesses continually grapple with changing market needs, and must able to respond quickly to limited time-to-market opportunities. Organizations that can successfully respond to change are those that can quickly find or create needed data, rapidly modify the database to support new requirements, and easily manage the changed shared objects.

Make Or Buy?

Knowing what is needed and "getting there" are the two challenges driving a make-or-buy decision. EM-SOS!™ from Sandhill Consultants was specifically developed to enable organizations to save time and money building a modeling infrastructure to ensure the organization's data design will serve present and future needs.

Data modeling is not strictly a "technical" activity. The requirement to build, maintain, and share data models emerges from day-to-day business demands and ongoing challenges that must systematically recognized and resolved. However, establishing a formal model management process and building data modeling standards and procedures often require a unique combination of skills and expertise:

- Extensive experience with data modeling standards and procedures to understand precisely what will and will not work in a specific environment.
- Well-developed teamwork and organizational skills for ascertaining what currently works, and discovering systemic inefficiencies, bottlenecks and potential problems.

- Exceptional communication and written skills for presenting and explaining technical and business needs and formally documenting standards and procedures.
- Collaboration building skills to assure that stakeholders and participants will champion the kind of model driven, standards based infrastructure required.

Rarely does an in-house employee or team member fit this demanding job description. If such a qualified person is identified, rarely can this valuable employee be spared from current duties. Further, few organizations can afford the budget and resources required to build an internal team tasked with initiating and completing a modeling infrastructure project from start to finish. The solution: an experienced data modeling advisor that can help jumpstart your CA ERwin® modeling environment efforts.

Sandhill: Your Trusted Standards And Procedures Partner

EM-SOS!™ is backed by the unsurpassed depth of modeling expertise of Sandhill's CA ERwin® data modelers, architects and training consultants. Building on broad experience with structured analysis, design methods and tools, Sandhill Consultants helps your organization create a modeling standards and procedures strategy that ensures data consistency, non-redundancy and reusability of model objects.

EM-SOS!™ is also used as a comparison point for your organization's existing standards and procedures. Sandhill consultants use EM-SOS!™ to analyze your current modeling environment to determine the extent and status of existing standards, procedures, forms, templates, checklists and more.

Your trusted partner and data modeling advisor, Sandhill Consultants combines its deep CA ERwin® experience with unrivalled data modeling expertise and an unmatched reputation as a trusted partner and advisor. When your business size or complexity demands the data modeling power of CA ERwin®, only Sandhill offers the accumulated knowledge, penetrating insight and data architecture savvy that your business needs to succeed.

To request additional information on Sandhill's Professional Services, or schedule a phone call from one of our CA ERwin® professionals, please e-mail: EMSOS@sandhillconsultants.com

EM-SOS!™ Content List

EM-SOS!™ content has been written from a "best practices" point of view, giving tips specifically for the CA ERwin® Modeling Suite, including valuable modeling infrastructure insights.

Blueprints:
- Building an Enterprise Data Model

Standards:
- Class Word List
- Diagram Naming
- Library Structure and Naming
- Logical Data Model Object Naming
- Logical Domain List
- Model Manager Profiles
- Physical Domain List
- Physical Model Object Naming

Procedures:
- Administrative Change Control
- Backup
- Design Layer Architecture
- Issue Resolution

- Logical Data Model Submission and Deliverables
- Model Change Control
- Model Creation and Population
- Model Merge
- New User – Model Manager
- Non-Conformance
- Notification and Update
- Physical Model Submission and Deliverables
- Physical Model Synchronization
- Stewardship
- Versioning

Forms:
- Administrative Change Control Form
- Logical Model Review Form
- Logical Model Submission Checklist
- New User Profile Form
- Physical Data Model Review Form
- Physical Data Model Submission Form

Active Model Templates:
- Naming
- Domain
- Physical Data Model Configuration