

**Realize Your Product Promise™**

**ANSYS®**

**EKM**

## ANSYS EKM provides an open collaboration platform for simulation IP management.

The unmatched multiphysics portfolio includes tools to efficiently leverage CAE data, adding confidence to your engineering toolkit.

Today’s product development environment is global, complex and extremely competitive. Businesses race to build in product innovation, shorten development cycles and reduce costs — all to capture mind and market share. At the same time, there has been a quantum leap in the way realistic simulation has driven remarkable product achievements.

Complex processes and the resulting data explosion call for effective ways to manage simulation IP. An extension to the broader PLM approach, the

integration between design and simulation presents a new set of challenges. Simulation involves cross-domain practices; a distributed workforce using various tools, processes and formats; OEM–supplier ecosystem restrictions; material/weld database access; knowledge/resource connectivity; and regulatory pressures.

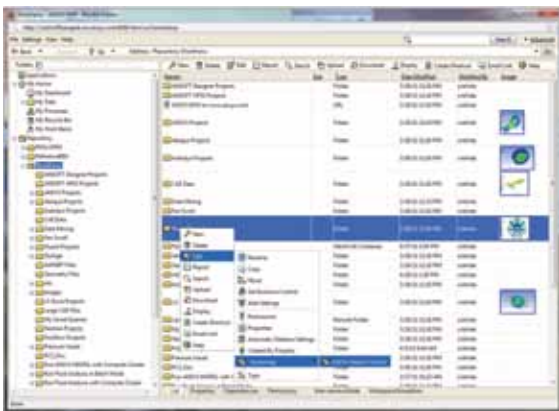
### Retain and Re-Use Data

ANSYS EKM is the framework for making quicker and informed CAE decisions. Best-in-class search, meta-data extraction and reporting capabilities allow initiation of new design projects based on knowledge learned from previous design attempts. Users have access to a host of project- and content-management capabilities designed specifically for work-in-progress and archival CAE needs.

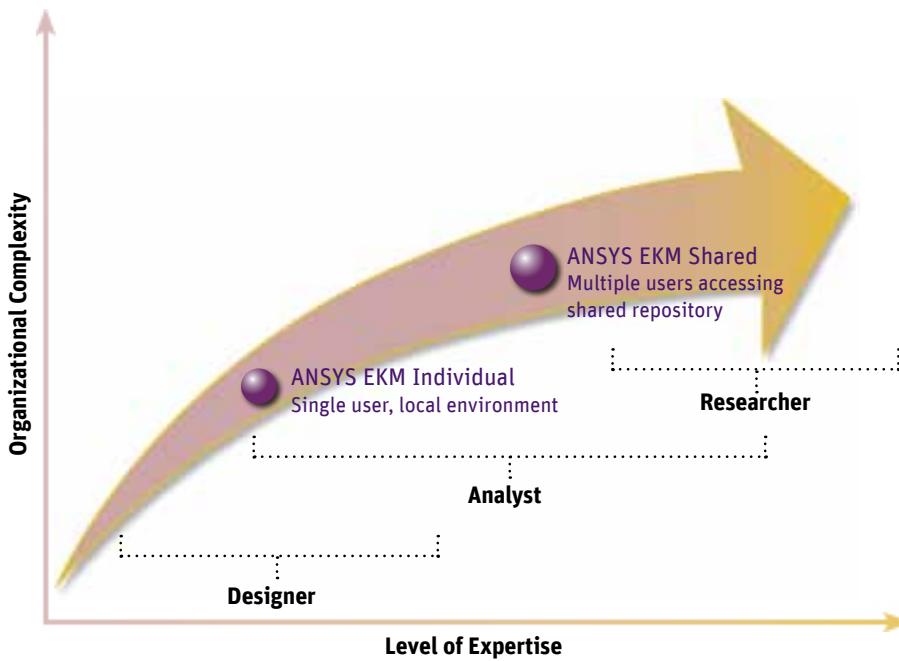
### Standardize on Best Practices

Companies are adopting progressive approaches to eliminate or reduce manual rework. Their goal is consistent and repeatable processes,

The solution is an end-to-end support system



EKM user interface shows a simple way to list and view data and project folders.



The EKM solution provides benefits to all levels of an enterprise, from the individual engineer interested in spending less time handling data and more time focusing on true engineering efforts to the entire organization looking for increased productivity in all aspects of its simulation activities.

whenever possible, to reduce costs and improve productivity. With EKM you can capture and deploy such processes throughout your organization in a standardized manner.

### A Tool that Integrates Distributed Teams

Product design and manufacturing are increasingly becoming globally distributed. ANSYS enables the concept of “simulation anywhere.” EKM addresses the needs of multi-users and multi-site collaborative environments for data storage, search and retrieval, extraction, access, and comparison. You can leverage skills and knowledge across both the enterprise and supply chain.

### Regulatory Compliance and Lifecycle Support

The complex OEM–supplier ecosystem brings restraints including data access and governance policies. EKM provides real-time traceability and audit trails based on customers’ CAE regulatory compliance needs. It supports full CAE data and lifecycle management needs and data archival.



MANN+HUMMEL invests in ANSYS EKM, easily accessing and re-using historical engineering simulation information — which speeds creation of innovative automotive designs.

*“We chose ANSYS EKM because our engineers in multiple locations frequently need to collaborate in real time. The tool’s data management capabilities make it straightforward for our engineers to organize and track multiple versions of files that are created during a typical design and analysis cycle.”*

**Dr. Martin Lehmann**  
Head, Simulation Filter Elements  
MANN+HUMMEL



Oil and gas industry giant Petrobras employs innovative tools to solve its challenges, including ANSYS EKM. The organization receives simulation requests from refineries and production units, and most involve similar equipment configurations, such as pressure vessel nozzles or pipeline flanges. Re-using historical data via EKM shaves time and uncertainty from the simulation process.

**You can reap the benefits from ANSYS EKM across your entire organization — from front-line engineers to top-line decision makers.**

#### **Existing Systems**

EKM is a complementary solution to existing systems (PDM/PLM). Integration to commercial PDM systems is available.

#### **Analysts and Methods Developers**

ANSYS EKM is simulation knowledge management and control made simple. Its hallmarks are flexibility and ease of setup and use. EKM speaks the language of CAE, and engineers find it non-disruptive, intuitive and productivity enhancing.

The open EKM architecture allows you to incorporate simulation tools you use every day, whether they come from ANSYS or another software vendor. With EKM, you leverage unmatched meta-data extraction to search and re-use the built-in value of simulation activity. Our tool provides infrastructure for easy capture/best practice deployment, customization, multi-discipline team collaboration, CAE project management, visualization and decision support. Key features include web-hosted UI/templates, custom data models and unique metadata-type creation.

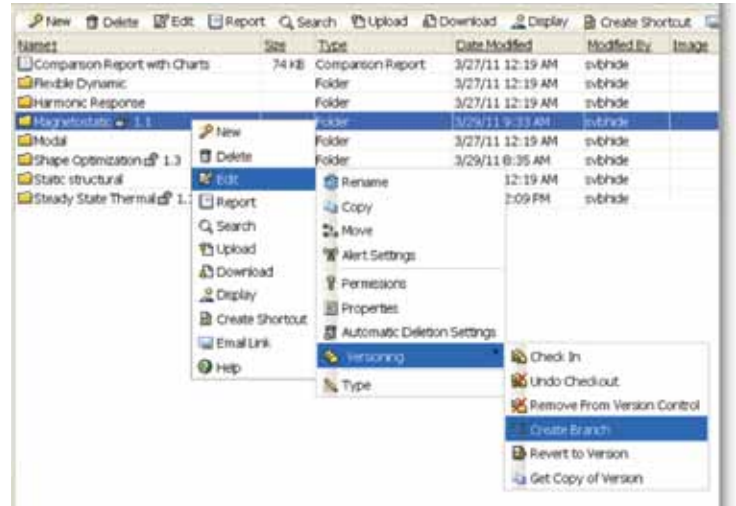
#### **IT Team**

EKM has a very low footprint in terms of complexity, yet it provides full control of administration requirements, such as role, access control, authentication and integration to external systems (LDAP, DBs, ERP/PDM). We've addressed key IT cost concerns with scalable configurations, licensing models, and a simple extension to your organization's current simulation environment. With EKM as part of the toolkit, IT departments can optimize the impact that large amounts of simulation data have on infrastructure and distributed team needs.

ANSYS EKM offers advanced search and purging, data security and archival based on corporate governance models, and full traceability and transaction history on all simulation IP. The software can help your IT team bring order to CAE data, since ease of use has a huge impact on acceptance by the user community.

#### **Management**

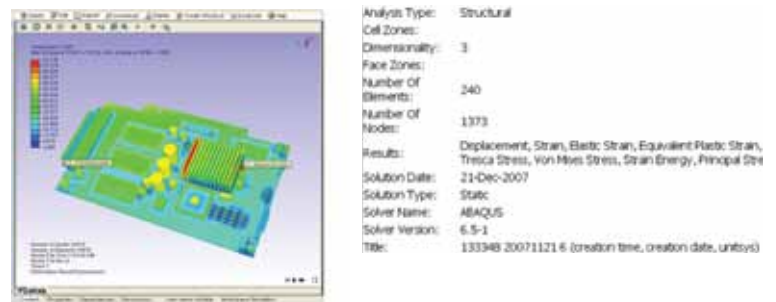
EKM fosters productivity by providing the right information to the right user at the right time, regardless of location — a catalyst for faster turnaround. It serves as a platform for democratization of simulation, specifically in deploying tools beyond dedicated analysts to more rank-and-file engineers and designers.



You can compare two simulations without having to open all files in the pre-/post-processor.

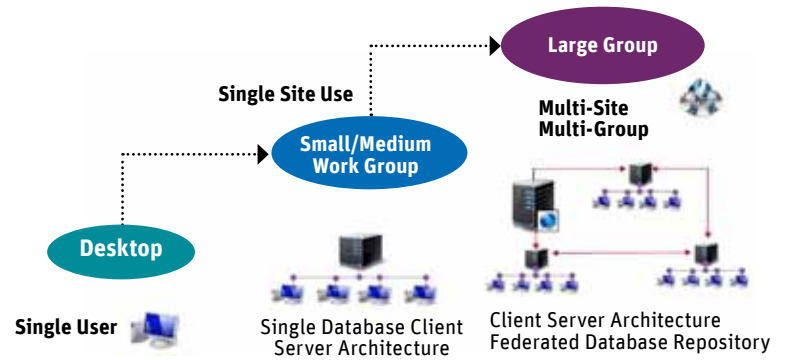
ANSYS EKM is context sensitive for various operations.

Data management via ANSYS EKM ensures repeatability, and you can incrementally create an intuitive network without making sweeping changes to your current practices. Your management team can make informed decisions based on a simulation project's traceability and history, thus assuring data quality, integrity and re-use as well as providing detailed insight into simulations and status.



Results view with extracted details

File Management	Integration & Automation	Smart Search	Data Mining	Lifecycle History	Accessibility
Access Management	Pedigree/Dependencies	Tags	Dashboards	Relationships	Security



**Open and Scalable**

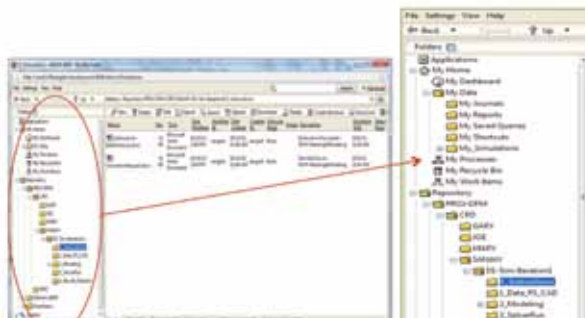
A scalable solution, EKM supports single users and shared configurations with a flexible and simple licensing model. It allows for connections to local or remote repositories, encouraging CAE collaboration across dispersed teams.

ANSYS EKM’s embedded product features can easily improve your day-to-day CAE activities.



**Integration with the ANSYS Suite**

You can open and save ANSYS Workbench™ projects directly in EKM, which facilitates updating the local copy and versioning on current projects. Our technology enables multiple users to leverage the work that colleagues perform as well. The tool extracts project-level meta-data to automatically generate an extensive Workbench project report that summarizes component systems and all related aspects. You can use data to display, identify, search and re-use archived Workbench projects.



**Intuitive User Experience**

With an easy-to-use web interface, EKM allows CAE users to easily accommodate current practices. The technology’s functionality enables creating custom project and work breakdown structures, adding files from any local repository, and incorporating an external data storage device. The data-access-on-demand model efficiently uses available bandwidth between users and repository locations.

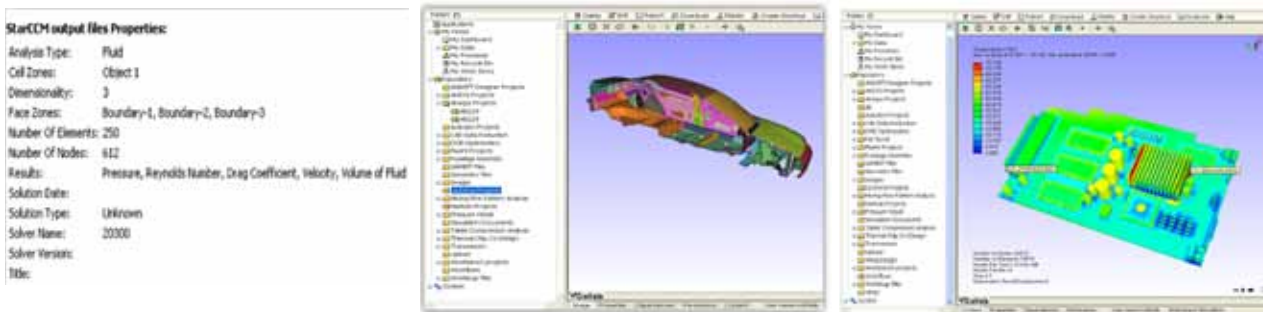
## Search and Re-Use

EKM supports simple and advanced keyword, meta-data, property and report-based search, with filtering based on object type, subprojects, etc. The tool automatically extracts simulation properties and other meta-data from added files. Users can easily customize external format meta-data extraction.



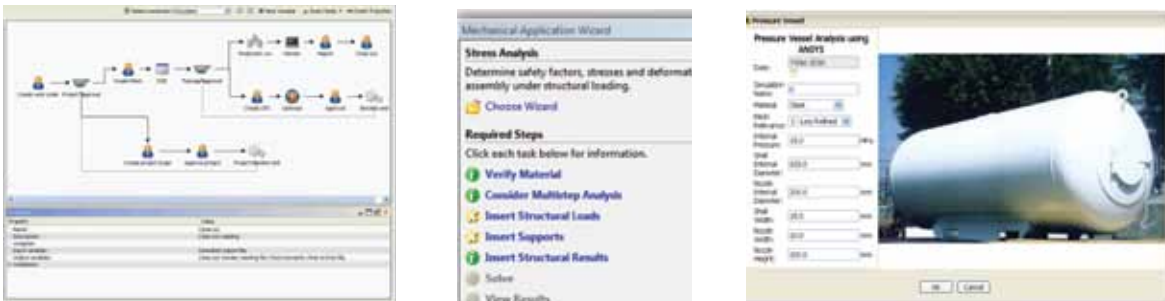
## Visualization

EKM enables common visualization for all data types (CAD, CAE, etc.) via the VCollab® plug-in.



## Process and Workflow Management

You can create simulation workflows to manage all aspects of the simulation process. EKM's easy and intuitive unified graphical interface enables creating, editing and publishing simulation workflows and lifecycle definitions. Its open architecture and XML format make it easy to perform any number of functions: journaling, recording, creating decision nodes, branching, iterating, email notification, tracking progress, sign-offs and batch job submission capabilities.



## Reporting

EKM provides a host of reporting capabilities to allow performance metrics vs. targets comparisons, project status, comparison of simulation property similarities, differences between multiple files, and results summaries.



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ANSYS is dedicated exclusively to developing engineering simulation software that fosters rapid and innovative product design. Our technology enables you to predict with confidence that your product will thrive in the real world. For more than 40 years, customers in the most demanding markets have trusted our solutions to help ensure the integrity of their products and drive business success through innovation.

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