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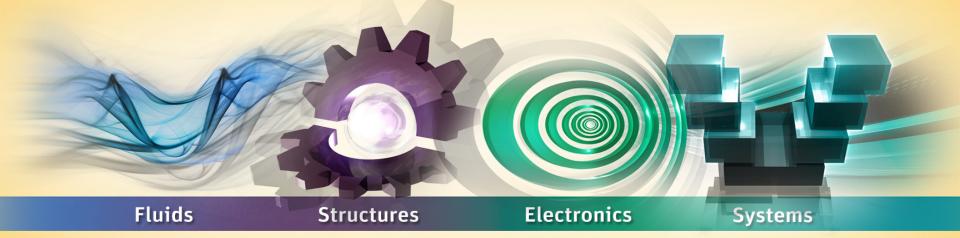
e-works数字化企业网

武汉制信科技有限公司

Realize Your Product Promise®



ANSYS EKM 研发仿真数据管理与流程管理方案



侯明刚 Shihu.ma@ansys.com ANSYS China

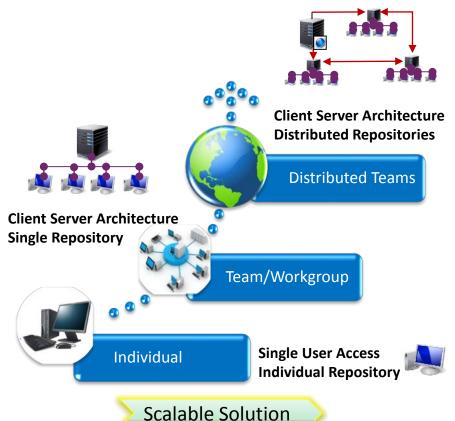
ANSYS EKM的着眼点——仿真面临的问题

- 庞大的仿真数据管理问题
 - 数据孤岛问题、快速检索、数据复用...
- 繁琐的仿真流程和膨胀的计算资源需求
 - 同类型的问题,同样的仿真过程,同样的耗时
 - 仿真需要越来越多的计算资源
- 复杂的仿真流程管理
 - 仿真通常需要多部门协作



ANSYS EKM:专业的仿真数据与流程管理方案

- •**功能**
 - Ease of Use
 - Data Search and Retrieval
 - Results Visualization
 - Design Comparisons
 - Multi-Location
 Collaboration
 - Process Control
 - Job Submission
 - Workbench Integration



Strategic Intent:

• Get the right resources* to the right people at the right time

* Resources = data, information, compute power



ANSYS EKM: 企业级仿真端口



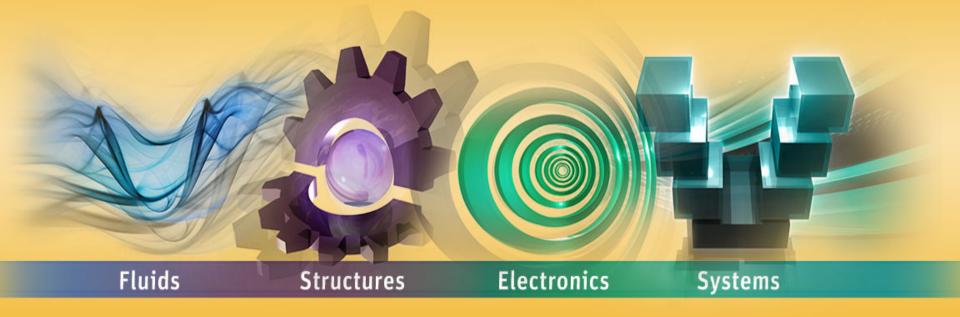
- Web portal to the simulation data center
- Data management
- Job management
- Interactive use



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EKM的仿真数据管理



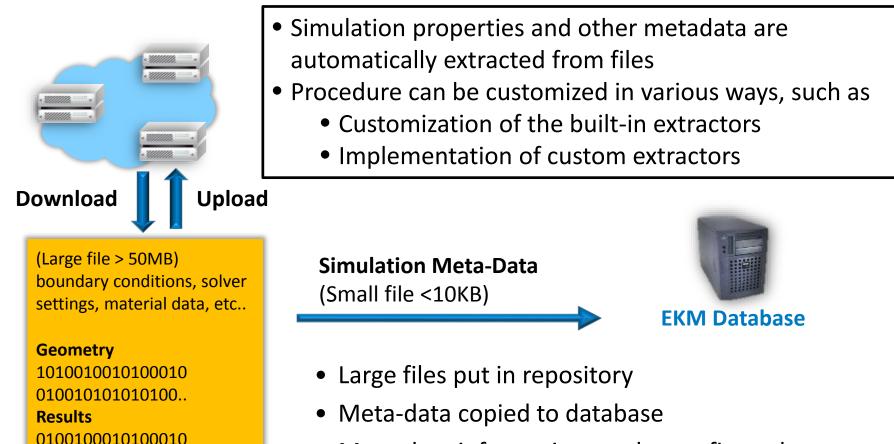


ANSYS EKM 16.0 网页界面 **NNSYS**®

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ANSYS EKM元数据(Meta-Data)抽取 **ANSYS**[®]



- Meta-data information can be configured
- User defined meta-data can be added

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User's Machine



ANSYS°

ANSYS EKM Highlights: Search & Reuse

Advanced Search					0 8					
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ANSYS EKM 数据检索与定位

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3		Multiphase Model: Off Radiation Model: Off Regions: pressure_outlet.6; default-interior:008; bottom; fluid:011; inlet; wall; top Solver: Segregated Space: 2D Time: Stady State
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Simulation Details Report	Details	Revision History Discussions	

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知识利用、仿真流程压缩 与仿真资源管理

Systems

Fluids

Structures

Electronics



ANSYS EKM:仿真知识再利用

Custom application or Template based deployment

🔥 Anti Icing Analysis using ANSYS EKM							
Anti Icing Analysis Using ANSYS CFD Software							
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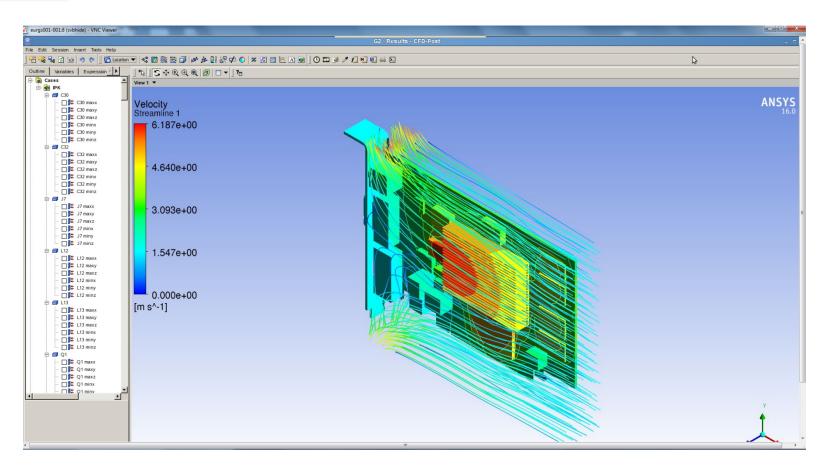
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Simple Flat Based Workflow Ca	<u> </u>
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	Axial Velocity: 0.1
	Swirl Velocity: 0.1
	Lower Impeller
	Radial Velocity: 0.1
	Axial Velocity: 0.1
	Swirl Velocity: 0.1
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EKM:远程任务管理

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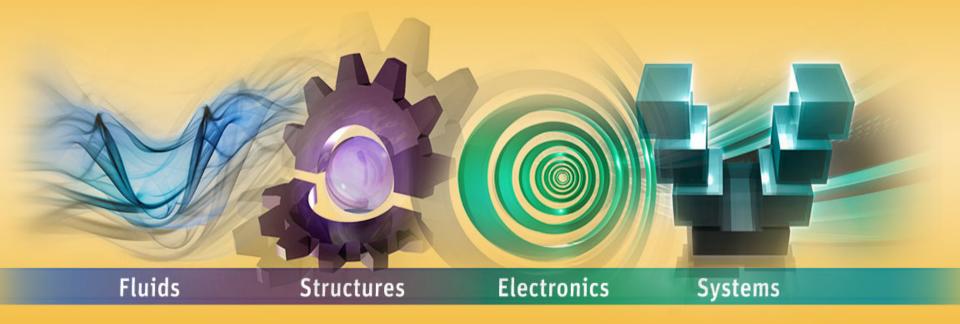


• Access High Performance Compute resources from a lightweight client

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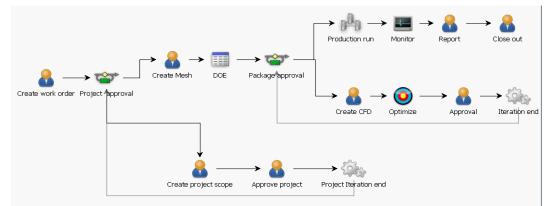






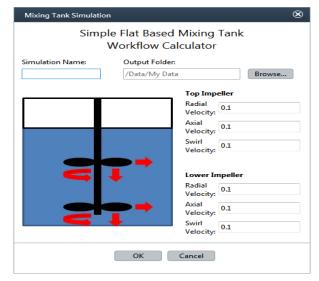
ANSYS EKM:协作

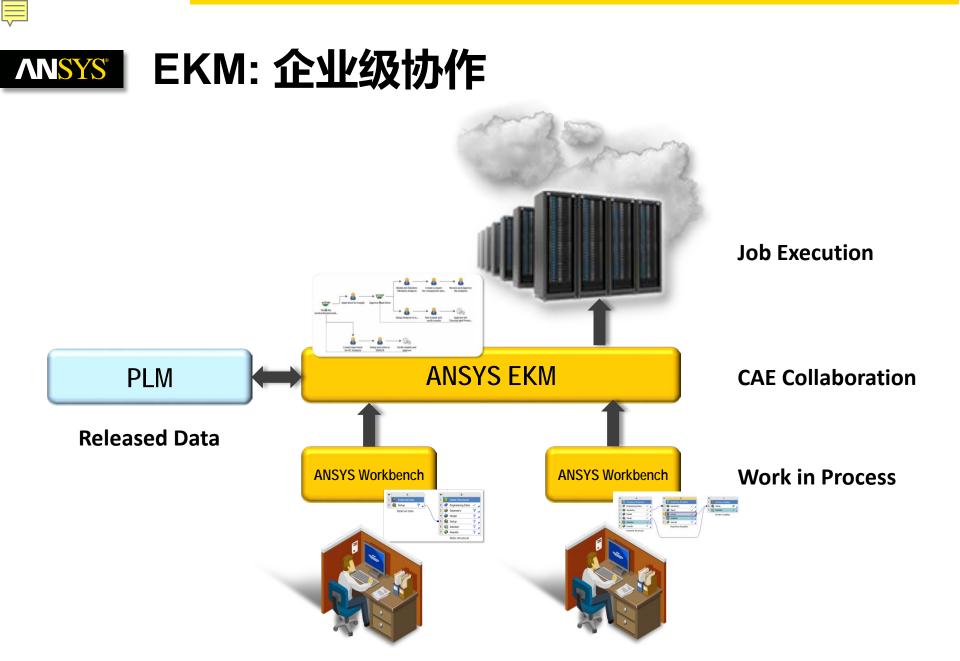
Multi-user, workflow based collaboration



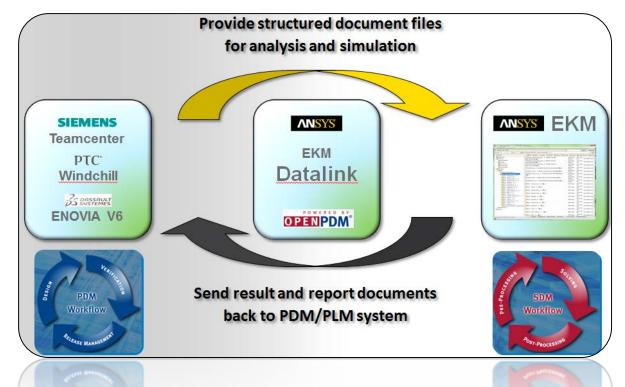
Custom application or Template based deployment

🔥 Anti Icing Analysis using	ANSYS EKM						
	nti Icing Analysis ANSYS CFD Software						
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Initial load

- From PLM or EKM, locate CAD geometry in PLM and transfer to EKM
- Utilize geometry in meshing for simulation

nd resul **Obdate** documents back to PDM/PLM system

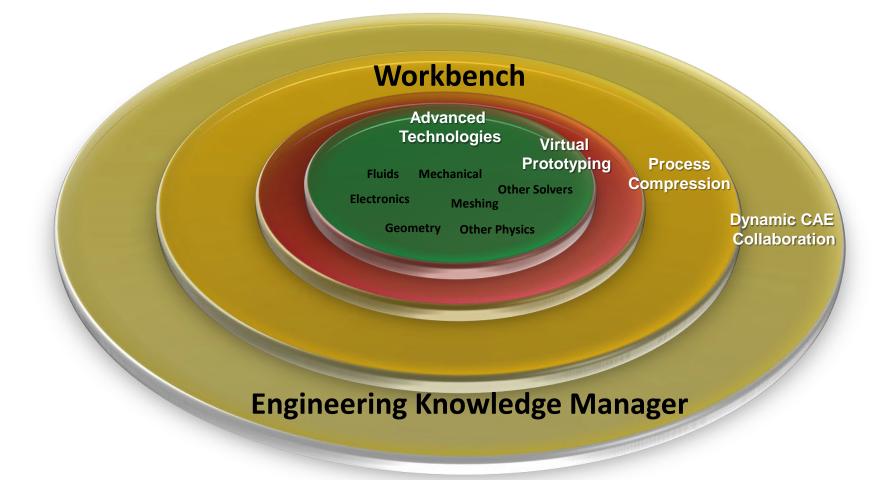
 From EKM, check for geometry changes in PLM and transfer to EKM

Result transmission

 From EKM, transfer results data (e.g. simulation results reports) to PLM



Enables Virtual Design and Verification



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Fluid Dynamics

Structural Mechanics

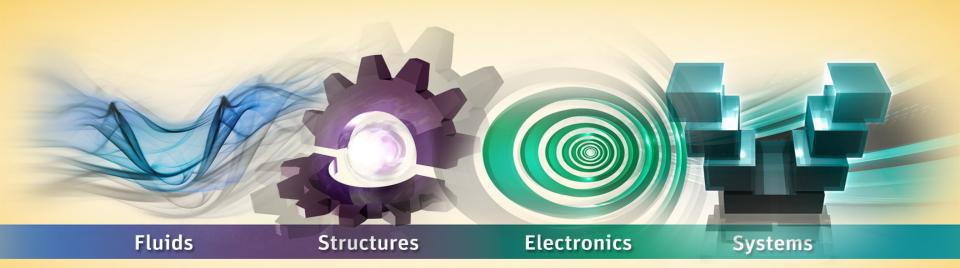
Electromagnetics

Systems and Multiphysics

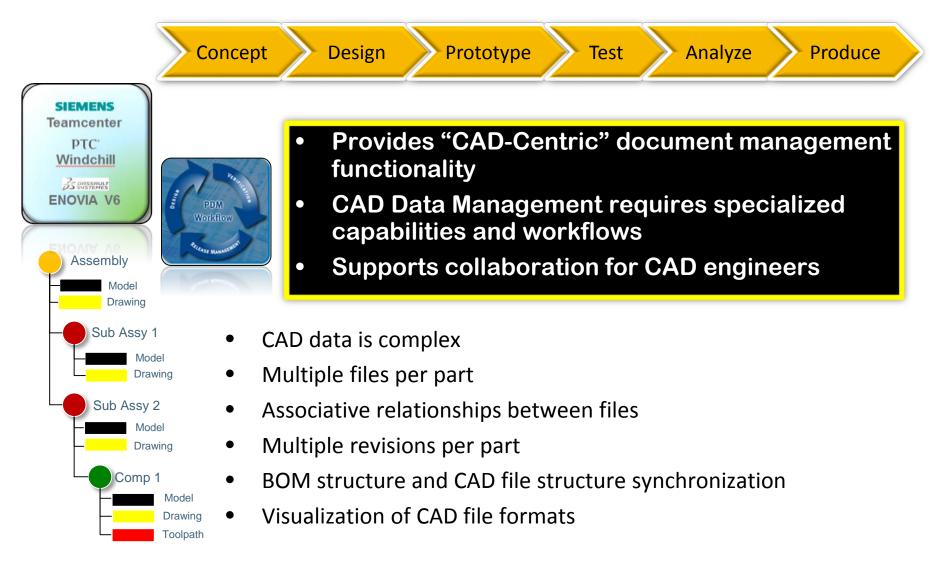




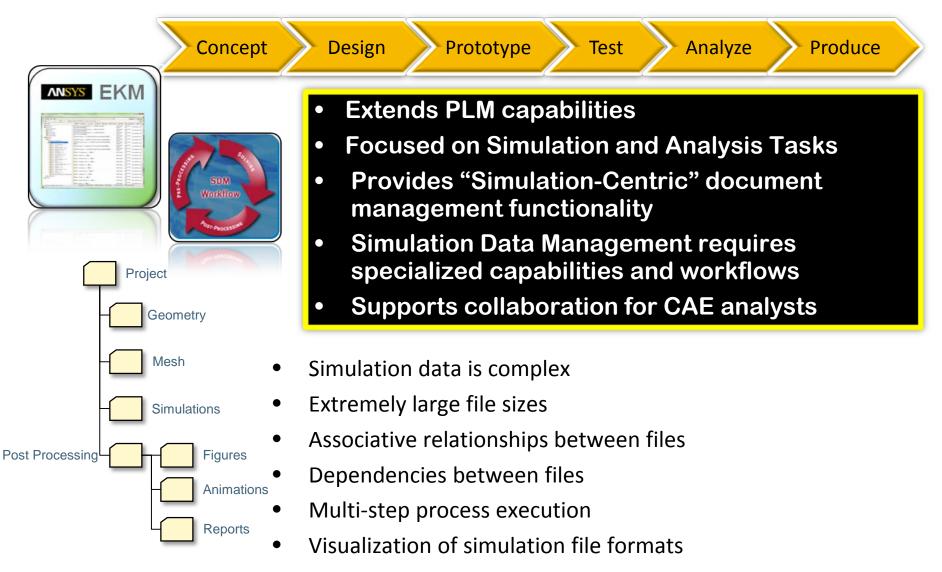




ANSYS PLM: Optimized to Manage CAD Data



ANSYS EKM: Optimized to Manage Simulation Data





ANSYS Our Strategy

Virtual Design and Verification

Fluids Dynamics

Structural Mechanics

Explicit Dynamics

Low-Frequency Electromagnetics

High-Frequency Electromagnetics

Thermal Mechanics

Acoustics

Advanced Technologies **Complete Systems**

Simulated Environments

Multiphysics

Virtual Prototyping Dynamic CAE Collaboration

Process Compression

Democratize

Simulation

Process Automation

Enable Best Practices

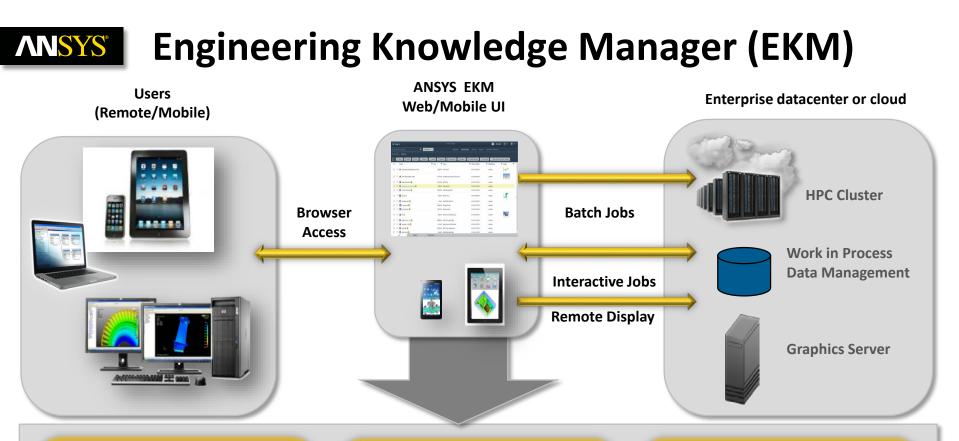
Focus on Engineering

Span Organizational and Geographic Silos

Share Engineering Insights

Better Decisions Faster

. 1, 2015



Mobility & Remote Access

- Web & Mobile UI
- Interactive Remote Display with 3D Graphics
- Detach/Re-attach

IP Protection

- Knowledge Management
- Best Practices
- Search & Retrieve
- Light Weight Visualization
- Security & Access Controls

Remote Job Management

- Job Submission Templates
- Remote Monitoring
- Access to Interactive Controls
- Support for Leading Schedulers and Resource Managers

Open Platform: Supports ANSYS and 3rd Party Applications