



Introducing...

VCollab 3D Visual Collaboration Solutions for CAE

VCollab software, powered by the CAX file format, is the easiest and most comprehensive visualization and data reduction resource available to improve engineering collaboration.

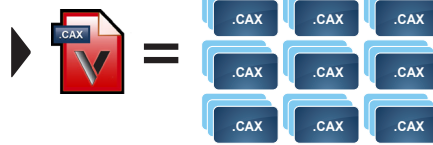
Traditional Collaboration

- **Massive CAE simulation and results files** are difficult to share, move, archive.
- **Multiple CAE data formats** require multiple codes to access simulations and results.
- **Complexity** and range of tools challenge engineering teams and decision makers to collaboratively review simulations and results.



VCollab Collaboration

- VCollab extracts and **reduces CAE simulation and results files** up to **99%**.
- **One Portable CAX file** format stores all CAE simulations and results.
- **Teams easily share**, review, and interact with 3D models and results across multiple sites, multiple enterprises, with one common VCollab Viewer.



CAX to Reduce Simulation and Results Files by 99%

The VCollab solution begins with CAX, the first common, portable file format for storing and sharing CAE data. Using a refined data-extraction and data-reduction process, VCollab creates CAX files that are up to 99% smaller than native CAE files.

One Format Unifies CAE Data

VCollab and the CAX file format is the single solution that unifies the complex array of simulation codes and formats currently in use today. One VCollab viewer and one common file format let users access a myriad of different CAE simulations and results as well as share, store, and collaboratively review extremely large CAE files.

VCollab + CAX Benefits

Business 2 Business Collaboration

- OEMs, Suppliers, and Service Providers use one standard, portable CAX file format for easy data transfer, access, and archiving.
- Decision makers review comprehensive datasets with one simple-to-use interface.
- VCollab enables superior visual communication to help CAE teams solve design & simulation problems faster.

Global Engineering Collaboration

- Technical and non-technical teams easily exchange CAX files and collaboratively review comprehensive product design and simulation data.
- CAX files support multiple analysis programs and enable CAE document and data collaboration.
- Data reviews improve using 3D CAE storyboards and live graphical manipulation.

Efficiency

- Reduces storage, transfer time, and bandwidth requirements.
- Reduces wait times to access and review massive results files from remote servers.
- Enables easy collaboration between analysts and designers.
- Reduces labor-intensive CAE reporting processes.
- Maximizes interrogation of all CAE, CAD, and CAM data.
- Archives 3D dynamic reports with design, simulation, and results data.
- Supports SDM, SLM, PDM, PLM, MDO system integration.
- Reduces need for code-specific viewers.
- Leverages existing software and hardware investments.
- Leverages expertise of all engineering teams.

CAE Software	CAE Results File Size (MB)	CAX File Size (MB)	File Size Reduction	Time for Translation
ABAQUS	1436	163	88%	~ 7 Mins
MSC NASTRAN	289	46.4	84%	<1 Min
MSC MARC	243	23.9	90%	>1 Min
ANSYS	14000	92	99%	~ 35 Mins
LS DYNA	363	145	60%	<1.5 Min
FLUENT	347	13.1	96%	< 1 Min

CAX File Size and Translation Time Examples

CAE Software	CAE Results File Size (MB)	CAX File Size (MB)	File Size Reduction	Time for Translation
ANSYS (10 results)	1953	20.1	98.7%	~ 3 Min
ANSYS (1 result)	1953	2.31	99.9%	~ 2 Sec

CAX File Size and Translation Time Examples with Extended Filtering

Traditional Archive



CAX Archive



CAX Archive, VCollab Access

CAX files are ideal for storing comprehensive engineering reports with design, simulation, and results data. Minimal storage requirements are needed to archive reports. Viewing reports in 3D and accessing critical data is simple using a VCollab Viewer.

VCollab Software Integration Partners

ANSYS EKM	Added to the ANSYS EKM solution for simulation-based process and data management challenges, VCollab facilitates automated metadata extraction for non ANSYS simulations, CAE results compression, and advanced CAE results collaboration and viewing for a wide range of simulations.
CADFEM C.A.V.E.	CADFEM's Compression And Visualization Engine integrates VCollab into an ANSYS Workbench application. C.A.V.E. gives customers a seamless workflow from solving to the output of significantly compressed and portable result files.
Phoenix Integration	Integrated into the PHX AnalysisLibrary, VCollab facilitates automated metadata extraction, CAE results compression and advanced CAE results collaboration and viewing for a wide range of simulations.
JT Open	Read and write JT files from VCollab and enjoy interoperability between VCollab solutions and JT format.
TotalCAEPortal	TotalCAE adds VCollab to its portal services to bring smaller CAE file sizes and increased file portability to end users.

VCollab supports commonly used codes including ABAQUS, NASTRAN, MSC, MARC, ANSYS, LSDYNA, FLUENT, STARCCM+, ENSIGHT, CGNS, FESAFE and others.

Key Features

- CAE Data Reduction
- Spectacular 3D high-performance viewing
- CAE storyboard creation
- Lightweight post-processing
- Ready CAX integration with WEB, Microsoft Office, SharePoint, and document management systems
- 3D CAE data merging and editing
- Metadata capture
- Automated CAE reporting features
- PDM, PLM, SDM, SLM, MDO Integration



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