Introducing...
VCollab 3D Visual Collaboration Solutions for CAE for Smart Processing of Simulation Results

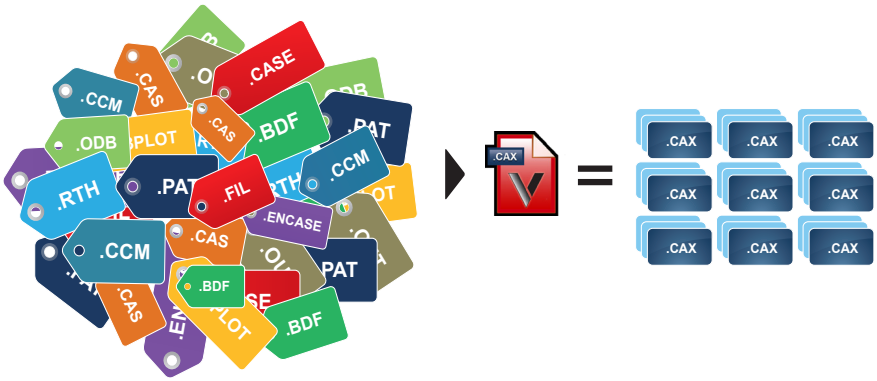
VCollab software, powered by the CAX file format, is the easiest and most comprehensive visualization and data reduction resource available to improve CAE collaboration.

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 models and results.

VCollaboration

- VCollab extracts and **reduces** CAE **simulation and results files** up to **99%**.
- **One Portable CAX file** format stores all CAE ***models*** and results.
- **Teams easily share**, review, and interact with 3D simulation models and results across multiple sites, multiple enterprises, with one common VCollab format and 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 portable CAX file format for easy CAE data transfer, access, sharing 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 review comprehensive product design and simulation data.
- CAX files support multiple analysis programs and enable CAE document and data collaboration.
- Design and Analysis reviews improve with 3D CAX files and allows for validation of Simulation data leading to faster decision making.

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.
- Improes the productivity of CAE analysts by reducing the labor-intensive CAE results handling and reporting processes.
- Archives 3D dynamic reports with design and simulation data for archival. & reviews
- Supports SDM, SLM, PDM, PLM, MDO system integration.
- Reduces need for code-specific viewers.
- Leverages existing software and hardware investments and maximizes utilization of the CAE 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

Key Features

- Smart processing of CAE results to eliminate manual probing for hot spots, typing the floating values to create CAE annotations e.t.c
- Automated CAE reporting features
- Reduce the CAE results files up to 99% and eliminate moving and storing large results files
- Easily compare simulation models, results and design changes during the CAE iterations
- Spectacular 3D high-performance viewing
- CAE storyboard creation
- Lightweight post-processing
- Ready CAX integration with WEB, Microsoft Office, SharePoint, and document management systems
- Multi disciplinary CAX visualization
- Meta data capture
- Python Scripting for automation
- PDM, PLM, SDM, SLM, MDO Integration
- VR integration

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.
SimManager	Integrated into the SimManager , VCollab facilitates automated metadata extraction, CAE results compression and advanced CAE results collaboration and WEB Based viewing for a wide range of simulations.
RedCedar HEEDS MDO	Users of HEEDS MDO software can easily visualize the design changes and the effect of various design variables on system performance using VCollab and without having to re-open the CAE or CAD tools.
Phoenix Integration Model Center	VCollab provides common meta data extractor, CAE reporter and WEB based interactive 3D Visualization of the Simulation Data to the Phoenix Integration Model Center.

VCollab supports commonly used codes including ABAQUS, MSC NASTRAN, MSC MARC, ANSYS, LSDYNA, FLUENT, STARCCM+, fe-safe , nCode and others.

Visual Collaboration Technologies Inc.
100 West Big Beaver, #200
Troy, MI 48084
Tel 248-835-6880
Fax 248-498-6003

Visit **www.vcollab.com**