**KOMVOS Brief Overview:**

**KOMVOS – SDM Console Explained**

KOMVOS – SDM Console is a Simulation Data Management platform that helps engineers interact, browse, visualize, and handle all data related to CAE analysis, from PDM extractions to simulation runs, key results, and reports.

**Data management takes a front place in simulation**

* engineers consume precious time preparing, communicating, handling, and updating model data and information. This is the result of the continuous upsurge in simulation capabilities and modelling detail that has increased CAE processes’ data intensiveness.
* Different subsystems and simulation models are simultaneously prepared for several analyses’ disciplines, for different product models and configurations.
* Model parts are continuously corrected and optimized during the successive production phases. Meanwhile, required information resides in numerous different data systems.

**The place where data meet with their stakeholders in simulation**

* KOMVOS has been developed after carefully mapping the data processes of customers, to become the central tool for seamless data flow.
* KOMVOS hosts all necessary data processes plugins and serves as a powerful front end for data search, navigation, and information on meta data. It deploys a friendly user interface that integrates a powerful 3D-viewer, and single click actions execution, such as running a batch mesh.

**How KOMVOS facilitates a simulation analysis process**

* In the CAE world, to create a subsystem we need all the parts of the system placed together. Generating this CAE structure is a demanding and error prone task for which the CAD data are properly gathered, placed, and the proper materials are defined, along with the proper connectivity information.
* Using KOMVOS, you can easily create the CAE structure from a CAD structure having on the one side the full structure and on the other side the view of the model.
* To further facilitate data structuring, KOMVOS offers the capability to identify the common parts in the different variants of the model. This allows you to work on these parts only once.
* To proper assign the correct materials and avoid mistakes, KOMVOS also supports the visual inspection of the material used in each part.
* KOMVOS also offers a visual inspection of the status of the model readiness. For example, parts that do not have the crash representation can be highlighted in a different colour.
* The created files are then sent to the external suppliers for further treatment. Thus, the correct packages have to be created (files, scripts, parameters), and the required tasks for the given data described while avoiding sending double work.
* We then have to check the deliverables and place the validated parts in the proper place in the SDM System and communicate to all departments that their parts are now available.
* KOMVOS offers a build in mechanics to send emails, share information, images, results, reports, and progress updates. This communication can be set up following your communication protocols.
* As these steps have to be performed also by users who are not experts in CAE modelling, KOMVOS, has been developed in such a way that allows even novice users to handle these complex procedures being also flexible and adaptable.

**The Junction point for simulation data management**

* KOMVOS runs as the central point of all necessary data and Stakeholders to complete all needed actions for the interactive browsing, visualization, handling and communicating all CAE data. Thus from the Greek word for junction, KOMVOS takes its name.

**Benefits**

* Powerful model browsing and visualization
* Direct communication with any data management back-end
* Fully customizable
* Quick reports and statistics
* Ability to view simulation results
* No expertise needed

**Q&A on KOMVOS:**

1. **Why was KOMVOS developed?**

KOMVOS combines CAE Process knowledge, interfaces to the OEM-Source-Systems, backed up by a database and communicated through a User Interface, which incorporates a twist of project management qualities to it that is vital in supervising the model build up process.

1. **Who should use KOMVOS?**

KOMVOS should be used in teams and organizations in need of:

* interaction with an SDM system, for the management of simulation data, and/or
* workflow standardization and automation, and
* data traceability, i.e. the ability to track data through different states of their processing.

The function of KOMVOS spans beyond data browsing to data processing as well. Through this platform it is possible to initiate data processing tasks on-line, by integrating existing workflows with custom action calls, or export data packages for off-line processing. This particular capability makes it ideal for the preparation and delivery of data packages to external services suppliers as well.

1. **Is KOMVOS scalable?**

KOMVOS offers a scalable solution ranging from an individual engineer to Enterprise level. Additionally, it covers a wide range of CAE data management options from the smaller-scale file based ANSA DM to corporate solutions, such as SPDRM or any other 3rd party SDM system.

1. **Can I extract my data from KOMVOS for further use or data exchange with other interested parties?**

With use of the “Download > Pack and Go’ action, data can be extracted to a designated location in the file-system. A zipped DM containing the subsystem and its contents (parts with their representations, auxiliary files and meta-data) is generated. In a similar way, after being processed by another party (e.g. external suppliers), the updated data can be imported and retrieved inside KOMVOS.

1. **Do I need to have a specific SDM system already deployed?**

KOMVOS does not imperatively require the prior existence of an SDM system, since all actions can be evenly performed locally. Its major benefit though, is the direct communication with an already deployed SDM system.

1. **Does KOMVOS render ANSA Data Management obsolete?**

No. KOMVOS essentially extends the data management capabilities offered by ANSA.

1. **What privileges do I need to have to run KOMVOS?**

Simple user privileges are only required in order to run the software. If connected to an SDM System, KOMVOS affiliates the user rights of the SDM System

**The innovative SDM platform:**

**Concept:**

* Teams Building subsystems and Simulation Models
* Different Departments
* Different Car Models and Configurations
* Different Production Phases
* Different Data Systems
* Non Expert ANSA Users

**SDM-console target users:**

* Complex data-Systems
* Complex ANSA tasks
* Non expert users

**The SDM-console:**

Innovative SDM platform

* Integrate in all CAE environments
* Initiate processing tasks on-line
* Off-line processing

Powerful Frontend

* Data search
* Data navigation
* Meta Data

User friendly interface with embedded viewer visualization and handling of all CAE data.

Create Statistics

Simple action triggering

**Highlights:**

**Simple CAE Structure creation:**

* Import and View CAD structure
* Correspond CAD parts to CAE Structure
* Check CAE structure

**Avoid Double work:**

* Identify carry over parts

**Drives Model Checking:**

* Identify differences between 2 subsystems

**Drives Model Checking:**

* Identify missing representation->Monitoring the process

**Drives Model Checking:**

* Identify wrong Material assignment

**Quick Reports:**

* Reports on the fly during pre-processing

**Sharing information:**

* Send Email

**Checking Results:**

* Access to the data-system holding the results

**Conclusions:**

* No expertise needed
* Powerful model browsing and visualization
* Direct communication with any Data-system
* Fully customizable
* Hides complexity
* Create statistics and quick report
* View simulation results