

# unique solution for CAE workflow management

You have a CAE workflow...

...but have you considered...

How efficient is it?

Are you certain that the right data...

go to the right person...

for use with the right tool...

at the right time?

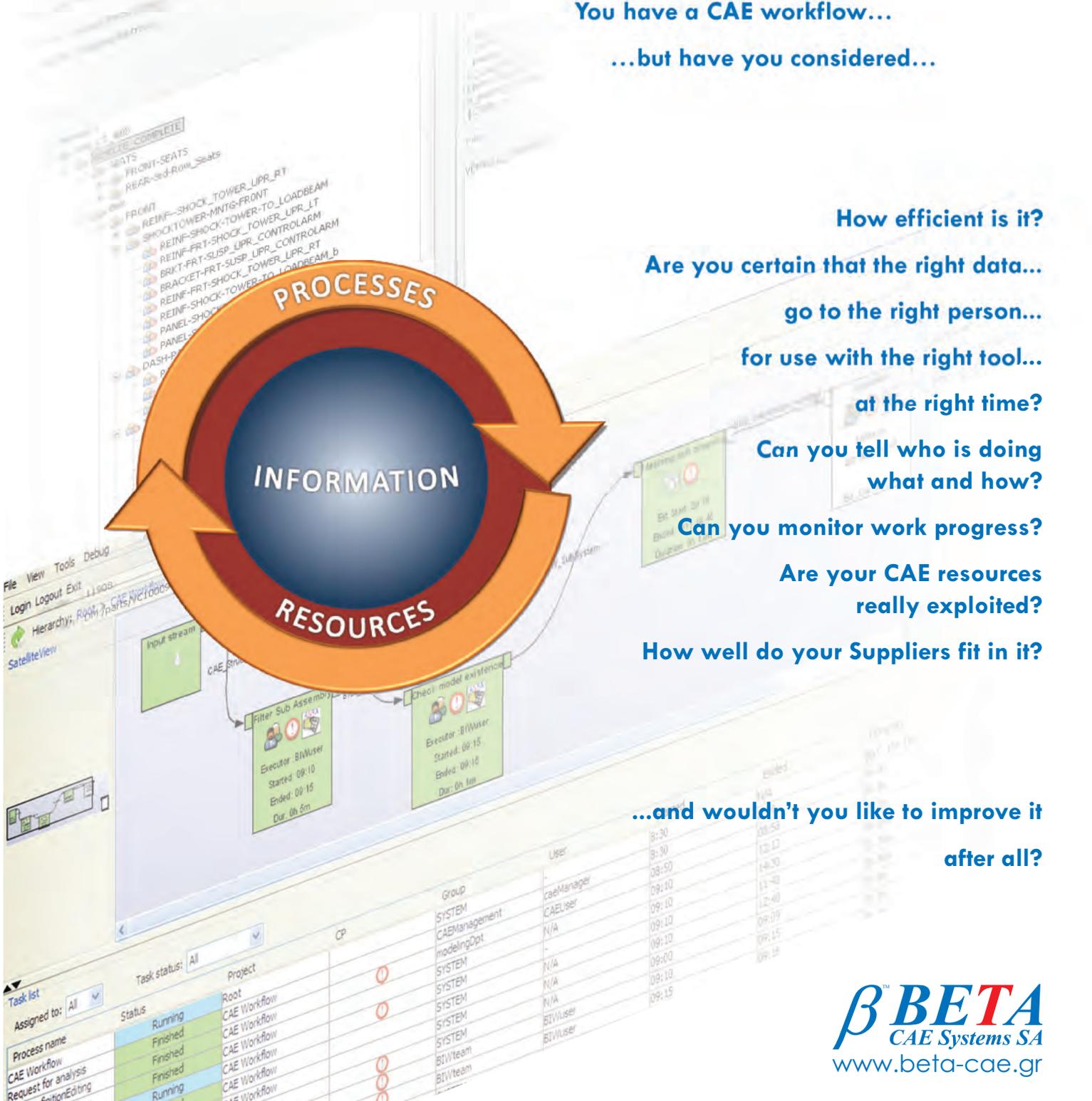
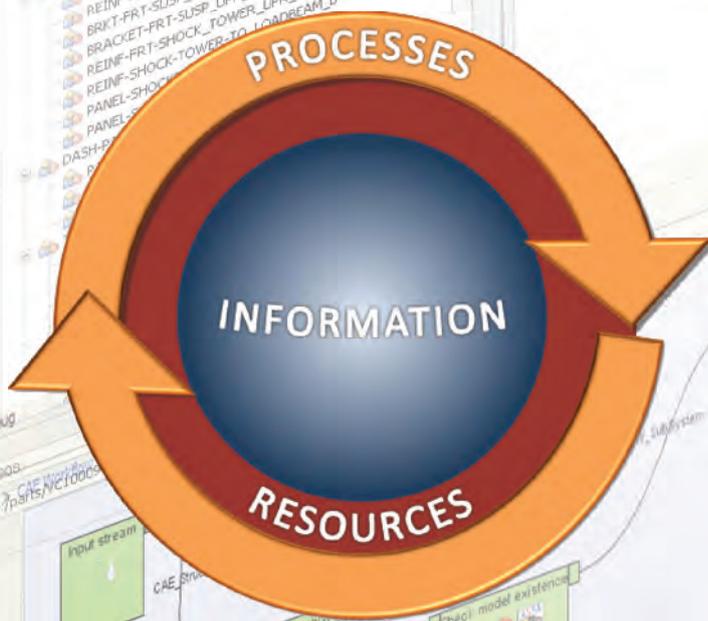
Can you tell who is doing  
what and how?

Can you monitor work progress?

Are your CAE resources  
really exploited?

How well do your Suppliers fit in it?

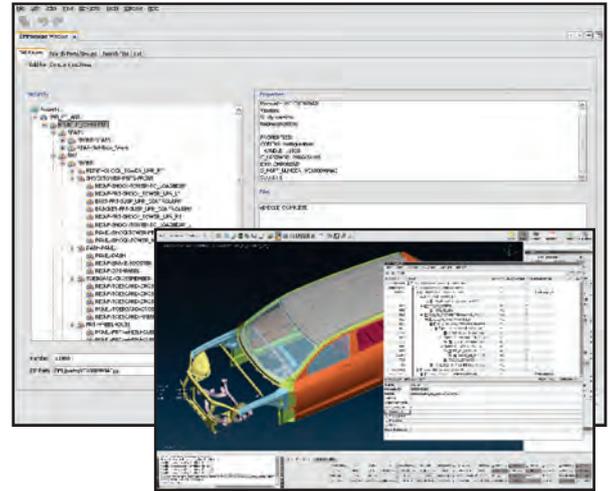
...and wouldn't you like to improve it  
after all?



Addressing the problem of contemporary CAE community to integrate data, processes and resources, BETA CAE Systems S.A. brings forth a new solution for driving high quality and efficient virtual product development procedures. This new software tool for Simulation, Process, Data & Resources Management (SPDRM) provides a simple and intuitive way to capture, deploy, manage and improve CAE process workflows by integrating the resources, the tools and the data associated with these. Reflecting a deep understanding of the demands of simulation and its role in the enterprise, it couples with the enterprise PDM system and integrates CAE into higher level business processes by delivering CAE tasks and associated data to analysts, engineers, designers, suppliers and managers.

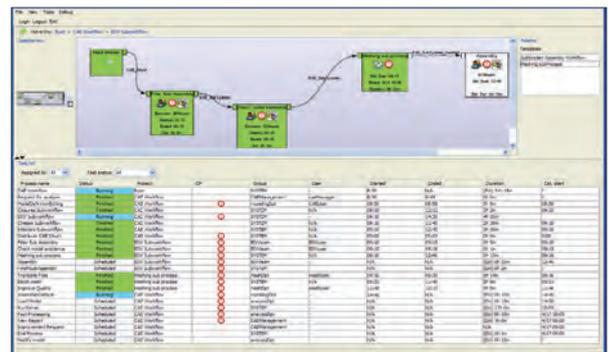
## Data and workflow management

Using SPDRM's "process editor" the user can define simple actions, organize them into sub-processes, define their dependencies and associate these with the existing resources (human or other). SPDRM tool delegates the process actions to the resources based on quantifiable criteria such as availability, efficiency, history, current workload or other rules & metrics. SPDRM automatically informs workflow actors about their assignments, communicates the correct data among actions and monitors their progress, giving a clear visualization of the workflow status. Furthermore, ANSA and µETA have direct access to the SPDRM data repository enabling, among others, secure authentication, faster response to complex queries and privilege-based access to a wider spectrum of CAE data.



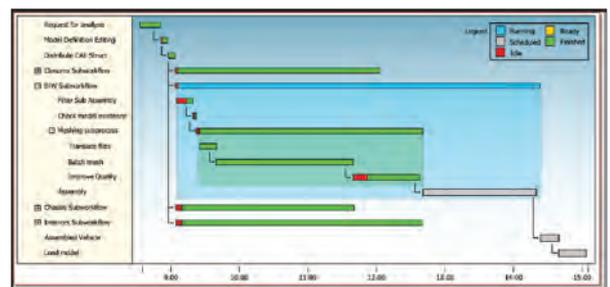
## Scalability in workflow build-up

Starting from individual engineers and moving up to workgroups, departments and suppliers, all workflow actors can independently use SPDRM tool to describe just their own piece of work using their preferred software tools and data formats and then publish it for integration into a higher level process. In this way the complete workflow consists of smaller sub-processes, each built by experts and thus capturing the engineering knowledge and expertise in every particular field.



## Workflow improvement

Once the complete workflow is built, SPDRM run-time process visualization and monitoring tools provide valuable information about workflow's current state, display which actions are completed, which are currently running (and with which data, by which resource, to what extend etc) and which actions are still pending. They allow real-time intervention so that the user can alter the process at execution time in order to bypass an unforeseen stoppage or give a workaround to an action that is taking too much time to complete. Furthermore, process "profiling" tools reflect in a graphical form the interdependency of process actions against the course of time. With these tools in hand, engineers and managers can identify workflow bottlenecks, investigate parallelization of actions and also investigate ways to reduce the total duration of the workflow.



## Merits

- the overall process consistency, at all levels,
- the standardization of the procedures,
- the harmonization of operations throughout the organization but also with its suppliers,
- the referability and traceability of data and meta-data, of their modifications and variations,
- the reduction of data redundancy,
- the process progress monitoring & the effective processes quality management,
- the reliable and referable documentation,
- the productivity increase thanks to the effective resources management through job delegation to available and competent resources,
- the repeatability of processes, even when using updated or different datasets and software tools,
- the quality improvement of the deliverables,
- the increase of confidence to CAE, plus the time & cost reduction of the overall simulation process

