



This month, Vicky had a chance to learn more about the APA's only Process Structure Interaction tool, CONVERSE. She was able to discuss the interface with RADIOSS, unique applications and benefits, among others with PART Engineering's very own Sascha Pazour.

Vicky: Why or how was PART Engineering founded? What opportunities were there in the market?

Sascha: PART Engineering was founded in 1999 as a spin-off of the world renowned Institute of Plastics Processing at Aachen Technical University (RWTH), Germany. Starting as a consultancy firm for product development of plastics and rubber parts, PART focused on providing CAE services in the scope of FEA. The Converse and S-Life software products evolved from the company's need to provide efficient and high-quality CAE tools and services. Today, PART Engineering's portfolio includes contract CAE simulation and staffing services, as well as CAE software sales. PART Engineering continues to maintain a strong relationship with leading research institutes to ensure that the most cutting-edge technology is considered in its services and software products.

V: What would be the benefits of using CONVERSE for process structure interaction simulation?

S: CONVERSE offers engineers an easy-to-use tool that bridges the gap between injection molding simulation and mechanical simulation by importing the results from a third-party injection molding software, processing them, and then exporting the results into a third-party mechanical FEM software. Overall, this improves the quality of the subsequent simulation results.

V: What are some unique applications of CONVERSE that could be used for specialized projects?

S: All fiber reinforced and most of unreinforced plastic parts need such data Converse provides. In the past this solution was just not provided and FEA specialists tried to predict the behavior without such information. Now they have more possibilities.

V: How does CONVERSE's interface with RADIOSS predict part stiffness and failure more accurately than traditional FEA software?

S: Using traditional isotropic material behavior instead of orthotropic material behavior would cause a result that shows the wrong part behavior. The anisotropic material behavior of short fiber reinforced parts can only be considered through using such data.

V: For what applications or projects would you use CONVERSE to map shrinkage and warpage?

S: An example application might be for parts that require FEA simulations done with the exact geometry instead of the ideal CAD-geometry, such as mounted parts.

V: What are the major (essential) inputs required from the user?

S: The main input required is the injection molding results.

V: What other (optional) inputs are required from the user?

S: Users also can provide material information.

V: How much time does it take to learn and start using CONVERSE? (We will link to your collateral, recorded tutorials/webinars here & any planned upcoming events)

S: It takes some hours to learn and understand, but once the procedure is clear Converse is needed just a few minutes each project.

