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## SAF: from silos to flexibility

**Hasselt, June 28, 2022** - The global pandemic has been disruptive in many ways, one of them being the undeniable impact on companies and their pace of business. [Studies](#) have shown that COVID-19 has accelerated the digital transformation, and in the construction industry, the adoption of BIM is an important step towards said transformation. At SCIA, we believe in the success of the collaboration between all disciplines in our industry and are actively striving to make this digital transformation happen.

Architects, modellers, engineers and many more professionals who are involved in a construction project all have their own specific software to work with. At a certain point, however, data needs to be exchanged between the parties involved. In such a situation, everyone could benefit hugely from

unrestricted digital data exchange. Enter IFC. Developed by [buildingSMART](#), the Industry Foundation Classes (IFC) is a CAD data exchange file format intended to facilitate interoperability in the AEC industry.

Started back in 1994, the format evolved over time, and although IFC has done development for structural analysis, it's not widely adopted among structural engineers. With the aim to improve the workflow of structural engineers and to build the future of construction tech, we at SCIA worked on a much-needed open format with the underlying idea to be able to exchange models effectively between different software, but also make it easy for engineers to create or adjust structural analysis models. **Based on the Microsoft Excel format, SAF is a practical, easy-to-use format that can be used in daily practice by structural engineers.**

Even though SAF was brought to life quite recently, many companies are adopting it and engineers are getting used to it. For software experts, we developed an open source software development kit (SDK), which is available upon request, helping software vendors implement SAF in an easy and fast way. With the format being built on the idea that working in synergies is the way to go, it won't come as a surprise that it's an open and free solution, further developed, managed and coordinated by SCIA, based on the contribution and feedback of users.

The possibilities with [SAF](#) are truly endless. Software vendors give their customers the capability to exchanging models between different applications. Engineers can create their models outside of the analysis software, e.g. in Grasshopper, via Python script, etc., and create a SAF file to get it imported in their analysis software or they can even directly create their model in Excel in the right SAF format. A huge advantage is that structural engineers don't even have to change their workflow.

At SCIA we are also supporting the SAF file for import and export in SCIA Engineer and we are developing the link with Grasshopper, so that when a parametric design has been created in Grasshopper, for instance, the model can easily be exported in SAF and then imported again in other software. Not only will this give the structural engineer many more tools to work with, it will also save him or her a serious amount of time and will make the workflow much more efficient.

SAF is also supported by [SCIA AutoConverter](#), a software tool that

automates the conversion of a 3D structural model from any CAD software into an accurate analysis model. AutoConverter bridges the gap between engineers and modellers and goes for collaboration at its best. Effectively, it allows engineers to join the BIM process and gives the engineer full control over the process.

Big opportunities for the further development of SAF still lie ahead of us and for that we count on the contribution of the industry. After all, we're aiming for the same goal: jump on the BIM-train and head towards the digitalisation of our sector.

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## **About the Nemetschek Group**

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Publicly listed since 1999 and quoted on the MDAX and TecDAX, the company achieved revenue amounting to EUR 681.5 million and an EBITDA of EUR 222.0 million in 2021.

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