

Case Study | Daimler Buses

Wibu-Systems' CodeMeter enables a revolution in monetizing additive manufacturing

Protection and monetization of 3D-printed spare parts in the automotive industry

The Challenge

Printing objects at an acceptable level of quality and adequate cost used to be the domain of science fiction, but many technical issues have since been overcome, and 3D-printing urgently needed parts have become a viable option, just at the moment when the global supply chains are buckling under the many stresses of our times and consumers are expecting more sustainability. However, when parts are printed out of the reach of the original rights holder, solutions are required to protect the intellectual property and make the billing process secure and transparent along the entire chain.

The Solution

Many parts for Daimler and Setra Buses are now made available in digital, 3D-printable format on the OMNIplus service portal. Bus operators and service partners can buy these for printing on site. This is made possible with Wibu-Systems' CodeMeter encryption and licensing solution and specially certified printers made by Farsoon Technologies and 3D Systems. The files are sold as encrypted downloads, and the buyer receives a license to use for pre-printing and an actual printing license that allows as many copies to be printed as the buyer has paid for.

The Success

In cooperation with Wibu-Systems, Farsoon Technologies, and 3D Systems, Daimler Buses has revolutionized the spare parts business from the ground up and raised a flag for additive manufacturing in its industry. The success proves: The ability to protect and monetize intellectual property with the tried-and-tested CodeMeter technology is opening the doors for new business models based on 3D printing.



Ralf Anderhofstadt
Head of Center of Competence
Additive Manufacturing
Daimler Trucks and Buses

"The successful implementation of the revolutionary AM digital rights management system means that our partners and we have made a real mark in the digital 3D printing business. This opens up completely new vistas for our service operations and for the availability of products where they are needed at the point of sale, both commercially speaking and thinking about the good of our environment."

DAIMLER TRUCK
Daimler Buses

The Company

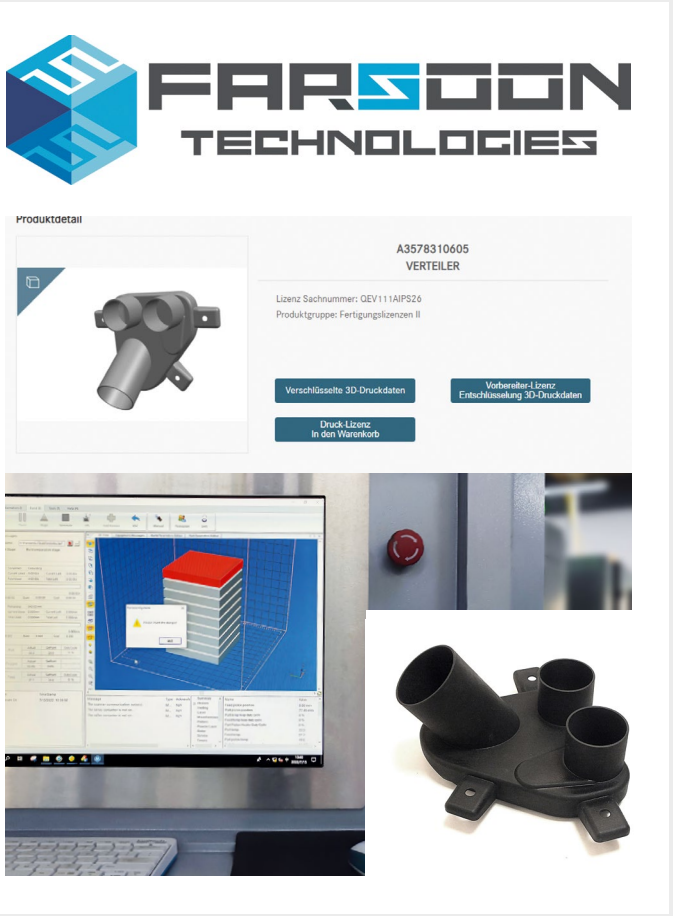
Daimler Buses is a pioneer in the entire automotive industry for industrial 3D printing. The company has been focusing on the potential of digital production technology since 2016. In the meantime, the OMNIplus service brand has designated around 40,000 bus/touring coach spare parts from the Mercedes-Benz and Setra brands as suitable for 3D printing. Initially, OMNIplus is concentrating on more than 7,000 parts that are to be digitized gradually. A kind of digital warehouse will be created in this way which is being expanded continuously. It includes both regularly required spare parts as well as rarely required parts for special customer requests. The virtual warehouse forms the basis for 3D printing license management, which shall further optimize the rapid availability of spare parts.

Wibu-Systems and Daimler Buses in cooperation with Farsoon Technologies and 3D Systems

Additive manufacturing is an amazing technology, but it is not without its challenges. With different materials requiring different printing methods and different forms of post-processing, it long seemed impossible to create printed objects at a reasonable level of quality and acceptable price. But this has since changed dramatically: Many of the technical issues were resolved in the last decades, and the wish for enterprises to be able to print the parts they need, right where and when they need them, has only grown louder as the global supply chains are coming under fire and sustainability is becoming a pressing concern. There is a wave of new local and independent service providers for 3D printing parts close to where they will be used. But when parts are printed outside of the immediate reach and control of the company that owns the rights to them, new means to protect the intellectual property in the 3D objects are needed, with tough encryptions and transparent and traceable order handling and billing through the entire process flow.

This makes Daimler Buses the first automotive enterprise to truly revolutionize its spare parts business. Many parts and components are now available in digital form that is ready for 3D printing and can be bought by bus operators and service partners anywhere for production right where they are needed. This is made possible by Wibu-Systems' CodeMeter encryption and licensing technology and the certified printers of Farsoon Technologies. The necessary files are first encrypted and put up on the service portal for downloading; the client simply fills their digital shopping cart, checks out, and receives a license for pre-printing processing with the Buildstar® software of Farsoon Technologies as well as a printing license for a certain number of objects. This license is then used with the Makestar® software on specially certified Farsoon 3D printers. Both encrypted and unencrypted objects can be included in one job to bring down printing costs. The entire commercial process in the background is handled by CodeMeter License Central's integration with the SAP system of Daimler Buses. Leveraging the SAP Connector provided by our integration partner INFORMATICS in Austria, which expertly bridges the existing SAP system with CodeMeter License Central, and drawing on their extensive experience with both platforms, we achieved a seamless integration between the two systems in record time. This means that not only are the object files protected, but the entire order processing can be fully automated.

The CodeMeter solution provided by Wibu-Systems represents the essential technological basis for both encrypting the critical data and for creating and delivering the necessary licenses securely. The company's more than three decades of experience with protecting and monetizing knowhow and the solution's easy adaptation to the specific needs of Daimler Buses motivated the decision in favor of Wibu-Systems. Farsoon Technologies and 3D Systems have integrated the technology into its software products to create a fully secure process chain from the shop to the printer and advanced a pioneering role in the market for 3D printing service on the strength of the solution.



About Wibu-Systems:

Wibu-Systems is a global leader in cutting-edge cybersecurity and software license lifecycle management. We are committed to delivering unparalleled, award-winning, and internationally patented security solutions that protect the intellectual property embedded in digital assets and amplify the monetization opportunities of technical know-how. Catering to software publishers and intelligent device manufacturers, the interoperable hardware and software modules of our comprehensive CodeMeter suite safeguard against piracy, reverse engineering, tampering, sabotage, and cyberattacks across mainstream platforms and diverse industries.

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