

## Wibu-Systems Security Technology Shields Rail Tech from Cyber Threats

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- **The sophisticated technologies built into the TrainCAS system and the potential for criminal misuse make security and IP protection of paramount concern for the company.**
- **The TrainCAS software and the constituent trackmaps are secured by a combination of CodeMeter AxProtector and Core API tools to prevent both unauthorized use and illicit tampering.**

*CodeMeter protects Intelligence on Wheels' TrainCAS rail collision warning system for safe and secure rail travel*

Karlsruhe, Germany – **Wibu-Systems**, a global leader in the software licensing and protection industry, announced that [Intelligence on Wheels \(IoW\)](#), an offshoot of Germany's aerospace pioneers DLR, has integrated [CodeMeter](#) technology into its TrainCAS collision warning system to prevent cyber-attacks, protect IP, and provide a secure licensing solution. With a three-prong approach, TrainCAS brings together train-to-train communication, accurate self-localization, and situation analysis and decision support systems to empower rail operators and their staff on the ground to keep their trains running routinely and safely or to make quick, but well-informed decisions to avoid impending collisions. CodeMeter from Wibu-Systems provides proven cryptographic security-by-design and licensing solutions for protecting critical infrastructure against cyber-security threats.

Rolling stock collisions are among the rarest, but also the most catastrophic accidents and disasters in modern rail operations. Unlike the more common accidents, such as collisions with road vehicles at crossings or other objects on the track or technical failures that can be easily identified, train-on-train collisions can come down to a vast variety of factors, from human error to hardware or software malfunction. Furthermore, rail

operators must contend with a mix of modern, interconnected rail operating systems and tracks and a vast variety of rolling stock on their lines at the same time.

First and foremost, the TrainCAS collision warning system is designed to help save the lives of rail passengers. The system comprises a combination of sophisticated hardware, software, and data that not only has to be protected against threats from hackers or other malicious actors for safe and secure rail travel purposes, but also against undue attention and exploitation by competitors, less ethical users, or simply overly curious third parties. In the railroad industry, a model of robust engineering and regulatory oversight, solutions for safeguarding intellectual property and software license management must navigate the technical landscape and stringent mandates, especially considering the sector's key role in today's mass mobility infrastructure.

The sophisticated technologies built into loW's TrainCAS system and the potential for criminal misuse make security and IP protection a paramount concern for the company. loW turned to Wibu-Systems for its award-winning CodeMeter technology to encrypt and license its software and provide the hardware-based cryptographic security components to be built into the TrainCAS onboard technology in the field.

CodeMeter hardware was adapted to a rugged and tamper proof hardware solution to safeguard license repositories and provide safe havens for executing the crypto code during runtime for added protection against hackers. The TrainCAS software and the constituent trackmaps that enable the exceptionally reliable situation detection are secured by a combination of [CodeMeter AxProtector](#) and [Core API](#) tools chosen specifically to match the mixed embedded systems used by [Intelligence on Wheels](#). This prevents both unauthorized use by unlicensed users and tampering, intentional or unintentional, by people trying to manipulate the system.

*Dr. Thomas Strang, CEO, Intelligence on Wheels GmbH, noted: "For us, security-for-safety has two meanings: protecting the IP that makes our business possible and protecting trains out on the tracks against cyber-attacks. Working with our likeminded partners at Wibu-Systems was a pleasure, and holding the CodeMeter*

*hardware in my hands gives me the same feeling of reassurance I get when I see our TrainCAS systems in action.”*

*Stefan Bamberg, Director Sales & KAM, WIBU-SYSTEMS AG added: “For its principle of “security-for-safety“, Intelligence on Wheels places equal emphasis on the reliability of its safety systems as it does on the security of its IP and the system’s protection from tampering and sabotage. That’s why CodeMeter was the perfect solution to not only protect human lives from tragic rail collisions, but to protect IP and keep IoW’s competitive advantage intact.”*



Wibu-Systems CodeMeter technology protects the IP in Intelligence on Wheels’ TrainCAS collision warning system while ensuring rail safety by preventing cyber-attacks and malicious tampering of the sophisticated software and hardware solution.

#### **Additional Dedicated Resources**

- Complete success story – HTML format: <https://www.wibu.com/case-studies/success-stories/story/detail/intelligence-on-wheels-germany-mobility-and-transport.html>
- Complete success story – pdf file: <https://www.wibu.com/case-studies/file/download/12660.html>
- Audio track of the press release: [https://www.wibu.com/fileadmin/Audiofiles/press\\_releases/WIBU\\_IOW\\_EN.mp3](https://www.wibu.com/fileadmin/Audiofiles/press_releases/WIBU_IOW_EN.mp3)
- Press release images for download, ready for print and online publications: <https://wibu.sharefile.com/public/share/web-s9cdcbab0fd214cc294954661f2d410ce>

#### **About Wibu-Systems**

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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.



Media graphic resources available at: <https://www.wibu.com/photo-gallery.html>.

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