



## **InnovationCARL Software presents new solutions for operational BIM**

**CARL Software is one of Europe's leading specialists in the management of maintenance operations and equipment (EAM / CMMS) and technical asset management (TAM), and a key player in the life cycle of infrastructure and buildings.**

**CARL Software's ambition is to become a major player in operational BIM solutions. Accordingly, it has enhanced the CARL Maps module of its CARL Source software package with solutions for interacting with data from digital models.**

**CARL Maps is a multi-scale solution for processing and interacting with maps (GIS), plans and BIM models directly via native CARL Source functions.  
CARL Maps: expected benefits for operators**

**CARL Software has designed an IFC connector and implemented an API for incorporating 3D aspects of models into the CARL Source CMMS by**

integrating 3D viewing solutions available on the market.

This will enable technical departments to manage the maintenance of buildings and infrastructures directly in the CARL Source EAM/CMMS, using the digital models transmitted throughout the design phase. As soon as the digital completed work file is delivered, the technical department is operational, with access to continually-updated information to optimise its operational and maintenance tasks.

**A solution devised with CARL Source users**

The integration of BIM in the CARL Maps module is the result of discussions with two clients, HCL (Lyon hospitals) and SIAAP (waste water authority for the Paris metropolitan area), both of whom are modernising their digital applications for the design of new buildings and infrastructures. HCL has integrated the BIM model of the new building H at Lyon's Edouard Herriot Hospital into its CARL Source CMMS.

SIAAP is progressively integrating BIM models of its infrastructure, including its new biogas plant, into CARL Source.

**BIM advantages reach the CARL Maps solution**

In collaboration with Minalogic (the digital technology competitiveness cluster of the Auvergne Rhône- Alpes region) and BIM specialists, CARL Software has developed an IFC (Industry Foundation Classes) connector compatible with the latest standard BIM formats (2x 3 and 4).

This enables data from the digital model (rooms, equipment, networks) to be retrieved iteratively and exchanged with CARL Source. Equipment tree structures and repositories are thus initialised and updated from the BIM digital model.

The IFC connector ensures that technical departments have access, from the design phase onwards, to data about the infrastructure and buildings that they will be maintaining. This allows them to anticipate the asset management organisation (technical, regulatory, safety, preventive, financial and other details) and optimise maintenance processes.

Furthermore, viewing the 3D model of the assets (rooms, technical equipment, networks, furniture, etc.) derived from the BIM models can speed up the diagnosis of technical incidents, help in the preparation of maintenance work, and reduce technicians' intervention times.

This has been made possible by the development of APIs allowing the integration of 3D solutions available on the market. With CARL Source, models become interactive and allow users to interact with the tree structure, trigger maintenance actions (work requests, work orders, reports, etc.) and access

equipment details (documentation, technical specifications, etc.).  
Access to 3D models of networks also assists technicians with  
troubleshooting in the field.

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