

# INNOVAZIONE DIGITALE PER LA CONSERVAZIONE: LA GESTIONE DI DATI E INFORMAZIONI DELLE SUPERFICI ARCHITETTONICHE

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## **Abstract.**

In Italy, the digital transition for Public Administration introduces the use of digital tools so that the management of data reaches a high level of sustainability. The digital transition affects many sectors, including the Public Works sector. A gradual introduction of BIM is underway. Furthermore, this process evolution will also affect the Public Works sector concerning Cultural Heritage. The contribution shows the application of the method developed within the PRIN 2017 project "Historic Preservation Foundation Classes: Procedures and ontologies for interoperability in the protection of historical architectural heritage" for the management of data and information relating to Cultural Heritage. It shows an application example relating to decorated surfaces. Palazzo Belimbau was selected as an application case. Starting from the definition of the Conservation Process, we have arrived at creating an operational tool capable of managing data and information within a BIM environment; FreeCAD has been selected as the development environment of the tool. The compilation of the FreeCAD programming codes has allowed the implementation of the functions creating specific ones for the Conservation Process. Data and information assigned through the new functions are recorded and managed within a relational database in PostgreSQL. The application of the method made it possible to verify a possible use of IT tools for integrated data management within the BIM method for Cultural Heritage, highlighting its potential and limitations.

**Keywords:** *Ontologies, Interoperability, FOSS, Conservation Process*