

# 2D 3D RUD

RESTRUCTURING UNSTRUCTURED GRAPHICAL DOCUMENTS

## RUD SCOPE

RUD project aims at developing and validating innovative integrated technologies capable of performing searches and comparing both unstructured and heterogeneous files, in this case, non-structured data from 2D files/3D models. RUD tools will allow to classify and (re)organize documents and 3D models. The main challenge is to successfully integrate it in the field of restructuring vector graphics files and make a link with ERP and MES of large companies.

Nowadays, in the market it is hard to find a solution that can compare 2 heterogeneous files and extract similarities and differences after restructuring as the RUD project proposes.

Currently, there are some tools available on the market for comparative analysis of 2D and 3D files, usually CAD software, such as AUTOCAD, SOLIDWORKS, CIMATRON, PTC CREO, 3D TOOL, have this functionality. However, none of them foresee the correlation of the analysis with a historical archive of files or with relations of productive information and/or costs, as this approach requires an interconnection with the ERP and MES systems. In this perspective, the RUD's solution is bringing not only technical, but also organizational innovation, which will contribute to the improvement of the business management efficiency, as a solution equated to LEAN Thinking tools.

## RUD EXPECTATIONS

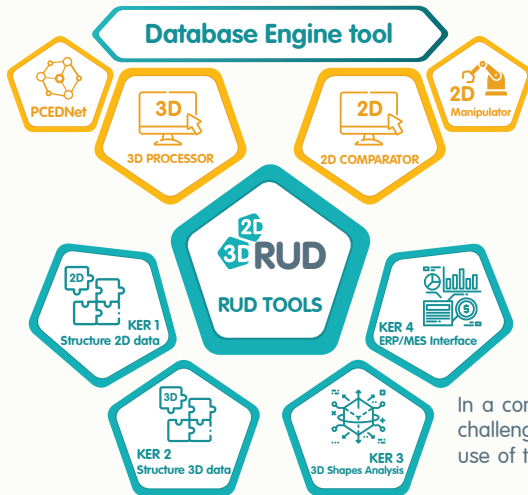
The products currently available on the market are specialized for a very specific need. As examples, finding a reusable CAD file, using the shape of the 3D model as the search key, running a complete analysis of a database to automatically identify all duplicates and nearby duplicates. In summary, these solutions serve the 3D needs of the manufacturing industry but can also enhanced drastically with the new capabilities developed during the project.

Therefore, the technologies that are being developed within the framework of RUD project, represent a real breakthrough in the processing of multimodal digital documents (text, 2D, 3D). They allow the design of innovative products that have no equivalent on the market. To leverage sales network and expertise, the focus will be on the manufacturing industry.



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## RUD KEY EXPLOITABLE RESULTS

In manufacturing companies, 2D and 3D files and models are linked to a huge amount of that data. 2D/3D files are the electronic files representing respectively a two/three-dimensional object. These 2D/3D files are created by Computer Aided Design (CAD Software). These types of data contain a lot of important information about the company (its processes, products, etc.) which, if adequately structured, could be used and provide valuable knowledge.

The current difficulty to transfer this data from one application to another makes this available data poorly use or not reused at all. In fact, nowadays it is challenging to transfer directly unstructured file's data.

In a context of exponential data's number growth, one of the main challenges for companies is to develop, manage and make the best use of these unstructured data. In such a situation, RUD project will come out with 4 following main innovative software tools:

- KER 1.** Structure 2D data, allowing the comparison of unstructured and heterogeneous 2D files. It can also extract and restructure differences and similarities
- KER 2.** Structure 3D data, leading to compare and analyze the 2D data and 3D shapes between different models
- KER 3.** Compare, extract differences, characterize and classify 3D shapes
- KER 4.** Interface restructured information with ERP and MES

for more information  
visit us at <https://rudproject.com>



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