🚀 Move to **BIM level 3** where only data and processes remain and where 🔓 your **data is yours**

data driven construction.io

CAD (BIM) data quality

Excel Add-in

Data filling in CAD (BIM)

Date analytics in construction

LLM for CAD (BIM)

automate the verification process

CAD (BIM) data quality

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Challenges	Objectives	Solution
Poor quality data Errors in models and parameters can lead to significant financial losses.	**Ensure high quality** of data coming from CAD and BIM systems	**Data conversion** Provides easy access an processing of data
Integration complexity Integrating data from different sources and formats requires significant resources.	**Reduce errors** and inconsistencies in models	**Open Data Formats** Use granular, structured data for simplified data integration
Closed data formats The use of proprietary formats makes it difficult to access and process data.	**Improve the process** of data integration and processing for later use	**Process Automation** Use Python and LLM to validate, analyze data

5 STEPS FOR ENSURING QUALITY OF CAD (BIM) DATA

01 Parameterization of the task

02 Creating validation rules

03 Fully automatic quality control

04 Fill the model with the right data

05 Presentation of verification data

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no API needed | no file based | no hidden fees
no internet needed | no limitations | no quality loss
no plugins | no subscription | no CAD-BIM needed

BIM level 3 | granular data | open data | unified
DataFrame | LLM | analytic | open source tools
data-driven decision | structured data | pipelines

streaming check within seconds

Checking the quality

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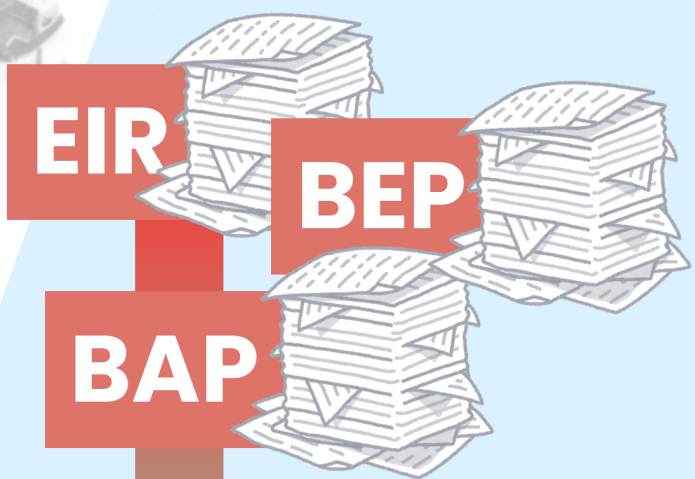
Move to BIM level 3

Your data is Yours

unified

granular data

structured data



unified

structured data

project data

XLSX

check rules

XLSX

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RVT X

IFC X

.dwg DWG X

FUNCTIONAL APPLICATIONS AVAILABLE IN THE DATADRIVENCONSTRUCTION PLUGIN FOR EXCEL

Your Bridge Between Excel and CAD (BIM)

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Move to BIM level 3

Your data is Yours

converter

DDC

data export

plugin

API

model filling

project data

XLSX

Benefits

Data Security
Data is under complete control and accessible without third-party vendors

Interoperability
Interoperability between different systems, regardless of their origins

Improved Collaboration
Collaborate in real time with open data and tools

Scalable Solutions
Solutions that easily scale to any project size

Cost Efficiency
Reduce costs by utilizing free and open source tools

PDF

XLS

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build smart, build precise

Date analytics in construction

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Key Benefits

Improved Project Planning
Data analytics enable predictive modeling for better accuracy in timelines and budgeting

Efficient Resource Management
Optimize allocation of materials, machinery, and manpower with real-time data

Risk Mitigation
Advanced analytics help identify potential risks and devise proactive strategies to mitigate them

Our Approach

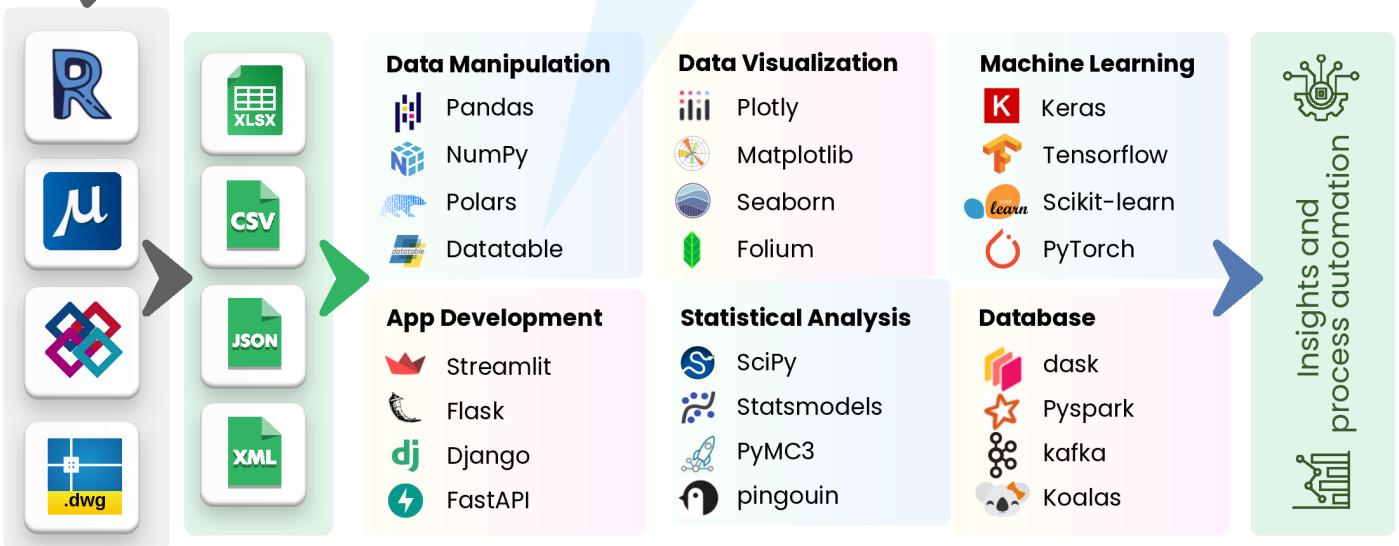
Data Integration
Seamless aggregation of data from various sources including BIM, CAD, and IoT devices

Custom Analytics Solutions
Tailored analytics frameworks that align with specific project needs and goals

Continuous Support and Training
Ensuring your team is equipped to utilize analytical tools and methodologies effectively

Life Is Short, Use Python

to work with construction project data



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TEXT TO ACTION

LLM for CAD-BIM

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GROUPING AND PROCESSING WITH ONE LINE OF CODE

Input

```
# Whether each element contains the values

df[df['Category'].isin(['Wall', 'Window'])]
```

Id	Category	Length	Volume
12577	Wall	3200	1.0
15889	Wall	5400	6.0
74456	Window	1700	0.5

Input

```
# Grouping a Revit or IFC project by parameters

df.groupby('Category')['Volume', 'Length'].sum()
```

Category	Volume	Length
Door	0.3	1300
Wall	7.0	8600
Window	0.5	1700

Input

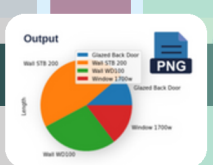
```
from fpdf import FPDF

# Determining the volumetric characteristics of the group
s_cat = 'Window'
dfq= df[df['Category'].str.match(s_cat)]
dfq = dfq.groupby('Category')['Volume', 'Length'].sum()
cat_len = str(dfq.iloc[0]['Length'])
cat_vol = str(dfq.iloc[0]['Volume'])

# Creating a PDF document based on the parameters found
pdf = FPDF()
pdf.add_page()
pdf.set_font('Arial', 'B', 16)
pdf.cell(190, 8, 'Category: ' + s_cat, 2, 1, 'L')
pdf.set_font('Arial', '', 14)
pdf.cell(190, 8, 'Sum of volumes: ' + cat_vol, 2, 1, 'L')
pdf.cell(190, 8, 'Sum of lengths: ' + cat_len, 2, 1, 'L')

# Saving a document in PDF format
pdf.output('c:\Report_DataDrivenConstruction.pdf', 'F')
```

Output



PDF

TEXT REQUESTS VIA PROMTS IN LLM CHATS

Filter the data in the project to keep the wall category items in the project

Group the project by the "Type Name" parameter and show the volume of each group

Choose the first 20 types by volume and show the result as a Pie chart

Create a PDF report with a table and a graph

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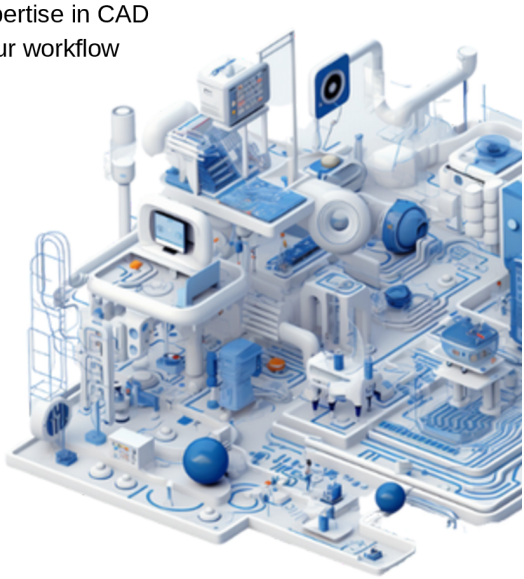
Unlock the full potential of your construction projects with our specialized consulting services at DataDrivenConstruction.io. Our expertise in CAD (BIM) data integration and management transforms your workflow efficiency and decision-making process.



What We Offer

Customized Data Strategies
Tailored solutions for data collection, management, and analysis that fit your specific project requirements

CAD Conversion and Integration
Streamline your project documentation with our advanced CAD conversion tools, making data easily accessible and usable

Training and Support
Empower your team with the knowledge to leverage BIM data, enhancing productivity and innovation

Your Benefits

Reduce Costs and Save Time
Our strategies optimize resource allocation and project timelines

Enhanced Decision Making
With better data at your fingertips, make more informed decisions that lead to successful project outcomes

Competitive Edge
Stay ahead in the industry with cutting-edge data practices that set your projects apart

Transform your approach with DataDrivenConstruction and lead your projects to success with data!

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