
WorkfloPlus
DEVELOPED BY INT0WARE
Visualise your WorkfloPlus Data
INT0WARE

Introduction

WorkfloPlus allows users to visualise their WorkfloPlus data; from the Insights page users can gain understanding as to how WorkfloPlus is being used by their organisation over time.

However in order to take the a contextualised view of your data and to have access to the most feature rich data visualisation options it is recommend to extract your data from WorkfloPlus into a BI (Business Insight) or Data Visualisation tool.

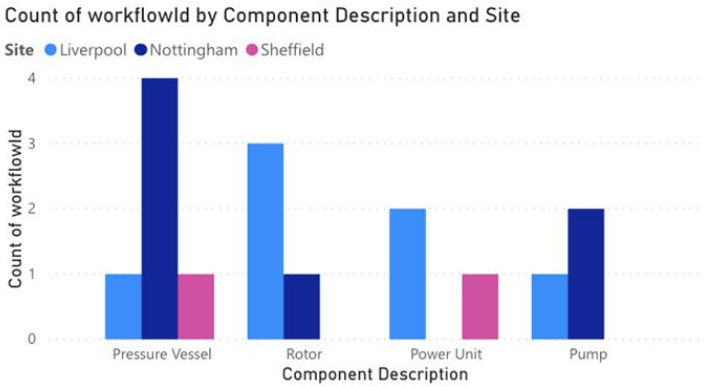
Popular tools for data visualisation include Power BI, Tableau, Sisense, SAS JMP, Looker and Birst additionally lots of people still prefer visualising data within a spreadsheet tool such as Excel or Google Sheets

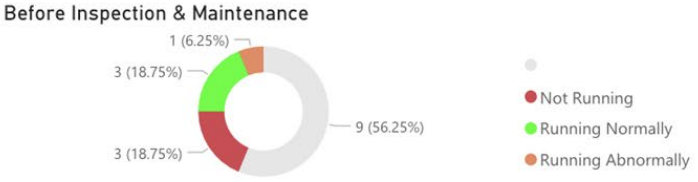
Power BI Dashboard Examples

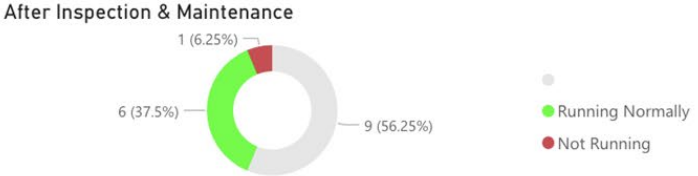
Example: Component Maintenance & Inspection

Component Inspection & Maintenance Reports

Site	updated	activeDuration	componentCodeStep_value	Component Description
Liverpool	19/06/2020 09:16:35	127	MC004	Power Unit
Liverpool	19/06/2020 10:23:50	81	MC003	Pressure Vessel
Liverpool	19/06/2020 11:32:11	93	MC002	Rotor
Nottingham	19/06/2020 15:41:21	62	MC003	Pressure Vessel
Sheffield	19/06/2020 18:19:22	61	MC003	Pressure Vessel
Liverpool	26/06/2020 15:06:25	65	MC002	Rotor
Nottingham	26/06/2020 15:11:46	76	MC001	Pump
Liverpool	07/07/2020 10:19:55	596	MC001	Pump
Sheffield	13/07/2020 07:54:06	69	MC004	Power Unit
Total		**1931**		





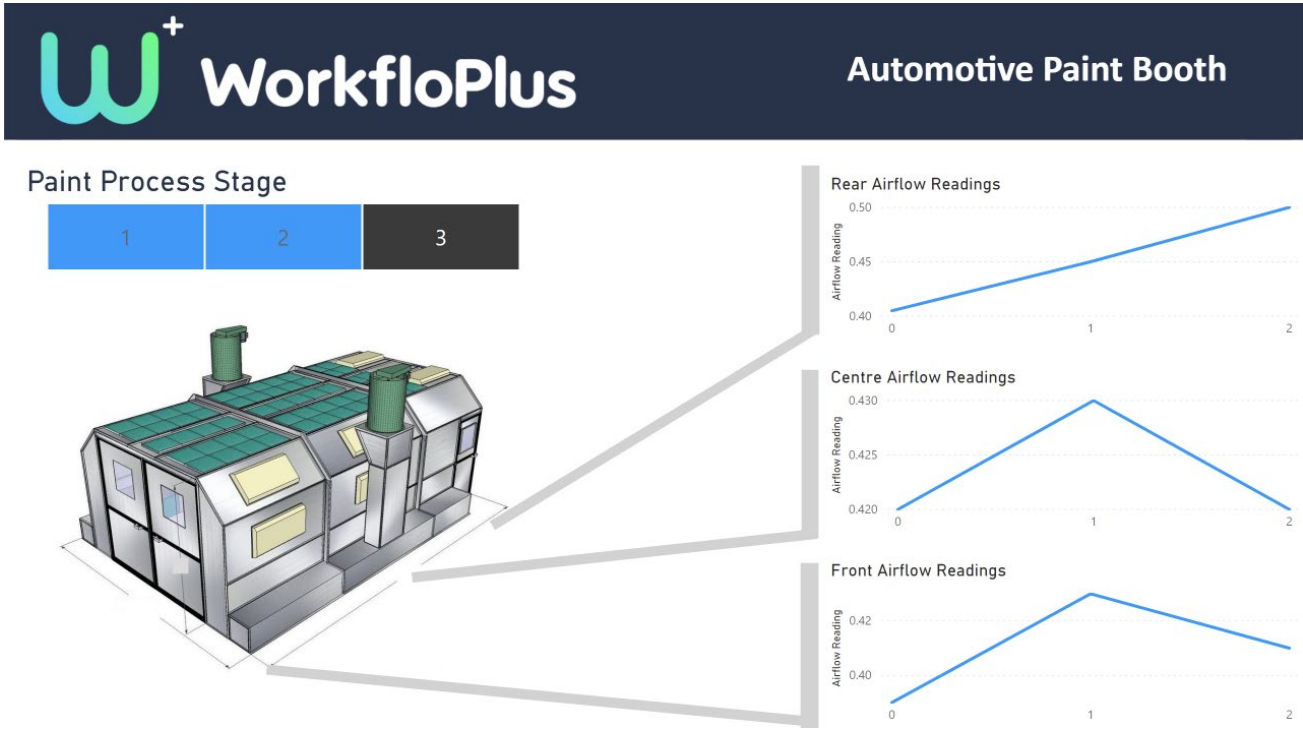


[Link to Example Power BI Dashboard]

Example: Automotive Paint Booth Readings

Airflow readings are captured at various stages of the paint process and in a series of locations within the booth, at each section the flow speeds should be a characteristic pyramid shape.

The line charts give a quick visual indication of deviation from optimal flow, this suggests a post-spray quality inspection is required

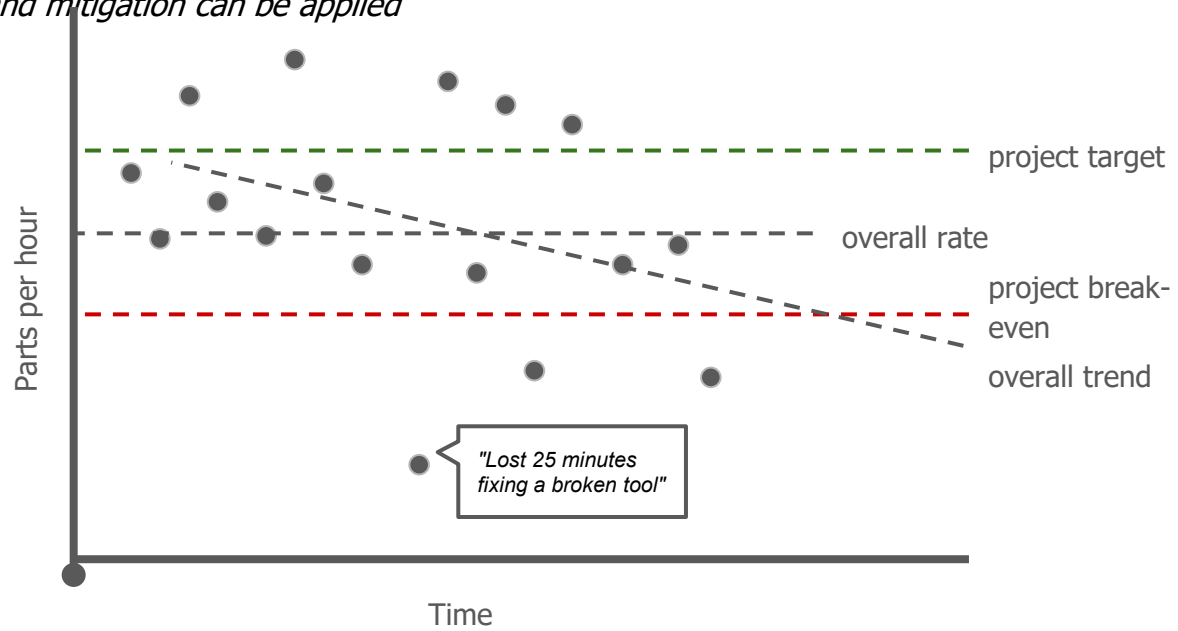


Example: Production Line Project Tracking

Production line output is recorded by each worker, job times are then used to calculate component production per hour.

Data is ingested to Power BI where each project is visualised to compare current performance against targets.

Projects that are at risk can be foreseen and mitigation can be applied



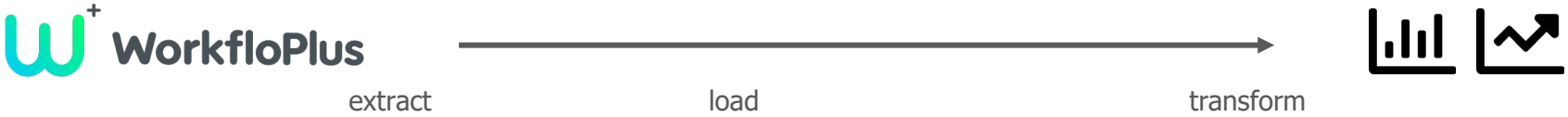
Data Visualisation Solution Architectures

Working with the WorkfloPlus Data

In order to be able to work with the data in a visualisation tool, it needs to be in a format that the tool can work with. The WorkfloPlus Query API allows users to specify the data they are interested in and then extract that data. The following slides outline two approaches for going from WorkfloPlus to data visualisation.

Access Data Directly

The most direct approach to visualising your WorkfloPlus data is to point your visualisation tool at the WorkfloPlus Query API and extract the data you need, once the data is in the visualisation tool you can then work with it and apply any further transformation required.



There are limitations to this approach though, WorkfloPlus will only allow a limited amount of data to be served in a single query and some transformations may prove difficult to achieve from within the data visualisation tool

Build a Dataset

Rather than aiming to pull the data from WorkfloPlus into your data visualisation tool a better approach is to build a separate dataset. In this approach a separate data engineering tool is used to query WorkfloPlus at regular intervals and store any new data found in a separate dataset. The benefit of this approach is that a much larger dataset can be visualised and the data engineering tool used to extract the data can also be used to apply transformation to the data.

Options for the data engineering tool include Zapier, Power Automate, Azure Function, AWS Lambda Function, Alteryx, Talend, Azure Data Factory, Airflow and Luigi. Ideally the dataset should be a database and it makes sense to choose one that connects well to your data visualisation tool, however whilst not recommended the dataset could also be an online spreadsheet.

Intoware Data Services

Range of Intoware Data Services

WorkfloPlus has been designed to allow you to extract your data and from there create a data visualisation solution that is right for your business. However we are happy to offer the following services to help support you in creating your data visualisation solution.

- WorkfloPlus Data Feature Training
- Creating WorkfloPlus GraphQL Queries
- Creating Power BI Dashboards
- Hosting Power BI Dashboards
- Maintaining Power BI Dashboards
- Creating & Maintaining a Data Pipeline

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