

# USER GUIDE

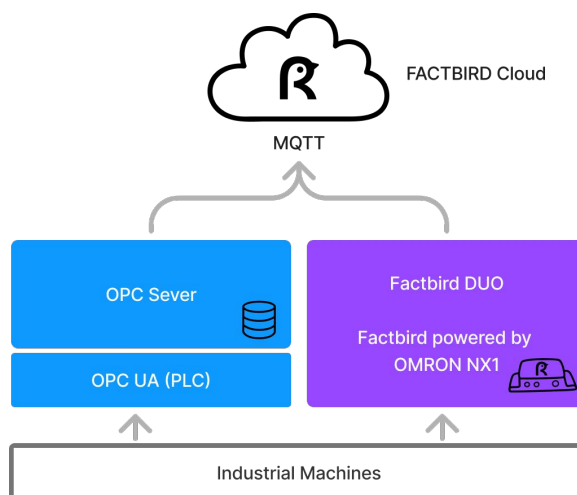
## Connecting OPC server

### Collecting PLC data using OPC servers

#### Overview

This document provides an overview of how OPC servers can assist with data collection in your factories. The general setup when using an OPC server is shown on the left side of the diagram, while the right side illustrates data collection using Factbird edge devices.

Please choose the most suitable data collection option depending on your factory setup and requirements.



#### PLC tags

Factories may have many production lines, each consisting of several machines. Automation is, in most cases, controlled by PLCs (Programmable Logic Controllers). The PLCs contain various types of data, such as production data, configurations, etc., stored in internal variables known as “tags.” A tag could contain a counter with “pieces produced” or the “current temperature”. The PLC tags are essential for the function of the machines and are also crucial when communicating with other systems.

If you want to access this data in detail, analyzing historical values to better understand your production pipeline, you need a system that can receive the data stored in these PLC tags as input and provide analyzed data as output. Factbird® is such a system.

#### Sending PLC tags to Factbird

You want to send these PLC tags to Factbird to analyse the data, but most PLCs can however not directly connect to Factbird’s Cloud. Therefore, you need an intermediary between the PLC and Factbird. The intermediary needs to be able to read data from PLCs that may come from different vendors and be able to send data to Factbird. An OPC server can be used as such an intermediary.

#### Options to choose

There are multiple OPC server software programs available.

- **Kepware:** The advantage of Kepware is that it excels in having a vast number of drivers that enable it to read data from almost any PLC. Kepware is a software suite that is installed on a computer with network connectivity (e.g., Wi-Fi or Ethernet) to the PLCs at the factory. It should be installed on a computer that can run 24/7 so that it can always receive data from PLCs. Kepware can be purchased from your local Kepware distributor. With a Kepware setup, it is possible to read PLC tags and forward the tags of interest to Factbird’s cloud for storage and analysis. Both Kepware and Factbird can handle many PLC tags from different PLCs simultaneously.