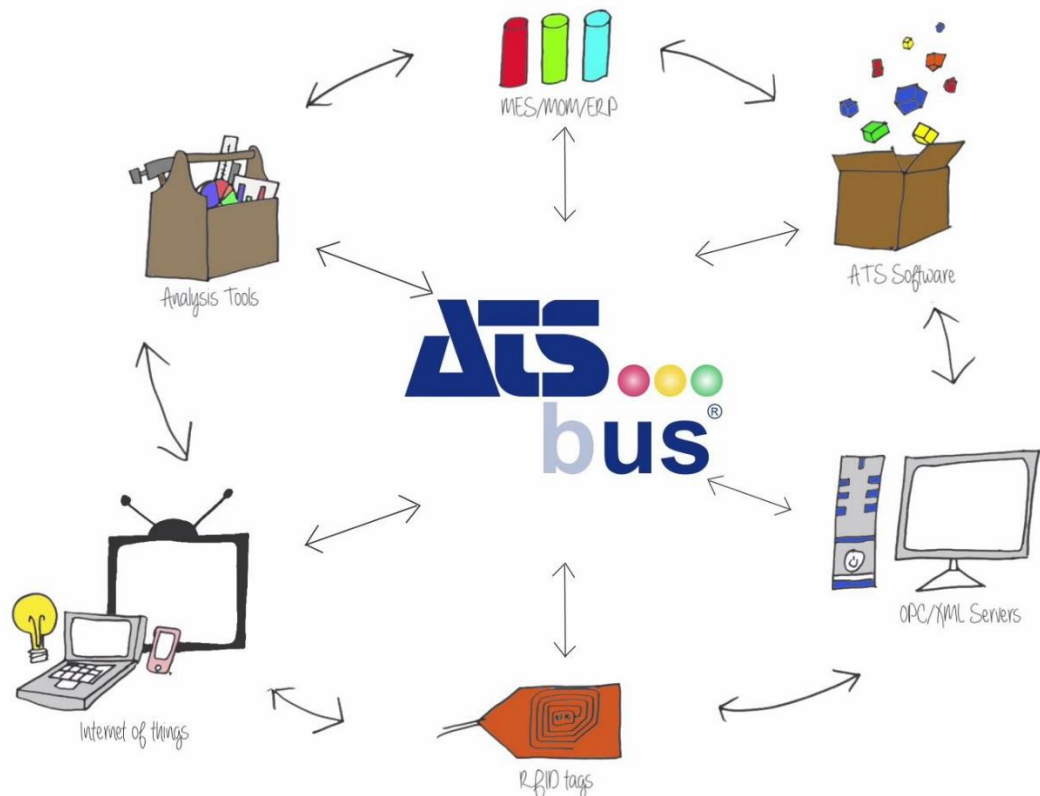


The Manufacturing Service Bus



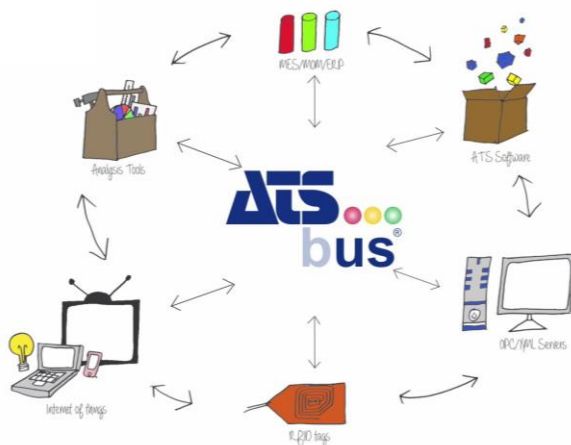
Getting Your Production Data Where it Needs to Go

The Industrial Internet of Things, Big Data, Smart Manufacturing and Industry 4.0 are making data communication increasingly complex. See how ATS Bus can make it simple again.

The Connectivity Issue

A hurdle that every manufacturing plant must overcome is data connectivity. The format in which data is received from and sent to each application may vary, and that's before you even try and exchange data with OPC and XML servers on the shop floor or with the MES layer.

ATS Bus acts as a standardised channel through which all production data can be exchanged. Instead of having to create a customised connection for every combination of software and machinery everything will simply plug into ATS Bus.



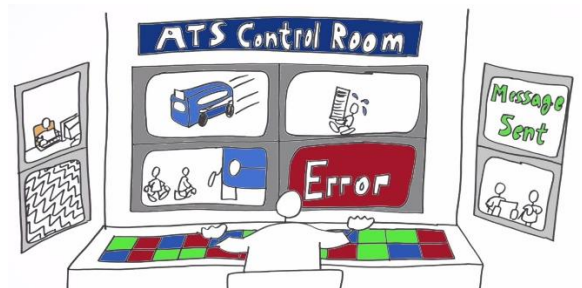
Ready for Industry 4.0

Industry 4.0 is presenting manufacturers with many opportunities and challenges. One of these challenges is data communications with Big Data and Small Data alike requiring innovative solutions. ATS Bus addresses these issues by incorporating the design principles of Industry 4.0.

- ▶ **Interoperability:** Data can be collected and delivered wherever it's needed with language barriers handled by ATS Bus.
- ▶ **Real-time Capability:** Data can be made available in multiple locations at the same time as soon as it's available.
- ▶ **Modularity:** Machinery, sensors and management systems can be replaced, upgraded and added to without overhauling the data infrastructure.

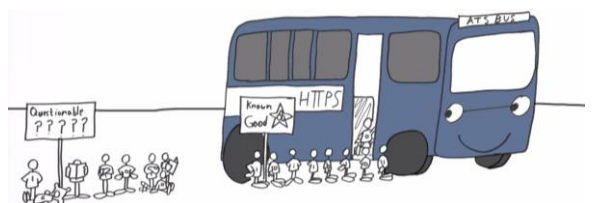
Data Flow Monitoring

ATS Bus allows you to remotely monitor data exchanges so you can keep track of the health of your system, monitor for processing errors, send failed messages for reprocessing and make sure all your specific environment's needs are met.



Secure Connections

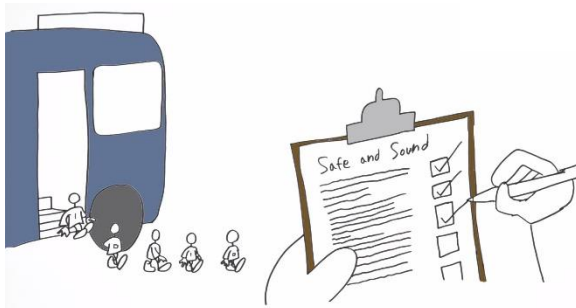
For secure environments ATS Bus can use secure connections. It can also check the "known good" against defined schemas ensuring, that from endpoint to endpoint, your data is in safe hands.



Built-in Resilience

A major fear of any manufacturer is the loss of data during production. This could be an order only being sent to some of the equipment due to a connection issue or produced quantities not being sent back to the MES system due to a power outage.

To prevent this, ATS Bus buffers data locally and utilises hand shakes to ensure that data is received correctly. This avoids data loss and overcomes any issues of network latency and power outages.

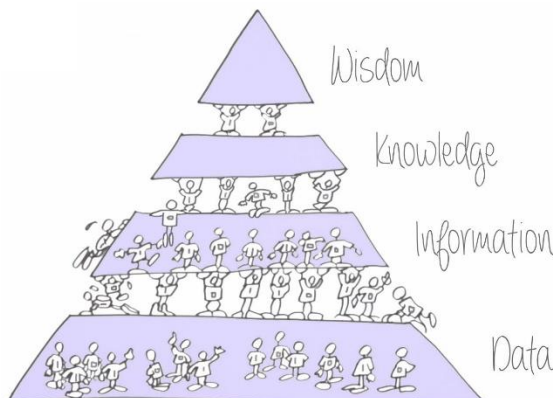


Add Context to Tag Data

One of the key benefits of ATS Bus is the way it adds metadata to your data.

By adding the context of how the data was collected in a standardized format data analytics engines are able to turn your data into information.

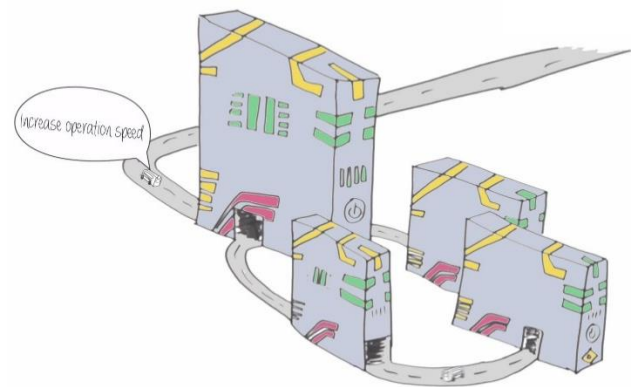
This will allow you to attain knowledge about your plant that will lead to the wisdom required to develop predictive and intelligent agents for automated decision making.



Centrally Managed - Locally Decided

Some traditional IT systems and architectures can appear slow. This is generally due to servers being centrally located with the network delaying the messages going back and forth.

With ATS Bus the data within the entire plant is available at every location enabling intelligent agents to make decisions locally.

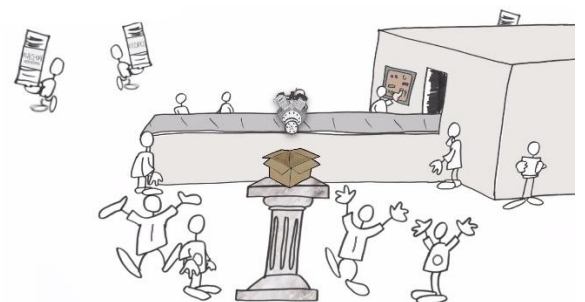


This form of automated, predictive control is just one example of the many uses that ATS Bus can find for your data.

Faster Product Introduction

The flexibility of ATS Bus will even help you to accelerate new product introduction

It can easily distribute your centrally managed work instructions, machine instructions, recipes, and robot and CNC programs, in the shortest time possible.



Convert Realtime Data to Event Driven Data

ATS Bus can take realtime data, such as a production order from the MES, and turn it into event driven data. This could be done in a number of ways. For a production order it could place it in a queue and the production request won't be sent to the equipment until the previous production run has finished.

Future-Proofing your Systems

ATS Bus is going to become an increasingly important tool as we move closer to Smart Manufacturing and Industry 4.0 and are presented with new challenges such as Big Data.

The technologies for collecting and analysing data are being developed in ever greater numbers but with ATS Bus you can stay ahead of the game and achieve Manufacturing Excellence by utilising ATS software while integrating your own data technologies.

Part of the ADOS Suite

ATS Bus is part of the ATS ADOS (Attribute, Dimensional, Operational and Shared) software suite which gives you endless avenues along which to develop and expand your manufacturing potential.



ATS ADOS was awarded Frost & Sullivan's 2014 Global Plant Data Management and Quality Optimization Solutions for Discrete Industries New Product Innovation Award.



Thanks to the pioneering nature of the ATS ADOS software suite the TechniShow jury has awarded it the status of *INNOVATOR* at the TechniShow Innovation Awards 2016.



Visit the ATS ADOS website [here](#).

ATS is an **Independent Solution Provider**, with over 30 years' experience in the manufacturing systems arena and a wealth of experience undertaking Continuous Improvement initiatives and Manufacturing IT solution design, deployments and 24/7 support assignments.

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