B-Scada

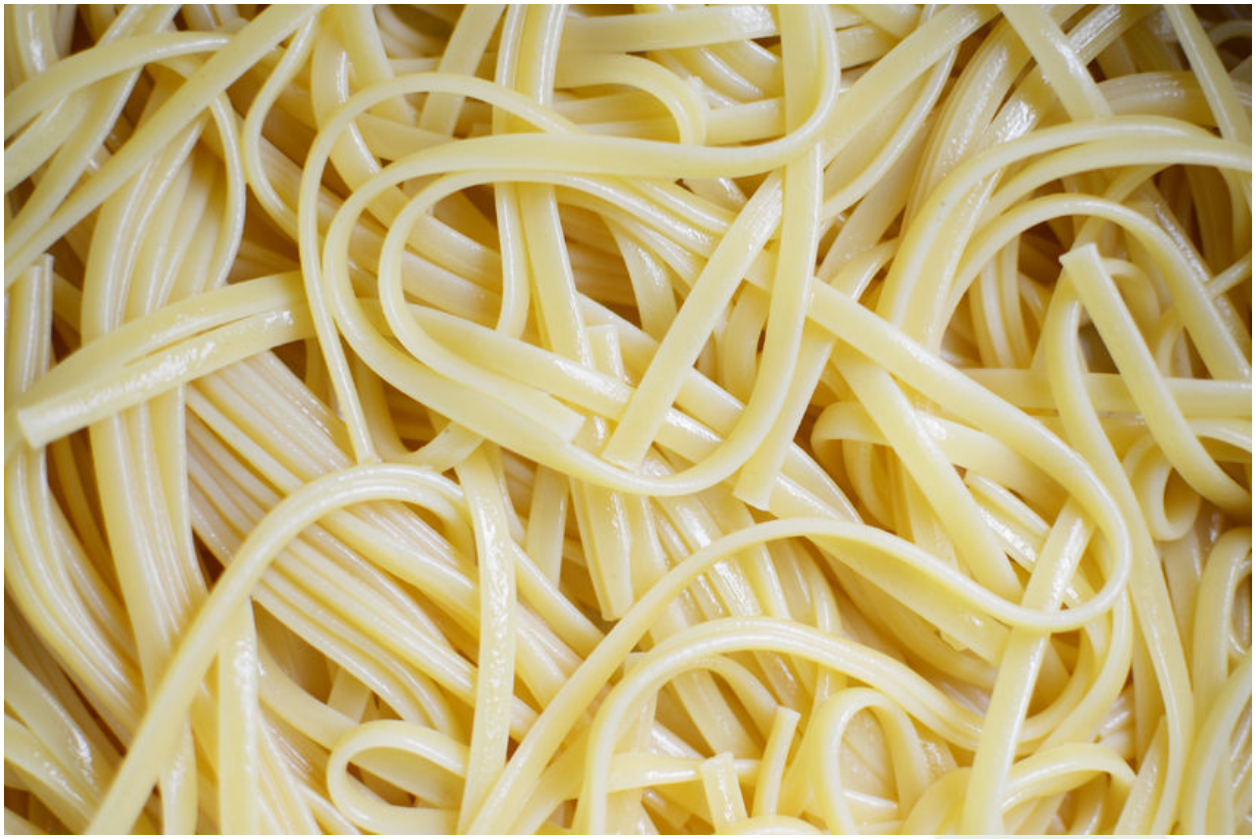
Beyond Scada®

Do you Data Model?

Adding Organization and Flexibility to Your SCADA System Through Data Modeling

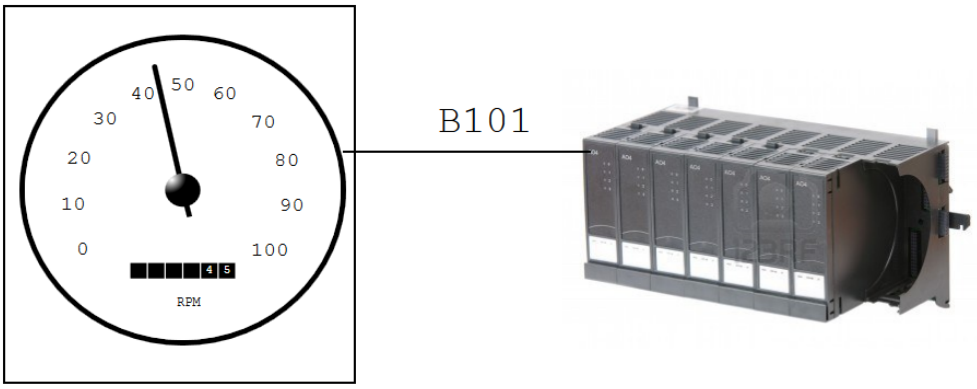
Contents

The key to any successful HMI/SCADA system deployment is organization. Without organization, your project will quickly turn into a big blob of….well you get the picture….



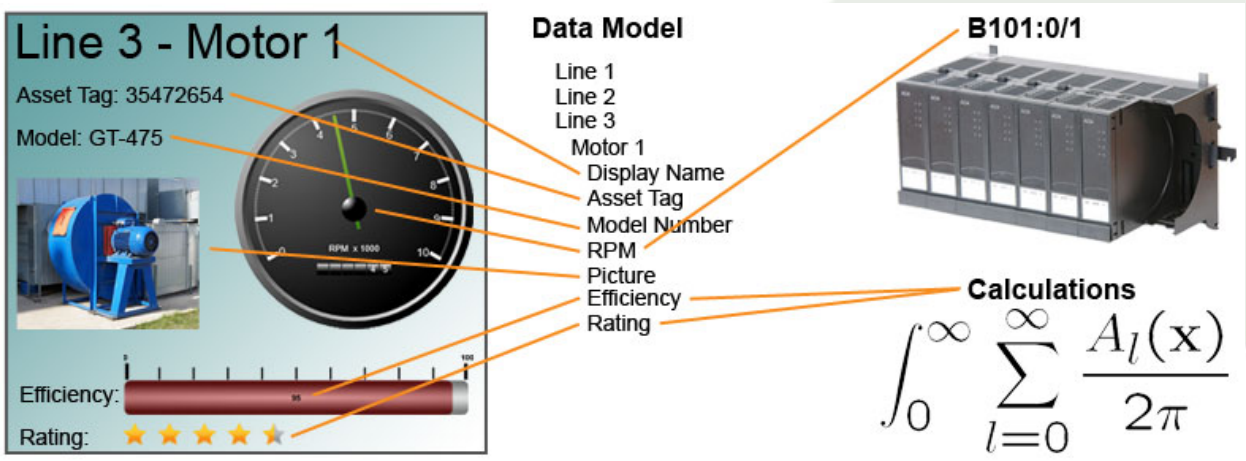
Data Modeling = Organization

Older style, out of date HMI and SCADA products bind your raw data directly to the graphics in your HMI system. There is no organization.



Place dozens of graphics on dozens of screens and you have a maintenance nightmare.

Data Modeling allows you to create a Data Model of the assets that you are monitoring. The HMI/SCADA screens (or other applications) are bound to the Data Model not the PLC or OPC Server memory addresses. Additional information can be added creating a virtualized version of the assets you are monitoring.



Data Modeling has some significant advantages:

Reduce the deployment time of your HMI/SCADA System

Using data modeling, the Data Model and all of the mimics can be created long before any PLC's or OPC Servers are available. All bindings in the mimics are bound to the model not to the live data. This allows you to design and develop your screens ahead of, or in parallel to, the installation of your hardware. It also allows graphics designers and others to participate in the design and development of the HMI/SCADA screens without intimate knowledge of the memory addresses of your hardware.

Changes to the PLC or OPC Bindings do not affect the HMI/SCADA deployment

If the mapping between the PLC address and the model changes, it does not affect the HMI/SCADA screens (mimics) because they are bound to the model not the memory addresses. The screens do not need to be republished, compiled or redistributed to the end users.

Models provide functionality well beyond data monitoring

Binding a memory address to a graphic you get the value of the memory address and that's it. With data modeling your assets become more sophisticated and much more intelligent objects. Using data modeling for example, a temperature sensor can have more than just a temperature property. It can have an asset tag, model number, manufacturer, maintenance technician, a troubleshooting manual and maintenance history. It can have historical performance data and can belong to a logical hierarchy of objects like a storage tank or motor on an assembly line. All of this information can be displayed in the mimics representing your assets.

Screen Reuse for Similar Objects

Hard coding memory addresses on your PLC or OPC Server directly to a graphic means that you have to have one graphic for each of your assets. Using data modeling a graphic can be created for a ‘type’ of asset, allowing the same mimic to be used when viewing any asset of that type. For example, creating a single mimic for a wind generator type allows you to view any wind generator in your wind farm with the same mimic. With older style HMI/SCADA applications you need to create a mimic for each wind generator.

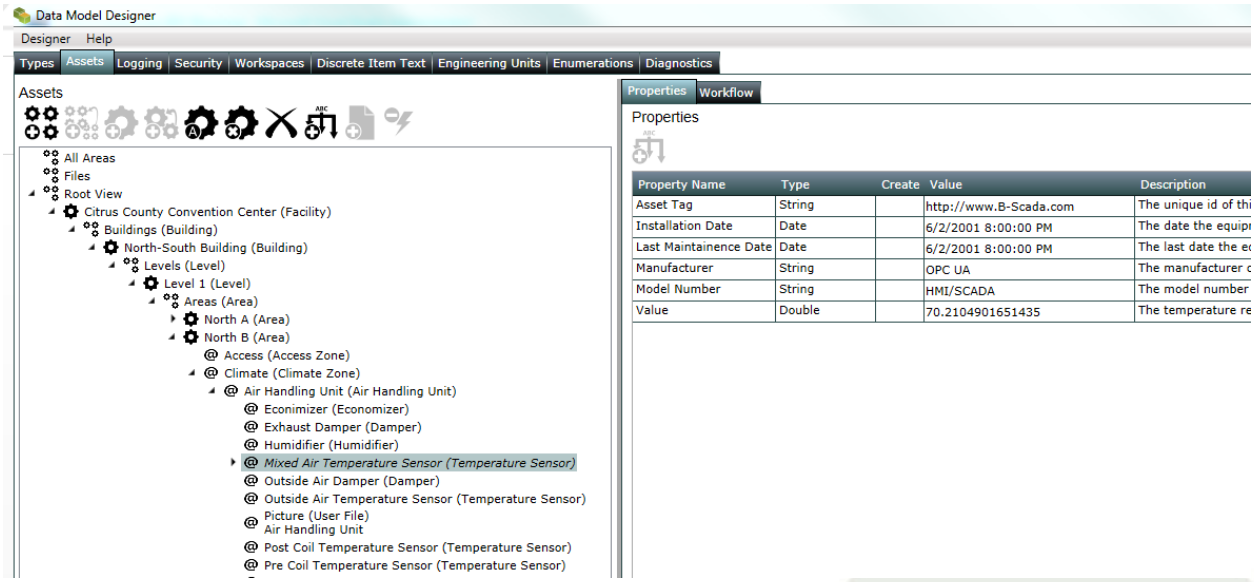
Integration with Back office and other Enterprise Systems

Having a data model makes it easy to integrate information from your assets into other back office or enterprise applications. Data Models make it easy to create custom applications and workflow for improving efficiency, productivity, production quality and safety.

Using a Data Model, your information starts to look a much more organized. Kind of like….

What does a Data Model look like and how do I create one?

In Status Enterprise, Data Models are created using the Data Model Designer. The Data Model is maintained by the Status Enterprise Server. The data model can be accessed by third party applications using our Status Object Model API or by using the well documented OPC UA interfaces. Our HMI/SCADA graphic design applications bind dozens of different graphic controls directly to the model. You can also use our Data Model Browser to walk your model, view real time or historical data, alarms and trends.



What kinds of objects can I monitor or create in my Data Model?

Status Enterprise is not designed for any particular types of objects. You are free to design your own Data Model for any type of assets that you manage. You define your types, properties and alarms for your assets. These assets could be from manufacturing, petro chemical, energy management, electricity distribution or transportation. B-Scada also has deployments where our products are used to

monitor KPI (Key Point Indicators) in business and financial data. If you have assets to monitor and manage of any kind, B-Scada products can help you address your requirements.

Can I view my Data Model on my mobile device or tablet?

Yes, Status Enterprise supports the design of mimics in HTML 5 which can be used on most tablets and mobile devices.

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