

MYNXG® TRACOBIN® MAKE YOUR LOGISTIC SMART

SOLUTION

The most critical step in the Logistic Chain is the recognition that a part must be re-ordered. The entire production is always dependent that all parts are available. Very often the small standard components are the most critical ones. To address this challenge, big companies use the BIN KanBan Solutions of Würth. However, the existing system is dependent on the human factor and the recognition that the parts must be ordered.

The MYNXG® TracoBin® Logistic offers now the solution that solves the most important challenges for the part logistics:

- Re-Order of the parts.
- Portfolio Maintenance, adding or removing parts.
- Electronic Inventory, recognition of order levels.
- Supplier Process, adding and finding the best supplier.

Transformation:

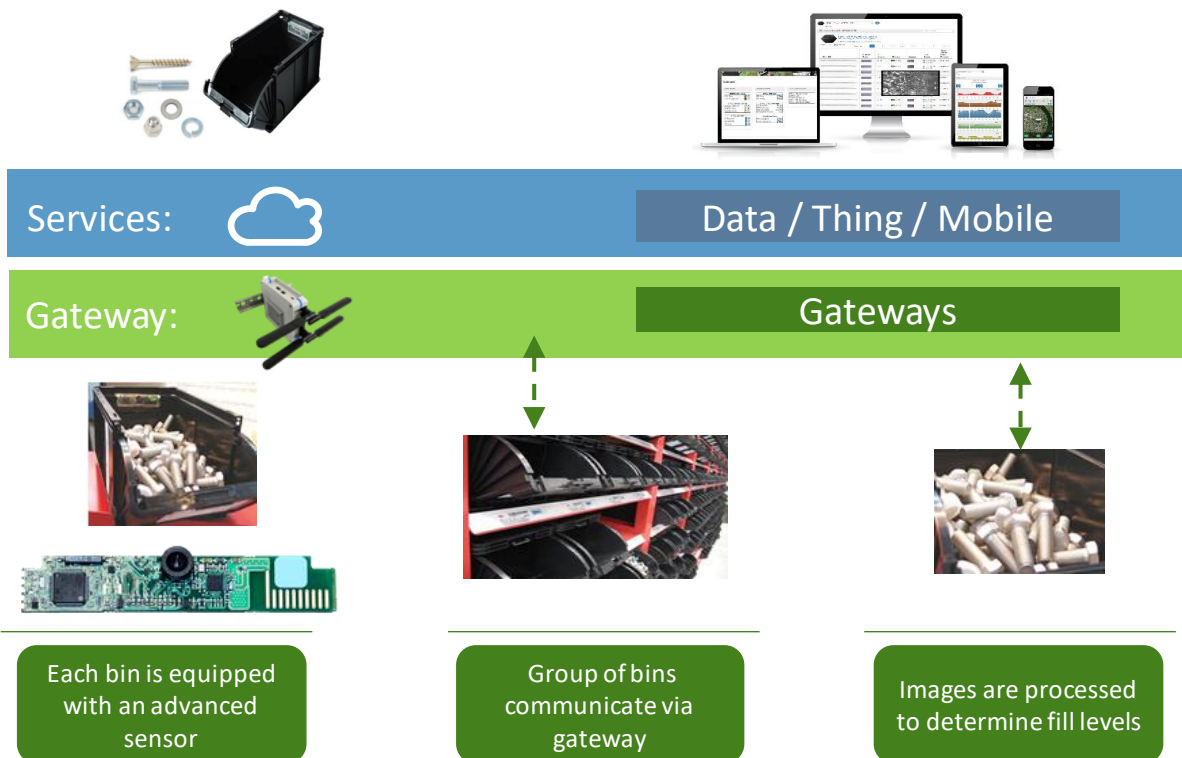


Figure 1: TracoBin Logistic Solution.

TracoBin® offers a full service solution for the logistic challenges including:

- Services provided via the SAP HANA Cloud Platform.
- Import of data from existing SAP ERP solutions.
- Any Supplier can be added and goods can be managed
 - via KanBan where the BIN is cycling between the supplier and the shelf,
 - or by supply of standard packages into the BIN.

MAKE YOUR LOGISTICS SMART

The TracoBin® Solution is easy to install, all components are designed for the challenges of the rough conditions in the logistic world.

- You can utilize any existing Industrial Shelf.
- KanBan BINS of Würth.
- TracoBin® for best radio performance and longest standby designed sensors.
- MYNXG® industrial controller, self-installing plug and play.
- MYNXG® TracoBin® SAP as a Service Application.
- Integration Options to link TracoBin® with your existing SAP ERP solutions.

The system sets new benchmarks for the producing industry. The components are designed for the daily logistic usage, simplicity of the interaction has been the guiding design principle.

The TracoBin sensor is placed inside the BIN. You define how often an image of the fill level is taken, typical 4 times a day. The image is transferred to the MYNXG Controller, where the image is analyzed and the fill level is computed. The fill levels of all BINs are reported into the SAP HANA Cloud System. Inventory, Re-order and Supplier selection are provisioned.

By launching Your application on your tablet

- You know the entire inventory, precise, accurate and any time, without causing any overhead or extra personnel cost.
- With one click you authorize the next order of parts.
- You can add easily new parts to your portfolio.
- You can select and compare parts from multiple suppliers.

iBin SN	Article Type	Normalized Fill Level	Battery	Last Seen	Status
00001160		10 %	3.34V	02.02.2018, 12:50:58	OK
00001442		N/A	3.33V	02.02.2018, 12:50:56	Ignored
00001129		N/A	3.36V	02.02.2018, 12:50:27	Ignored
00001210		2 %	3.37V	02.02.2018, 12:50:26	OK
00001502		100 %	3.33V	02.02.2018, 12:50:13	OK
00001431		13 %	3.36V	02.02.2018, 12:49:43	OK
00001140		32 %	3.36V	02.02.2018, 12:49:28	OK
00001419		35 %	3.34V	02.02.2018, 12:48:42	OK
00001186		39 %	3.34V	02.02.2018, 12:48:27	OK
00001404		73 %	3.38V	02.02.2018, 12:48:12	OK


Figure 2 TracoBin® Access to Electronic Inventory

TRANSFORM DATA INTO SMART DATA


Transformation: Kanban System Re- Order Portfolio Maintenance

Services: System Monitoring Electronic Inventory Thing Management


Things: Image Processing Fill Level Analysis Sensor Management



Thousands of BINS



BIN with Sensor



Sensor with Camera

Figure 3: TracoBin Solution implemented on the MYNXG IoT System.

The entire TracoBin® logistic process is built upon experience and patents of Würth that have been proven inside the industry. MyOmegas world leading sensor know how and MYNXG® US patented IoT and network management technologies enables the solution for the Industry 4.0. SAP HANA as the ERP system of choice. TracoBin® combines the best solutions into one system.

The Organization of the TracoBin® is simple and reflects the best industry practice.

- Each Bin is located in a defined shelf at a defined shelf place.
- Parts are mostly organized with Master Data inside ERP and Production Systems.
- TracoBin® requires information that can typically be imported from the Master Data Files.
- Each Part is located inside one BIN.

- Each BIN has a Label that contains all informations, referenced with barcodes.
- The same Label is placed inside the shelf at the defined shelf place.
- All that information is available also electronically inside the Transformation Layer.

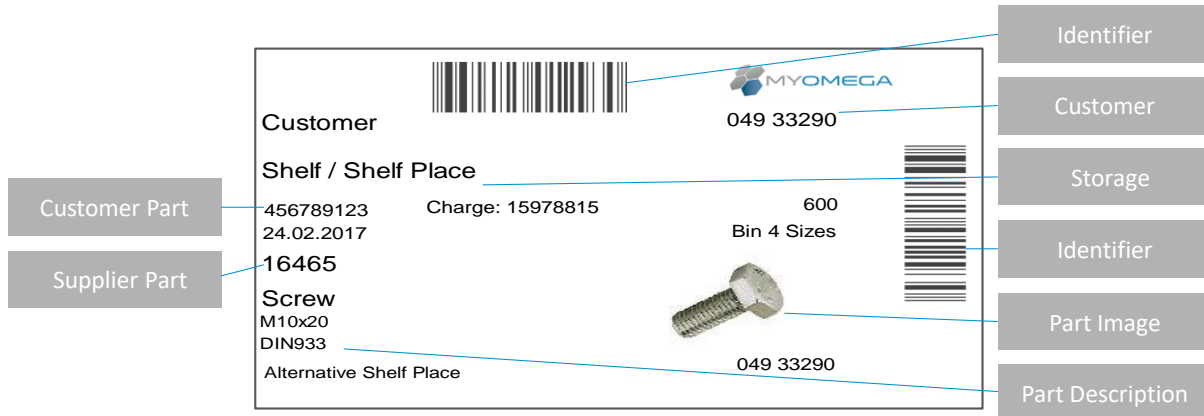


Figure 4 TracoBin® Format of the BIN Label

MANAGE YOUR INVENTORY



Figure 5: Typical TracoBin Installation.

The Organization of the TracoBin® is simple and reflects the best industry practice. Portfolio Maintenance is explained by the following process:

- Introduction of a new part within the TracoBin system.
 - Within the application the wished part is selected.
 - Master Data is imported/ created.
 - Bin size, fill level and the order limit are defined.
 - Shelf and the shelf place is selected.
 - Printing of Labels is getting triggered.

- Part introduction and initial handling of the BIN at the shelf.
 - Print out of labels.
 - One label placed at the Shelf.
 - One label placed on the BIN.
 - Scan of the 3 labels:
 - The BIN, to register and validate the size.
 - The TracoBin® to register the sensor.
 - The Label at the shelf.
 - The Battery is inserted into the TracoBin®
 - TracoBin® is attached to the BIN.
 - BIN is placed at the defined shelf place.
 - The entire information is registered and combine within the system. The system recognizes that the bin is empty. The supply is initiated.

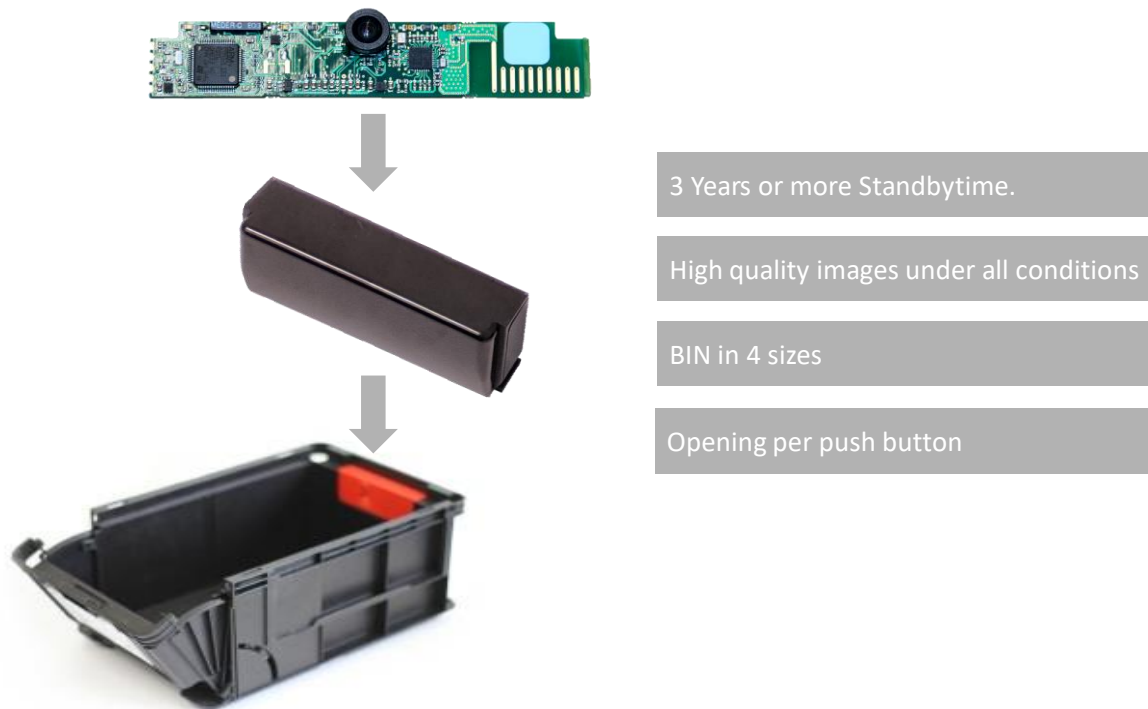


Figure 6 TracoBin® BIN and Camera Sensor

- Re-Order process:
 - The fill level is below the re-order limit.
 - TracoBin® re-order informs that parts must be ordered.
 - TracoBin® lists all parts that are below the re-order limit.
 - TracoBin® is able to present the last image of each part if requested.
 - The order is approved, following approval processes, the suppliers receives the order.
 - Each supplier delivers its parts, the delivered goods are filled into the defined bins.
 - TracoBin® informs about the order progress for each triggered order.
 - TracoBin® causes alarms when parts do not arrive.
- Re-order within the KANBAN process.
 - The supplier revcieves the order.
 - The supplier submits the BIN with the TracoBin® Kamera Sensor.
 - The supplier places the BIN at the defined shelf / shelf place.

TracoBin® Basic Kit for Customers:

- MYNXG Gateway.
- MYNXG TracoBin® and BINs W-KLT 2.0®.
- MYNXG TracoBin®SW for Android® Mobile Tablet or Phone.
- MYNXG TracoBin® SW package and license for SAP as a Service.
- Support to create and install TracoBin®.

Basic Supplier Package:

- MYNXG Gateway with inspection station for test of TracoBin®.
- MYNXG TracoBin® and BINs W-KLT 2.0®.
- MYNXG TracoBin®SW for Android® Mobile Tablet or Phone.
- MYNXG TracoBin® SW supplier package with SAP as a Service for order and commissioning.
- Support to create and install TracoBin® and to setup KanBan processes.