MODI
VISION FOR IDENTIFICATION

TRACEABILITY
4.0

MATERIAL AND PRODUCTION MONITORING 4.0
100% TRACEABLE

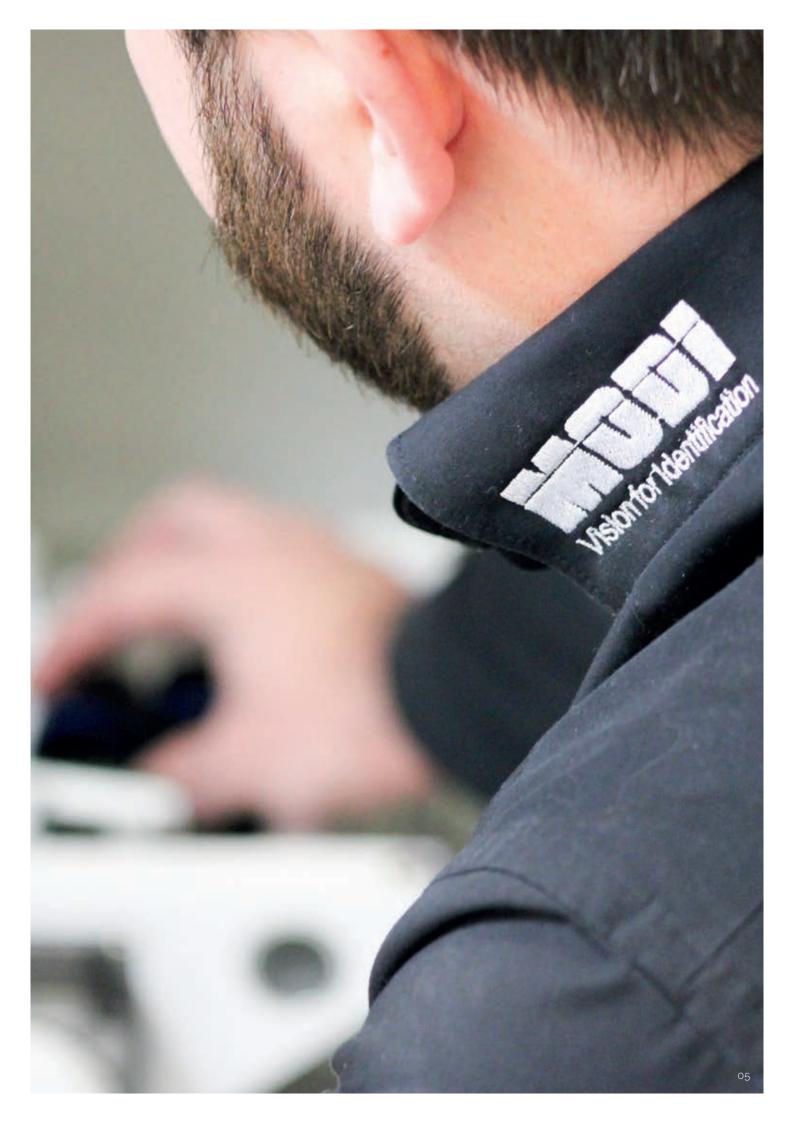www.moditrace.net

MODI MODULAR DIGITS
Inspection and ID Reading Systems

MODI GmbH has been a specialist for identification solutions and process optimization for more than 20 years. Modi's vision systems are mainly used in the production area for the electronics and pharmaceutical industries.

MODI is the right company for traceability solutions from Incoming goods area through the overall production. As an expert in image processing, MODI has developed different products over the past years in order to optimize the production lines efficiency with innovative and highly efficient technology.

The complete hardware and software development are done in the same place, so that gives a high flexibility and speed in terms of further developments and customer requirements.

In addition to the industrial business, MODI has also been a leading provider of biometric systems for commercial and government applications worldwide for several years.

LONG-TERM PARTNER OF MODI GMBH
Specialist for identification solutions and process optimization

MODI GmbH has been working and specialized in the field of industrial image processing for more than 20 years now. Through global projects and covering wide range of different customer requirements, a valuable business relationships were established. Continuously changes were done by us to fulfill our customers need, that has led us to design all our products modularly and independently.

Customizing our solutions based on each customer needs in the area of GoodScanners and traceability gave our products the ability to cover different use cases.

MODI GmbH can also be a strong partner. Through targeted consulting and workshops, we attempt to integrate our products into your production workflow in a flexible way. Our focus or goal is to achieve higher efficiency and safety within individual process steps.

Benefits of being experienced.

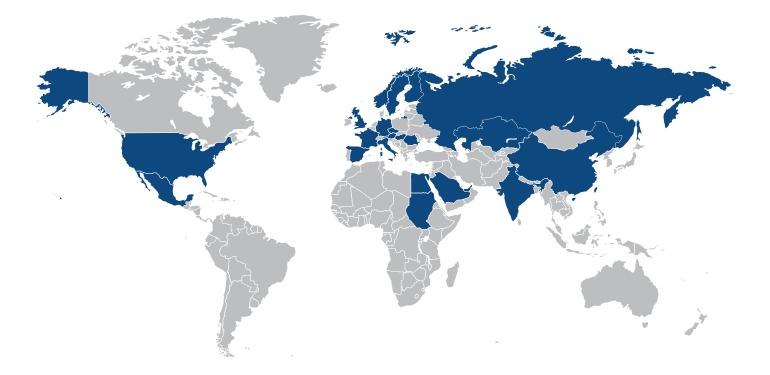Start today with 100% traceability.

MADE IN GERMANY
All MODI products are manufactured in Germany and are therefore subjected to high quality standards. Hardware and software development take place in-house. Speed without loss of quality is thus guaranteed.

Innovative engineering combined with the latest software developments stands for one of Modi's core capabilities.

As a specialist in traceability, for all the materials flow, we offer industrially unique products and solutions.

A friendly and experienced team in sales are always available to supports our clients and partners with all questions and problems.

INCOMING GOODS SCANNER
For Good markings of all kinds

AVOID MISPLACEMENTS

MAXIMUM TIME SAVINGS

NO COST INTENSIVES PROCESSES

INTEGRABLE INTO EXISTING SYSTEMS

CLEAR TRACEABLE

The fourth generation of the GoodScanner tables combines intelligent information processing from captured images and data administration into one building block of Industry 4.0.

Incoming GoodScanner is the most known product in the MODI products family. This is about ensuring that all materials are identified, at the right time, in the right place, in a defined quality and quantity.

With the MODI Incoming GoodScanner system, you take your production workflow to a new level, which is more efficient and safer.

CONVINCE BY!

COMPLETE TRACEABILITY IN THE CASE OF CUSTOMER AND QUALITY AUDITS!

In modern industry, components must be able to be traced throughout the entire production process. In this way, you ensure sustainably which product which batch / lot number / date codes of components have been installed when and where.

MAKE SURE THAT EACH ITEM MEETS YOUR SPECIFICATION!

During the first read process, manufacturer product information is being read and compared with a customer item main database or the ERP system. Only if the identity of the data is given, the system releases the article.

ELIMINATE MISPLACEMENT COSTS BY INCORRECTLY MARKED COMPONENTS!

The article release triggers the printing of the customer's own label (format, layout and barcode types are freely editable). A counter-read operation ensures that the printed label is readable and reliable with the manufacturer label.

SIMPLEST ERGONOMIC FLEXIBLE HANDLING!

The system removes all difficulties from the operator and exchange it with process reliability. The system can be ergonomically adapted to any operator via a stepless height adjustment.

UNBEATABLE PERFORMANCE!

Read and match label information in 1-2 seconds.

EVERYTHING FROM A SINGLE SOURCE!

Hardware and software development in the same facilities. We can react flexibly to customer requirements and tailor solutions.

REDUCE SHORTFALL COSTS!
ELIMINATE MISPLACEMENTS!
RELIEVE YOUR EMPLOYEES!
SPEED UP YOUR PROCESS!
GUARANTEE SECURITY!

HOW TO MAKE SURE THAT...

... THE ITEMS OF THE DELIVERY ARE COMPLETE?

... EACH ITEM IS CORRECTLY MARKED?

... THE ITEM COMPLIES WITH THE SPECIFICATIONS?

... TRACEABILITY IS ALSO GIVEN WITHIN A BATCH?

**...NAME CHANGES CAN BE NOTICED BY
THE MANUFACTURER WITHOUT PRIOR INFORMATION?**

**... THE FAULT OF THE COMPONENT MANUFACTURER HAS
LED TO STOP THE PRODUCTION LINE OR CUSTOMER COMPLAINT?**

... SUSPICIOUS / IN ERP BLOCKED GOOD BEFORE ENTERING PRODUCTION?

Each company designs the warehouse process flow individually, so it is of the utmost importance to analyze the procedures and to identify potential for improvement. As a specialist in the area of GoodScanner, we offer hardware and software-based solutions for customer-specific processes. Thus, the GoodScanners can be integrated into the processes and thus offers the best combination of cost-effectiveness and safety.

THE USAGE IN INCOMING GOODS PROCESSES
Error-free data acquisition – 100% Traceability

FAULTLESS AUTOMATIC DATAENTRY

MATCHING PROCESS MASTER DATA
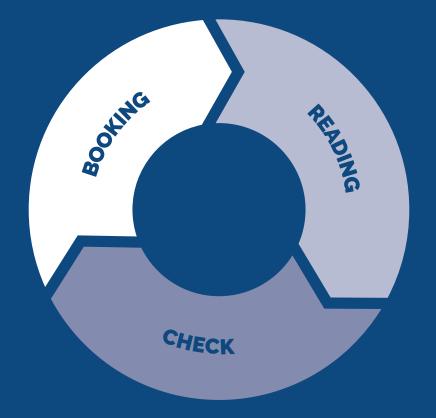PRODUCT NO | LED | DATE CODE | MSL | REJECTED BATCHES

BOOKING
TRACEABILITY | ERP | WAREHOUSE | PICK & PLACE

PRINTING UNIQUE ID LABEL

MODI
VISION FOR IDENTIFICATION

THE OPTIMAL INCOMINGSCANNER PROCESS
(read and data matching)

BOOKING · READING · CHECK

STEP 1:

The process begins with the registration of the materials before they are posted in the ERP software. Delivery note and/or ASN (advanced shipping notification) information is available. Optionally, the delivery note can be archived as a PDF. The required document scanner can be addressed directly from the MODI software.

STEP 2:

Now the operator starts scanning the delivered items in any order. For example, if a component reel is placed on the reading surface, the manufacturer's label is read out and registered in seconds.

Immediately, all captured content is compared to the article root database. If all information is correct and the item is released, a customer-owned label with a unique identification number will be issued. This is placed on the reel and checked in a counter-read operation. Here it is checked whether the label with the correct content is on the right material. Now the process for the operator is complete.

STEP 3:

When the expected quantity of ASN and packing slip is reached, the posting is triggered in the ERP software. In the background, all mechanisms that ensure traceability are running.

Extensive information is stored in the traceability database. All read information as well as image documents, posting and release information are uniquely assigned to a customer label.

MODI feeds your assembly and storage systems with all the necessary data in order to optimize all further processes here as well.

The unique ID created guarantees traceability throughout the entire process chain.

PART: RK73H2BTTD1502F
RK2B 15K   F 1%

MFC TKDA1TPFAB01
1804000641000TICP

3216 A 10uF
CL31A186KAHNNNE

SM06B-NSHSS-TB (LF)(SN)
1500

02-1294-1   13.12.2018   RoHS

949520-5950   4000   PCS.

949336-5770

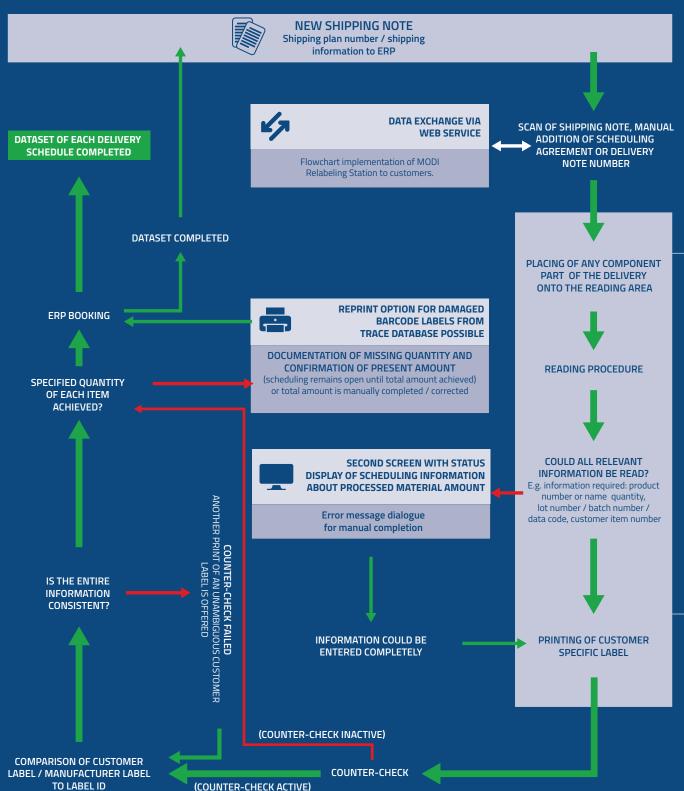CRA 0805 220R -20% 100ppm/K 5P
5000 Stück

EXAMPLE PROCESS DIAGRAM
WITH ERP CONNECTION VIA WEB-SERVICE

Thanks to many years of experience, MODI offers a wide range of standardized material workflow and interfaces for ERP, EMS, LVS or automatic assembly machines.

Nevertheless, as with ERP solutions used, many processes are individually structured depending on customer different needs.

For this reason, a cooperative workshop is often recommended in advance for complex processes in order to define a customer-specific workflow in detail. This process can then be implemented 1:1 by MODI software-technically and integrated into the existing LABELS operating software.
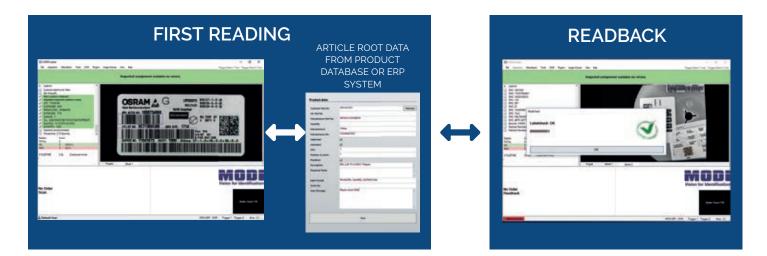
That way, each customer will achieve the optimal process throughput and the entire material registration can be carried out to the highest efficiency levels and error-free at only one workstation.

NEW SHIPPING NOTE
Shipping plan number / shipping information to ERP

DATA EXCHANGE VIA WEB SERVICE

Flowchart implementation of MODI Relabeling Station to customers.

SCAN OF SHIPPING NOTE, MANUAL ADDITION OF SCHEDULING AGREEMENT OR DELIVERY NOTE NUMBER

DATASET OF EACH DELIVERY SCHEDULE COMPLETED

DATASET COMPLETED

PLACING OF ANY COMPONENT PART OF THE DELIVERY ONTO THE READING AREA

REPRINT OPTION FOR DAMAGED BARCODE LABELS FROM TRACE DATABASE POSSIBLE

DOCUMENTATION OF MISSING QUANTITY AND CONFIRMATION OF PRESENT AMOUNT
(scheduling remains open until total amount achieved) or total amount is manually completed / corrected

ERP BOOKING

READING PROCEDURE

SPECIFIED QUANTITY OF EACH ITEM ACHIEVED?

SECOND SCREEN WITH STATUS DISPLAY OF SCHEDULING INFORMATION ABOUT PROCESSED MATERIAL AMOUNT

Error message dialogue for manual completion

COULD ALL RELEVANT INFORMATION BE READ?
E.g. information required: product number or name quantity, lot number / batch number / data code, customer item number

IS THE ENTIRE INFORMATION CONSISTENT?

COUNTER-CHECK FAILED
ANOTHER PRINT OF AN UNAMBIGUOUS CUSTOMER LABEL IS OFFERED

INFORMATION COULD BE ENTERED COMPLETELY

PRINTING OF CUSTOMER SPECIFIC LABEL

REPEAT STEP UNTIL DELIVERY IS PROCESSED

(COUNTER-CHECK INACTIVE)

COMPARISON OF CUSTOMER LABEL / MANUFACTURER LABEL TO LABEL ID

(COUNTER-CHECK ACTIVE)

COUNTER-CHECK

THE MODI WORKFLOW
(read and data matching)

Reading information is compared with the article root database, or via interface with the expected ERP data. The query contains all the necessary information to individually identify the item. If all data is consistent and the item is released, the check is successfully completed.

THE TECHNOLOGY

The heart of our system is the ADOMO camera technology. The overview camera determines the exact position of all labels located in the 380 x 380 mm reading area. The aspect camera looks at a deflection mirror that shows the exact position of each individual label. In this way, the camera resolution is completely focused only on the label to be read. They system is efficiently directed to this area only. This results in shortest cycle times and highest read accuracy.

DATA COLLECTION

When a label is detected by the camera, it goes through a filtering process. About 80% of all labels structure is detected on this step. This automatic detection is done via identifiers that precede the actual barcode content and uniquely identify it. If these are not available, it is possible to train the manufacturer's labels. This is done once, per manufacturer label type.

The other defined information fields can be assigned to individual barcodes. Furthermore, complex code contents in string format can also be broken down into individual information. In this way, all content can be safely assigned and recognized even without an identifier.
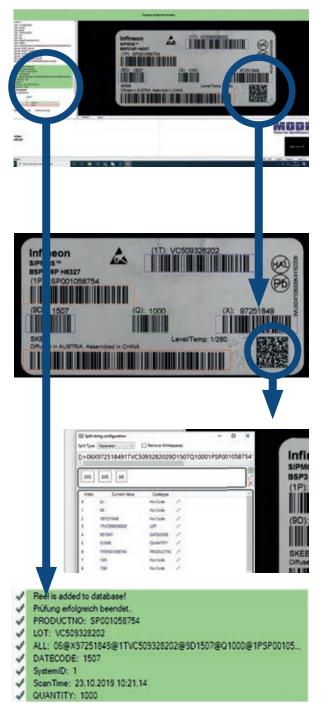
EXAMPLE PDF CODE

without Prefix / Identifier

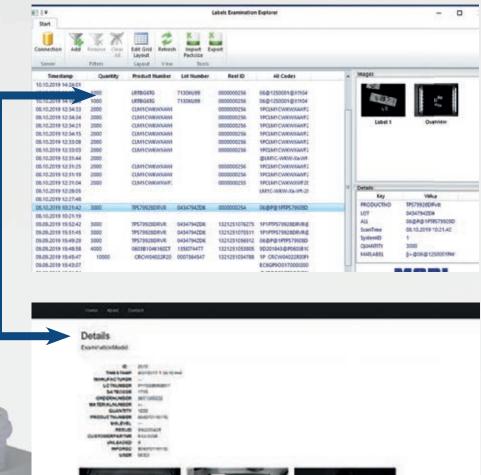# EXAMPLE 2D CODE

with Prefix / Identifier

Each identifier represents a specific content (e.g. 1P for manufacturer product number, 1T for trace code / lot number). The identifiers can be freely added and linked to specific content.

TRACEABILITY

All operations are archived in a traceability database. In addition to the required data such as product number and quantity (customer-specific), all other read content is stored here. In addition, each operation is documented in the image. Some important traceability information be a pictogram or in plain text on the material (e.g. MSL or lead-free markings).

ADD ONS | OCR
TEXT RECOGNITION

OCR is the English abbreviation of Optical Character Recognition and refers to the automated text recognition within printed objects. OCR is the technology that captures the printed text using an image file and makes it digitally editable again. This makes it easy to transfer scanned paper documents or digital images with printed text to the computer for use.

The MODI software uses this technology to match codes with plain text. This ensures that delivered components also correspond to the labels.

The OCR function makes it possible to read even encoded information correctly and safely. Thus, >99% of the labels on the market can be recorded. Automatic quality recognition reads well-printed content without manual inspection and is passed on to the subsequent systems.

In case of poorly printed information, the operator is given the opportunity to control, change, or confirm this information. A typical example is the label on which the information is needed for the certain identification, it has been printed in plain text without a barcode.

In many cases, the manual entry of the employee is required to register and process the material. The MODI OCR solution also processes plaintext information that automatically reads it and is passed on to subsequent systems and the trace database. Labels that previously needed a big effort to be detected or read, has now no problem to be handled safely.

ADD ONS | SOFTWARE FEATURES

REJECTED PRODUCTION BATCHES

If a faulty part batch has been delivered, it is important that this batch never enters the production again. A new database makes it possible for MODI to block those batches and reject them.

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LED BRIGHTNESS CLASS MAPPING

Regularly the binning information is given for LEDs in different coding. A new feature at MODI allows you to summarize this information and bundle it to the following system. Example Osram label with up to 5 different binning classes on one container:

Each binning class is divided into four components, each with four different prefixes. The LED Add-on makes it possible to read the individual components and compare them as a composite string with ERP article master data.

Furthermore, it is possible to attach the LED information to the read product number. This offers the convenience of preventing or stopping any changes to the existing item master data, as the software can process the data accordingly.

FULL TRACEABILITY DATABASE

All scan operations are stored in a traceability database. There you will find all scanned information as well as the corresponding images of the process. Wide possibilities are available for filtering, searching, and exporting. A powerful tool that saves a lot of time and money.

....

CONVERSION OF THE DATE CODE

The manufacturers of the components encrypt their production date on the reel. If you want to use this date for calculation, for example, the durability of the component, you must convert it into a „real" date. The label software now offers this feature.

The option to store a Date Code format for each article allows the read date to be automatically converted accordingly. This converted date can then be used in all secondary systems to ensure optimal use of the components. The same applies to other types of codes in date format.

ADVANCED USER MANAGEMENT

Scanning processes can now be carried out on an operator-by-user basis. Wide-ranging rights management enables critical processes to be handled only by authorized employees.

Up to six without restrictions definable rights can also be customized and added. All operations can be logged. In this way, scanning operations and other operational activities are assigned to individual operators.

PICK AND PLACE INTERFACES

MODI offers interfaces to the common component assembly units. This allows the material, including all important traceability information, to be passed directly to the processing machines. By assigning a unique ID for each scanned material it can be used through the full production process in an easy way. All information such as HTN, quantity, lot, date code, etc. is known to subsequent system.

CUSTOMER-SPECIFIC CONNECTION (ERP)

The labels software can be connected to a wide range of ERP, trace, and storage systems. Thanks to customer-specific processes, the Incoming GoodScanner can be integrated deeply into the processes and thus offers the best combination of cost-effectiveness and safety.

INDIVIDUAL SPLITTING OPTIONS (REGULAR PHRASE)

Barcodes can now be more individually disassembled. Complex code content can now be broken down even more easily with the new splitting option.

- Remove unwanted characters
- Normalize content
- Filter out based on regular phrases
- Merging information

There are no more limitations

PICTOGRAM RECOGNITION

Capture data that are only available as image information!

With the pictogram recognition the images or logos can be converted into machine-usable texts. Individual settings option brings a reliable results.

TOP SCAN

The MODI Incoming GoodScanner can be upgraded with a top unit including ADOMO® technology, as some components must be scanned from two sides due to packaging.

The reel no longer needs to be rotated. This also makes it much easier to stick or the readback printed labels!
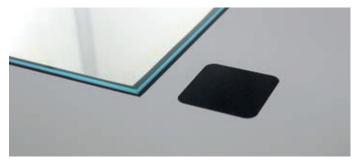
LABELSMOBILE

With a tablet device and a mobile version of the labels software, you are able to handle each kind of packaging. Bulky and heavy material excludes handling at the incoming goods scanner. That's why MODI offers the ability to capture product labels with a mobile solution.

The mobile device sends the captured image directly to the GoodScanner. The feedback is provided directly on the tablet's display.

The connection to a mobile printer is also possible.
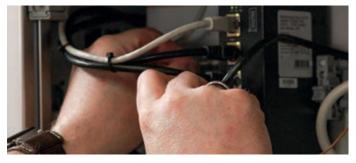
INTEGRATION OF TOUCH PANELS

With the optional installation of touchpads in the worktop, the trigger elements lay within the natural movement of the operator.

The customer decides whether the touchpad is mounted to the left or right of the reading surface. However, MODI recommends two touchpads for several operators, so that the scanner can be operated by both left-handed and right-handed users.
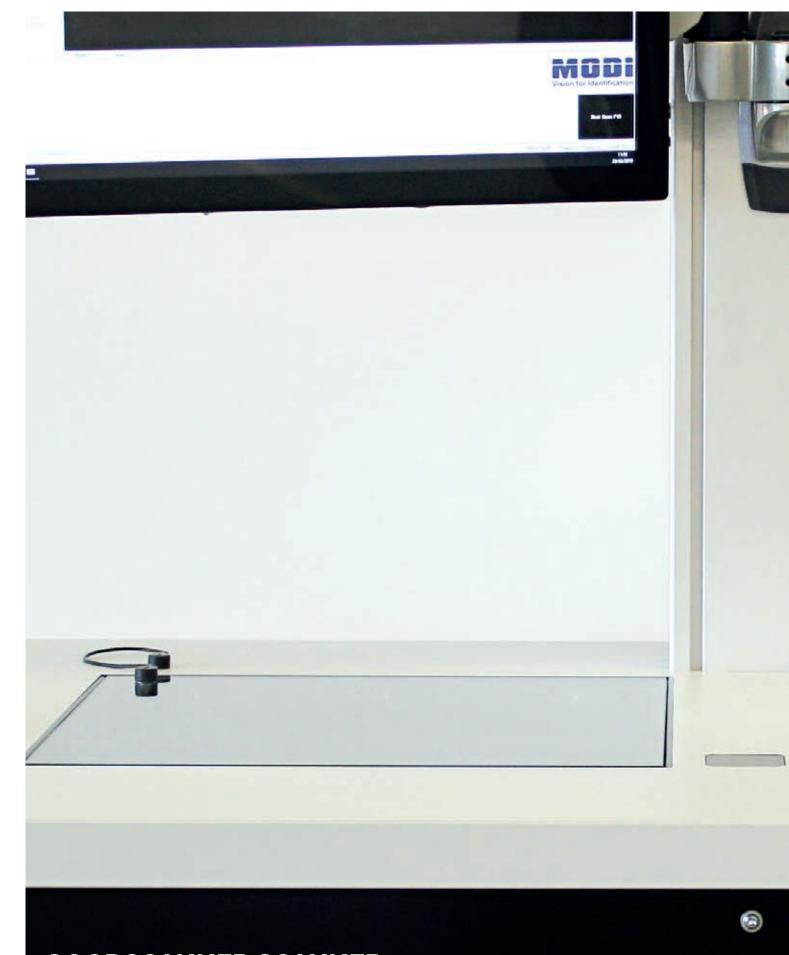
INDIVIDUAL RETROFIT OPTIONS

MODI offers individually customized solutions. In addition to the standard products, MODI can offer individual solutions on both the software and the hardware side.

If you have any individual enquiries, please feel free to contact us directly:

info@moditrace.net

GOODSCANNER SCANNER 4.0
MAXIMUM MATERIAL CHECK

INCOMINGSCANNER | GOODSCANNER 4.0
MAXIMUM MATERIAL CHECK

The fourth generation of the GoodScanner table combines intelligent information processing from captured images and data administration into a basic building block of Industry 4.0.

Scanning of incoming materials is the most popular use case. This is about ensuring that all materials are identified, at the right time, in the right place, in a defined quality and quantity.

From a quality point of view, the first step is to identify the materials. The most reliable information is provided by the manufacturer's label on the packaging units. The packaging unit is placed with the manufacturer's label page down on the glass reading surface of the scanner. Now the user will start the reading.

INCOMINGSCANNER | GOODSCANNER SCANNER 4.0
MAXIMUM MATERIAL CHECK

In the first step, the patented ADOMO camera technology mechanically decouples the acquisition of a detailed image from an area to be monitored. This is achieved by using two cameras placed below the table. An overview camera with a resolution of two megapixels looks through a 480 x 480 mm illuminated glass reading surface. After a single training (once per label pattern), this camera can detect label structures and forward the position of those labels to the control of the ADOMO unit. The second camera looks at a mirror unit that can be swiveled in two axes. This mirror unit deflects the camera image to the area of the label. Afterwards, a detailed image of the dimension 170 x 125 mm is taken in five-megapixel resolution.

On this image, Modi labels software can collect information based on different criteria. Depending on the combination of the selected features, the system can read and evaluate 1D, 2D codes as well as patterns, pictograms, and plain text. All information can be made available to subsequent processes in a defined form. A unique label can be printed by triggering a printing process. All recorded information and images are stored in a database, also accessible via the ID from other systems, but not changeable.

INCOMINGSCANNER | ROBO WES
FULLY AUTOMATED ROBOT UNIT

In the ROBO WES, MODI uses the latest robot technology. The robot arm mounted on the table is designed to replace all manual processes quickly and reliably.

INCREASED EFFICIENCY AND SAFETY THROUGH AUTOMATION.

INCOMINGSCANNER | ROBO WES
FULLY AUTOMATED ROBOT UNIT

MODI ROBOT CART VARIANT

This case is a combination of manual and automated workstation. In the automated version, a trolley is equipped with component reels by the employee and driven into the lift station. From here, automated processing by the robot takes place. (reading, printing, pasting, sorting away)

In the standard version, it is sorted into a second trolley. Alternatively, boxes can be filled in a defined packing order. A major advantage is the possibility to use this station as a manual workstation. Although The robot can be moved to a basic position outside the working area.

Driven by the needs of our customers to automate the process of the material flow, MODI developed a robot-based variant of the GoodScanner.

Thanks to the same technology that was mentioned previously, this solution remains completely compatible with the software components and interfaces that is used so far.

Labels already trained at the manual workstation can also be used at the automated station without exception. An intelligent lift system lifts the reels into reading position. Thus, an ideal distance to the camera is always guaranteed. During the automatically triggered scanning process, all labels are securely recorded by a special camera that is installed from above, and the information is evaluated.

After a successful printing of the custom Unique ID label, this is automatically applied by the robot on the reel.

The component reel is then transported in storage boxes or sets in specially developed transport racks by another lift system. The connection to self-driven loading robots (AGV) is possible.

Various interfaces allow easy integration into existing processes. The modular design allows a space-saving installation individually adapted to the spatial possibilities.

INCOMINGSCANNER | ROBO WES
FULLY AUTOMATED ROBOT UNIT

LET US GIVE YOU INDIVIDUAL ADVICE.

**WE ARE HAPPY TO DEVELOP THE RIGHT CONCEPT WITH YOU TO
CAPTURE YOUR ELECTRONIC COMPONENTS SAFELY AND QUICKLY.**

AVOID MISPLACEMENT WITH THE HELP OF STATE-OF-THE-ART TECHNOLOGY!

100% TRACEABILITY WITH MODI AS PARTNER!

VOLLAUTOMATISIERTE VARIANTE

In this case, we offer the highest level of automation. So-called „Reel Racks" serve as a transport unit for a stack with component reels. This is compatible with common self-driven loading robots. The material feed as well as the collection can thus be carried out fully automatically.

The racks are transported to the processing position by a conveyor. A double lift system lifts the component reels into reading position and securely stacks the finished component reels into a free transport unit.

INCOMINGSCANNER | XRAY
THE X-RAY COUNTING SYSTEM

The high demand to be able to process the material more and more automatically, has brought Modi into the situation of expanding its product portfolio. Whether it is a return from production or the complex situation on the component procurement market. wherever it is a matter of reducing component sizing, detecting shortage, or counting components. it is a necessary device.

A X-ray counting system in combination with the MODI identification and traceability competence offers the right solution. With the X-ray scanner it is possible to count components on containers without mechanical influence. However, the counted quantity itself is worthless without reference to material information.

INCOMINGSCANNER | XRAY
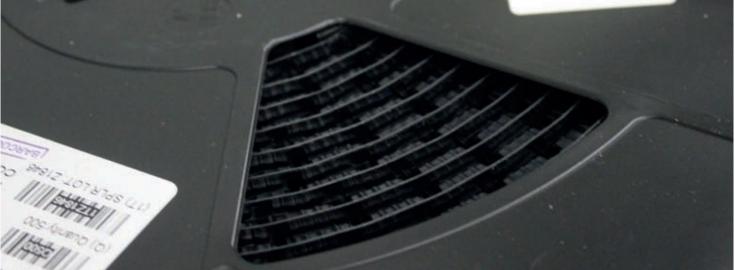## THE X-RAY COUNTING SYSTEM

The most benefit is guaranteed, if the live matching of read and scheduled quantities will be verified by a precise counting process. So, we realized this with a combination of reading the Manufacturer Label quantities and added a counting procedure. This can also take place with all trace applicable interfaces. An example is the direct booking of potential under deliveries in the ERP Software. This allows it to regulate in the earliest step of the process chain. Another application would be the removing and re-storage of a component reel from the pick and place machine. This is about recognizing the failure of deployment though production and removing the material. After removing the reel from the machine, it will be rescanned and counted. Another label with the actual quantity is printed or the quantity is digitally booked by the system according to the unique ID. In this way, the affected process key figures can be specified based on the periodical.

The product solution placed on the market is the Viscount XRH count connected to the top scan unit of the MODI WES V4 system. The XRH count has an automatically open and closing drawer. Above this drawer, the MODI WES Top Scan assumes its core competence. The component reel is placed in the drawer and the scan starts. Once all readable data is collected and the material identified the drawer is closing and the counting process begins. The process is finished when the drawer is opened. Optionally, a Unique ID label can be printed with the actual quantity. The product is compatible with all software add-ons.
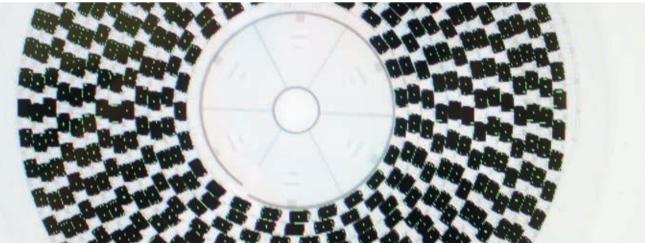
It is also interesting for MODI existing customers that all existing interfaces can be operated.

INSPECTION SYSTEMS | IBOX BY MODI
Traceability Inline

The MODI Ibox is the link between a simple code scanner and the traceability system. Turn any conveyor belt into an intelligent process system. With the integrated SMEMA interfaces, the Ibox can be installed between two machines. An adjustment of the respective system control is not necessary. The board handover serves as a trigger for the code reading process. Any scanner can be easily connected via RS232. The read code contents are sent to the traceability system via TCP/IP. Here the check is carried out: Can the current board go through the next process step?

If the traceability system is giving its clearance, the SMEMA interfaces will open by the Ibox and the board can enter the following machine. In case of negative feedback, a corresponding error message can be displayed directly on the display of the Ibox.

Waiting for Board   FA:0 FC:0
                                     TA:0 TC:0

MODI

INSPECTION SYSTEMS | IBOX VON MODI
Traceability Inline

IBOX SERVER SOFTWARE

The Ibox server's software is installed on the line control computer and can control any number of Iboxes. The Iboxes are connected to the software via network. A graphical interface gives the operator the possibility to monitor all processes any time. Through individual scripts, each Ibox can go through a process-specific workflow.

IBOX STATE CHART NETWORK COMMUNICATION

CONNECTION TO FOLLOW-UP SYSTEMS

The Ibox can pass on the read code contents directly to subsequent machines. An installation of a code scanner in the respective process system is therefore not mandatory. The connection can be realized via RS232 or network.
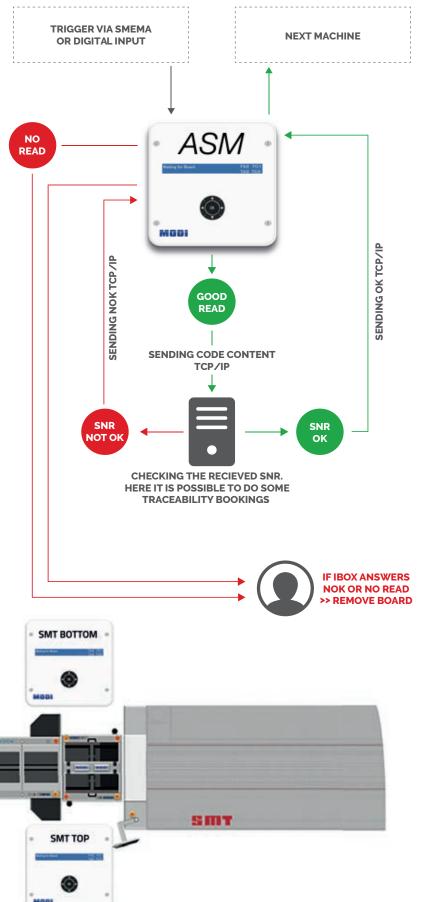
TRACEABILITY WORKSHOPS

Each production has its own individualities. Each traceability system has specific interfaces. In different workshops, we advise them in order to optimally integrate the Ibox into their existing processes.

Contact us and make an appointment.

TRIGGER VIA SMEMA OR DIGITAL INPUT

NEXT MACHINE

NO READ

ASM

SENDING NOK TCP/IP

SENDING OK TCP/IP

GOOD READ

SENDING CODE CONTENT TCP/IP

SNR NOT OK

SNR OK

CHECKING THE RECIEVED SNR. HERE IT IS POSSIBLE TO DO SOME TRACEABILITY BOOKINGS

IF IBOX ANSWERS NOK OR NO READ >> REMOVE BOARD

SMT BOTTOM

SMT TOP

SMT

MODI INLINE CODE READING AND INSPECTION SYSTEMS

MODI supplies optical reading and inspection systems to ensure the traceability of any production processes. With the patented ADOMO technology, the field of view of a camera can be diverted to different positions with only one camera.

Individually customized to the needs of each customer, MODI supplies either a complete processing system including board conveyor technology, or detached camera systems with SMEMA interfaces for easy integration on existing board handling equipment.

SCANSTATION ADODAT 4000

The full-featured inspection cell from MODI comes with state-of-the-art camera technology, proven board handling, and modern design. The basis is a transport conveyor from Nutek. A partnership that has grown over many years has allowed a seamless combination of both systems. Benefits of working for many years with experienced companies in the fields of optical inspections and board handling.

MODI TOPSCAN UNIT

Detached from the actual board handling equipment, MODI developed a camera system for optical inspection and code reading tasks. Thanks to integrated digital inputs and outputs as well as its own SMEMA interface, the TopScan unit can be installed over any conveyor belt. Turn your simple transport conveyor into a full-fledged optical inspection system.

Interference with existing controllers is not required due to the standardized interfaces.

FLEXIBLE CONSTRUCTION

Thanks to the modular technology, the system is individually customized for each project. Camera resolution, lighting, and the complete test cell setup is determined based on a feasibility study.

SOFTWARE VCSP (VISION CONTROL SERVER PACKAGE)

A powerful software package is used to control our inspection and code reading systems. The modular software offers the possibility to program individual testing tasks.

An integrated graphical workflow editor makes it possible to edit machine sequences quickly and easily. With individual training courses around your inspection task, you quickly become an expert in machine vision.

INTERFACES:

Hardware-based interfaces:
SMEMA | Digital inputs and outputs | RS232 | TCP / IP

SOFTWARE-BASED INTERFACES:

Socket communication to subsystems | Web services databases | File transfer | OPC UA

PRODUCT-SPECIFIC FEASIBILITIES

- You have a test task, but you are not sure which camera system would be the right one?
- Which lighting should be chosen?
- What else do I have to consider?

We are happy to answer all these questions!

With sample parts we offer free feasibility studies. This ensures that all necessary parameters are already fixed at the start of the project.

CONTACT US!

TECHNIK | ADOMO®
(ADVANCED OPTICAL MODULATION TECHNOLOGY)
THE HEART OF THE MODI TECHNOLOGY

The ADOMO® technology is the heart of the MODI Systems. It uses two cameras. First one is detecting labels on the full reading area. With a deflecting motorized mirror, a second camera captures the object directly.
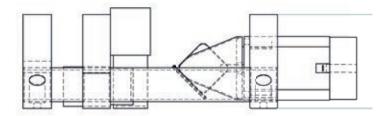
The fast movement of the mirror occurs on both the horizontal and vertical axes. The field of view of the camera can be changed very quickly and precisely in all directions.

UNIQUE CAMERA COMPOSITE

The patented ADOMO ® technology is used in the industry for complete and detailed recognition of barcodes or labels.

In addition to the high-resolution detail camera, the additional overview camera can detect the exact position of all labels located in the 380 x 380 mm reading area. The coordinates are sent directly to the mirror motion control and the deflection mirrors are adjusted accordingly so that the detail camera can capture the label quickly and accurately. In this way, the camera resolution is completely focused only on the label to be read.

The camera resolution is efficiently directed to this area only. This results in shortest cycle times and highest read accuracy.

SPEED THROUGH MIRROR TECHNOLOGY

MODI's maintenance-free high-speed mirror deflection system allows mirror positions to be changed within 20 ms. This allows the detail camera to capture up to 30 high-resolution images, regardless of its position. This guarantees a high working speed and shorter cycle times.

In difference, here is the idea of other providers, which align the camera itself with the corresponding object by means of a deflection unit. However, this technology requires a more exposed construct. This certainly leads to a high wear of the individual parts at a slower alignment speed.

The ADOMO ® technology has been the fastest and most precise system on the relabeling market for years.

MODI
VISION FOR IDENTIFICATION