

/ Comscale4 Software



Central Data Management for Inspection Systems

/ Comscale4

Across all sites and in real time

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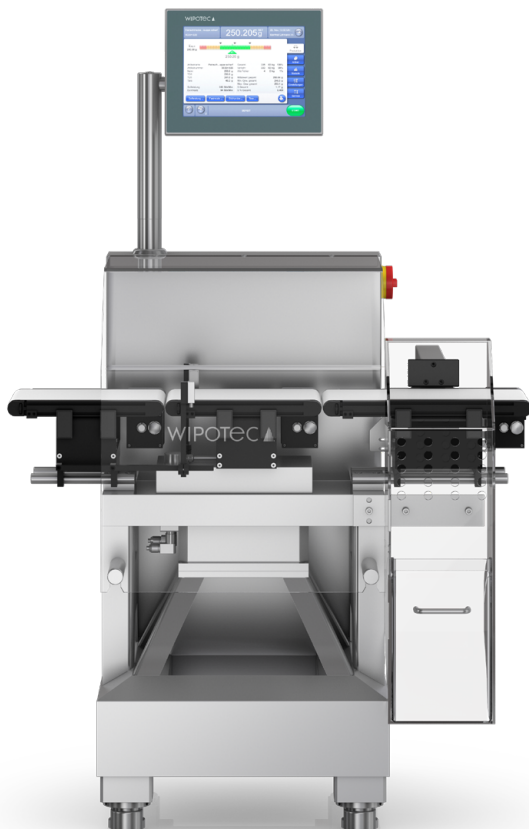
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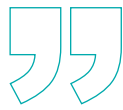
Expandable for any application case

16 Wipotec

All skills under one roof



HC-A



*The Ostfriesische
Tee Gesellschaft
has been a Wipotec customer
for more than 25 years now,
almost from the very beginning.
With Comscale, the central data
management software in our
production, we now network
over a hundred weighing
systems in four branches in
Germany and France.
Wipotec has been a
good partner to us
over the years and
we have always been
impressed with the
hardware and
software solutions
from Kaiserslautern.*

Björn Herrmann
Technical Manager
Ostfriesische Tee Gesellschaft, Seevetal

/What is Comscale4?

Comscale4 networks and gives you access to all your inspection systems – no matter where they are, across all sites and in real time. Comscale4 allows you to monitor your production from the point of view of the inspection systems by collecting all data arising during your inspections, generating reports and statistics, compiling analyses and archiving all your inspection system data for you. It tracks data and events and links them to an alarm system. Comscale4 provides you with information for optimised and effective production.

What Comscale4 offers

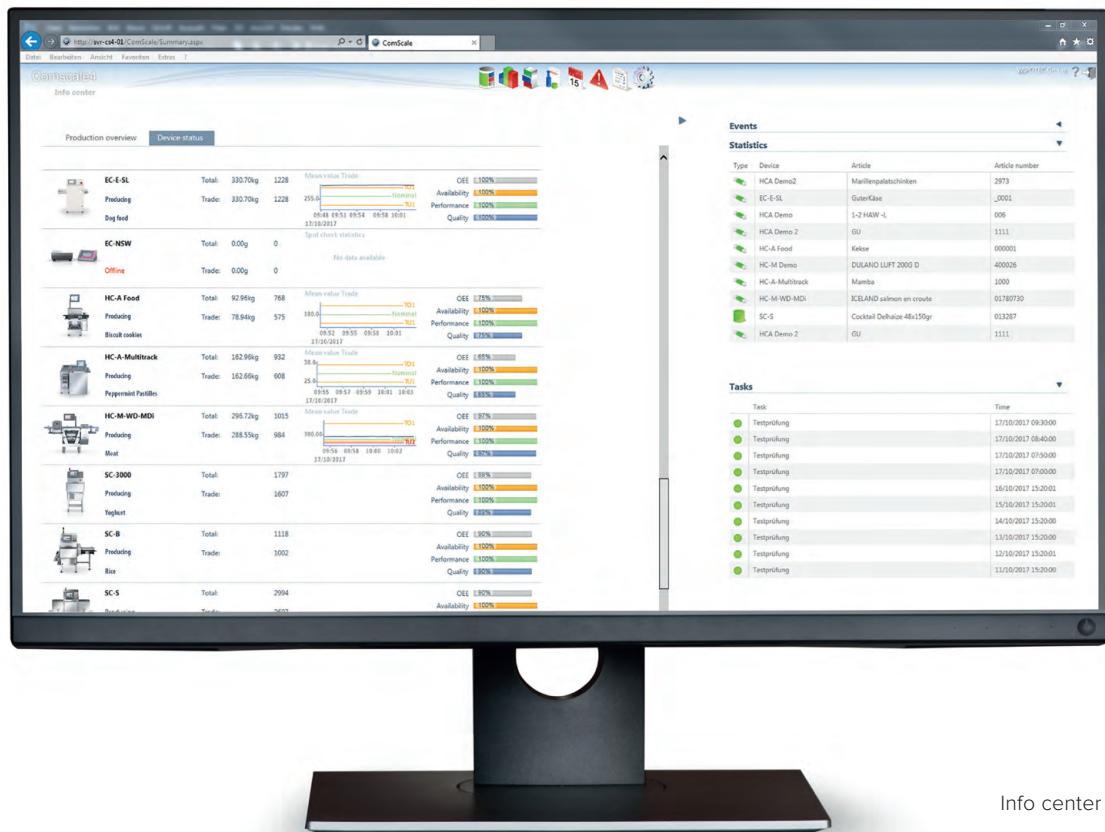
Comscale4 compiles all the current information you need for maximum production efficiency. It supports quality data management by generating and providing configurable standard reports. This enables you to quickly identify bottlenecks and the effects of quality problems based on reports about production figures, waste, machine utilisation and product quality.



/ Online Monitoring for inspection systems

Every quality-assured product, whether raw goods, intermediate or end product, packaged or unpackaged, must be checked at some point. These tasks are performed by inspection systems. Because of these tests, information is obtained that ultimately determines how effectively the production in this process has been overall.

The entire history of past production can be viewed from the quality aspect point of view by recording all the relevant quality data of your inspection systems. As a result, it is possible to set production parameters for the future, which enable optimum production. Data processing is handled by Comscale4 online monitoring.



Info center in Comscale4

Comscale4 Online Monitoring

Online monitoring records and displays the most important production data for the connected production lines in real time. To do this, Comscale4 displays all the local units and machines connected to the system for which the currently logged on user is enabled.

For every machine, Comscale4 can call up a detailed display of the machine's current production on request or display quality or statistical data in numerical and graphic form.

This also applies to the product data history. It is possible to track and trace the counter readings for rejected products online according to system, production line or site. There is no longer any need for time-consuming on-site checks on production lines.

The X-ray images of non-compliant products are also stored in the Comscale4 database.

/Optimise beyond all limits

Optimum production means producing products that are 100% correct. On the way to this optimum, you need as much information as possible about your production process. To produce as effectively as possible – beyond the limits of your lines. Even beyond the boundaries of your sites. Whenever it's a case of quality assurance processes, Comscale4 takes over.

Comscale4 networks inspection systems

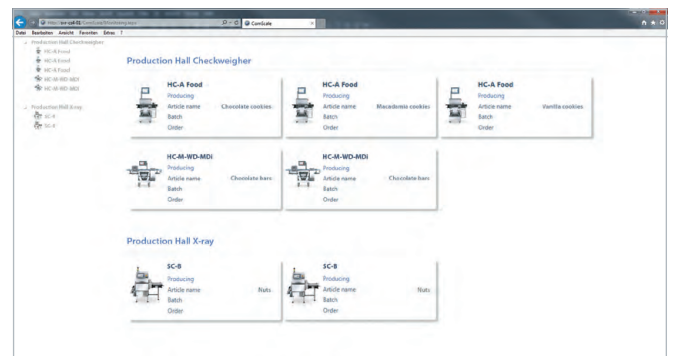
Production monitoring requires access to data to evaluate the efficiency of production lines in real time. To achieve this, Comscale4 networks product inspection equipment such as Wipotec checkweighers and X-ray systems, metal detectors and optical inspection systems.

Comscale4 is the software, which gathers all the information about these automated inspection and decision processes. The software makes the information available to you and upon request can evaluate and analyze the information. With Comscale4, it is possible to control product inspection processes across all sites from a central location. The time required compared to manual data entry is considerably reduced, manual errors are excluded.

Checkweighers for example

Wipotec checkweighers not only provide complete control and documentation of the prepackages in accordance with the Prepackage Directive, they also prevent overfilling in future and thus save valuable raw materials and packaging materials.

Comscale4 quickly compiles all the information, which you need for maximum efficiency production. Comscale4 supports quality data management by generating and providing configurable standard reports. It shortens your setup times for product changes due to the decentralised adjustment of product inspection equipment.



Machine overview in Comscale4

Wipotec Portfolio: The checkweigher family



Throughput and Range of options

E Essential

EC-E simple applications, optimum price-performance ratio

M Medium

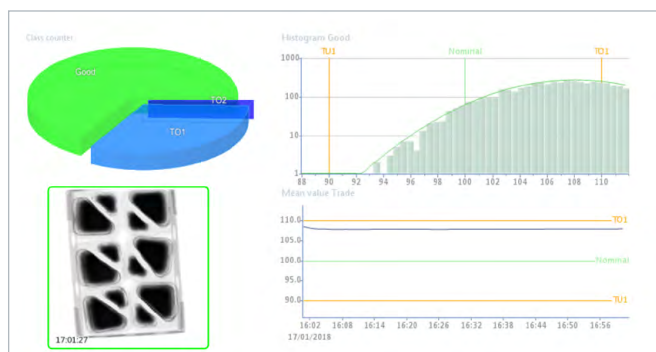
HC-M high performance in the medium application area

A Avantgarde

HC-A innovative pioneer for the most extensive applications

/Support for quality assurance

Employees in quality assurance have real-time access to inspection and process data. Comscale4 thus supports proof that the products comply with industrial standards, internal company regulations and legal requirements.



Display of X-ray images for later evaluations in quality assurance

Data pool for quality assurance

All integrated control and inspection stations are monitored, regardless of location or position in the production process. Operator interventions, such as adjusting product inspection systems, are logged and time-stamped.

Production, final or batch statistics are stored, X-ray images of rejected products can be stored for planned corrective and preventive actions. All data and reports can be exported in Excel, PDF, XML and CSV formats for later evaluations in quality assurance.

User-friendly operating concept

Comscale4 is a powerful networking and statistics program which is easy to operate and predictable despite complex functions. The data necessary for decision-making can be put together extremely flexibly, thus enabling both informative and multi-layered evaluation of process-relevant information.

The user interface allows you to visualise your data in the form of meaningful charts and tables in dynamic dashboards and reports. This data can be accessed anytime and from anywhere. Comscale4 offers permanent access to your most important key figures and decision-relevant data.

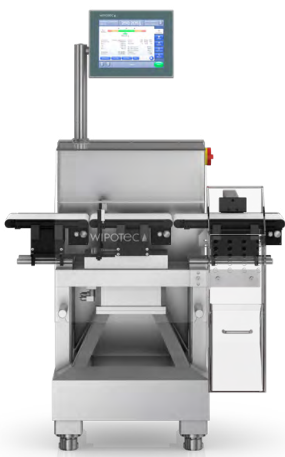


Easy networking with Comscale4:
Wipotec X-ray inspection system

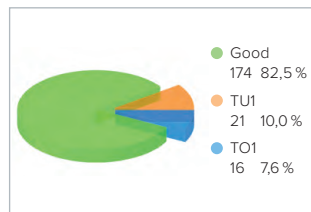
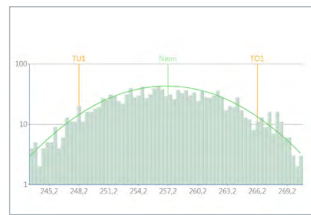
/ Supported inspection systems and their functionalities

Comscale4 networks inspection systems: Checkweighers and X-ray systems, metal detectors, optical inspection systems, static scales and density scanners.

Different functionalities are supported depending on the type of each inspection system. Each type of device has its own device server.



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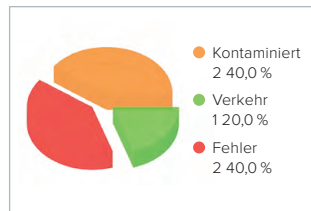
Checkweigher pie chart

Checkweighers and all about Comscale4 networked systems

Comscale4 supports the general overview and view of all lines, the display and storage of all production data and the machine and system status (automatic), in addition to reporting with standard templates.



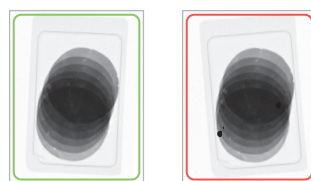
SC-E



X-ray pie chart

X-ray systems

Comscale4 supports the display and storage of all production data and the machine status, the transmission of statistical data to Comscale4 as well as transmission of the X-ray images. Weigh-and-Ray Systems, i.e. systems combining X-ray technology and checkweighers, are also supported. In addition, Comscale4 provides separate statistics for results of X-ray inspection and weight checking.



10:59:31

11:06:29

Contaminated



HC-M-NSW

Static scales

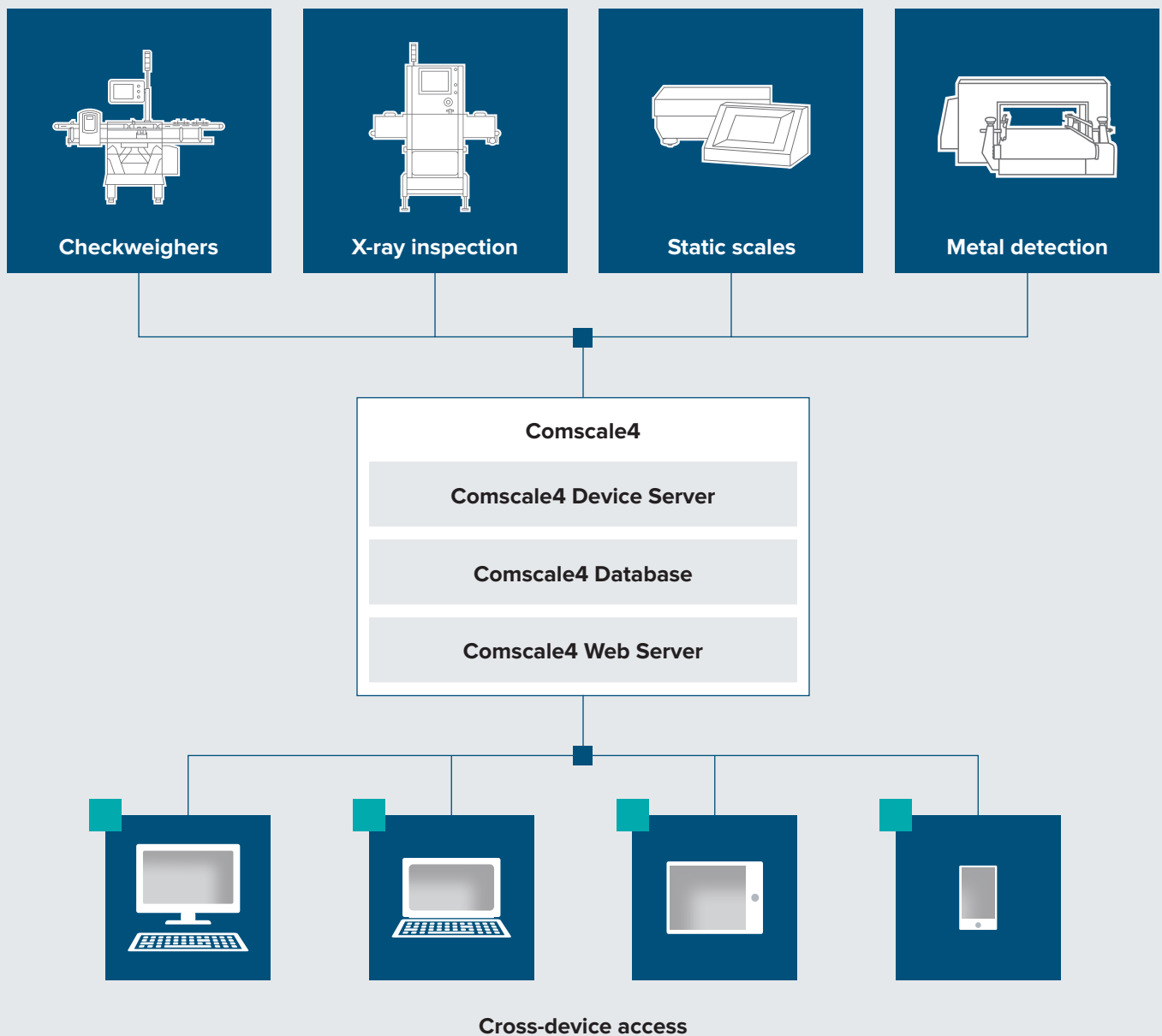
Static scales are used to manually record individual weights, e.g. for random sampling. A connected handheld scanner can also be used to jointly record barcode information, e.g. to activate the checking job. Weighing is triggered manually or by automatic standstill detection. Results are logged and the data are sent to Comscale4.

/The foundation:

Powerful technology

Comscale4 is a multi-user solution based on the concept of floating licences. A central service manages the user licences and ensures access to Comscale4 for authorised users. A Microsoft SQL database is required to operate Comscale4.

Comscale4 and its graphical, interactive user interface can be used on all browser-enabled devices including smartphones and tablets. Program operation is optimised for Internet Explorer.



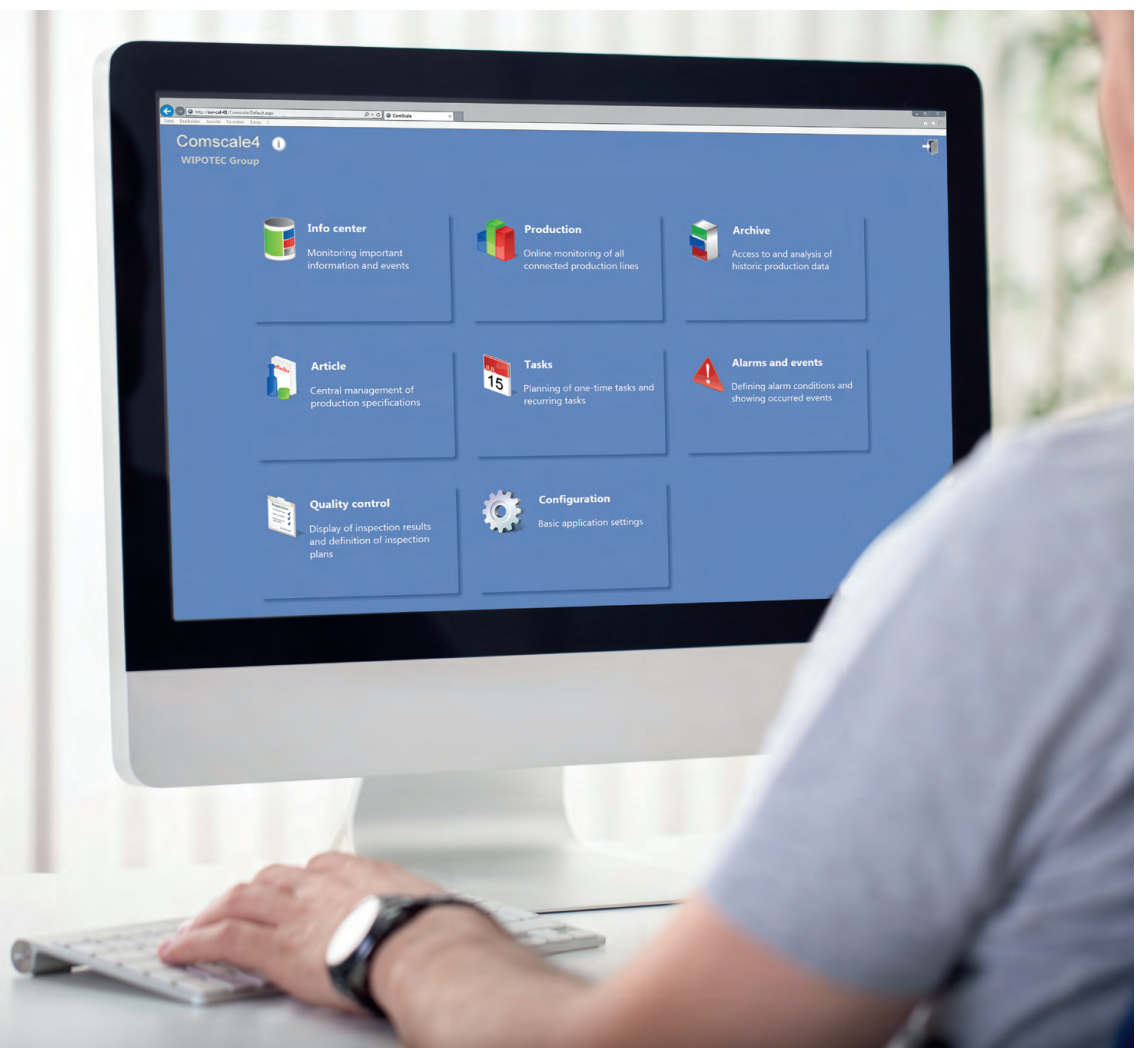
/ Program entry and software modules

Central program access provides a view of all the modules activated for the relevant user. The graphical user interface stands for easy-to-learn operation with the shortest routes to the desired functionality in each case.

The permanently visible status and navigation bar ensures orientation at all times. Information areas can be expanded with the help of symbol buttons to achieve a greater wealth of detail without losing clarity. Comscale4 has the Info center, Production, Archive, Reporting and Admin modules from the Start version upwards.

The Standard and Professional versions have an Article Management module and, depending on the connected machine's range of functions, have write access to it.

All Comscale4 data and functions can be accessed via browser-enabled devices without having to install additional software on the clients. Report templates are stored system-wide for standardised reports. The Alarms and Test Schedule options are included from the Professional version up.



Main screen: Provides central access to all available modules.



Info center

Online monitoring of current production: In the Info center, Comscale4 provides a compilation of the most important data and events. This includes the production overview and

the machine status in the form of a live view, enabling immediate response since Comscale4 has online access to the machines. The overall view in the Info center provides an overview of the overall equipment effectiveness (OEE) of the individual machines as a measure of a plant's added value. For this, Comscale4 provides a lot of real-time data and allows proactive management to maximise operating times.

The Info center provides different ranges of information depending on the authorisation and hierarchy level: A production manager sees his plant at a glance in the Info center and is notified about which tasks the operators still have to carry out. Managers with cross-site responsibilities can display on a "plant-by-plant" basis which lines are running and producing, how long they have been producing and how many products have been produced and in what quality.

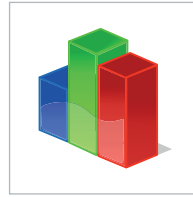


Data archiving

Data are archived so that it is possible to compare production data from the past with each other and with current actual performances.

There is no longer any need for the ticket printers, which used to be necessary for this. The Comscale4 archive function stores all previously collected statistics and files of all machines in the entire system. Statistics results can be pinpointed precisely with powerful query criteria. Long-term access to the archives reduces overall paper consumption and permits a range of views for which data can be structured differently.

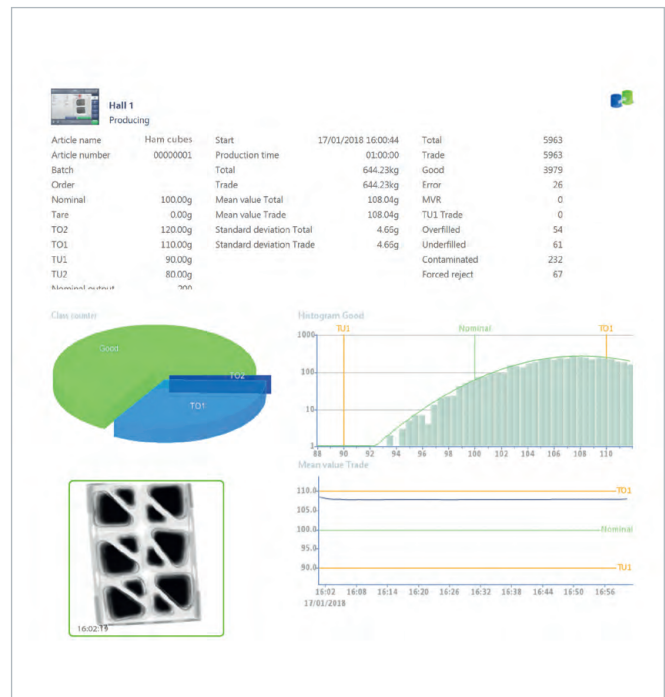
Various operators (greater than/less than, equal/unequal, contains/does not contain, starts with/ends) are available to filter data before output. It is also possible to filter according to ejection reasons (contaminated, underfilled, overfilled, defective, shape/angle error, clip error, product broken, etc.). Statistics can be summarised cumulatively. There are several options for exporting them so that the data can be processed in other systems (e.g. xml, csv).



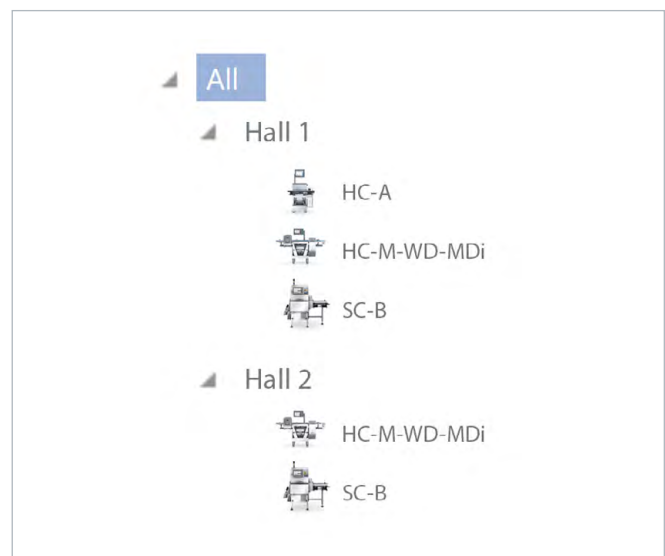
Production

In Comscale4, you can map your company's production structure in the form of local units (e.g. production site, production hall, production line) in a multi-dimensional

hierarchy. Comscale4 supplies you with a reality-based illustration of your company in conjunction with decision-relevant data regarding the production performance of your lines. The overviews provide insight into all the machine's production details and settings. X-ray images of inspected products are also displayed here.



Production details of a machine with information on the mean, standard deviation and sorting limits.



Production structure in a multi-dimensional hierarchy.

Software modules



Article Management

This is where the central management of production specifications is located. Only one central article master has to be managed. The articles can be assigned their own product photos and a number of article parameters. Among other things, Comscale4 offers the management of production-typical master data such as limit values for overweight/underweight articles, length of the article in the conveying direction and production performance for the article. Inspection systems always access the current data in the article management.



Tasks

This module assists production managers in particular to manage employee tasks on production lines. The options for planning and production support can be defined via unique or recurring tasks and the time of performance can be specified. Examples of task types: Stopping the machine, notification (e-mail or message to the machine), sampling, product change, statistics check (e.g. all 1,000 products), triggering of time-based statistics and attribute checking (Enterprise version).

The screenshot displays the 'Article Management' interface. At the top, there is a small icon of a bottle and container. Below it, the 'Name' field is set to 'Article 1' and the 'Number' field is '00000001'. The 'GTIN' and 'Family' fields are empty, with 'test' written below them. The interface is divided into several sections:

- Weighing:** A table of sorting limits with columns for 'FPV' (set to 'FPV'), 'Nominal', 'Tare', 'TO2', 'TO1', 'TU1', 'TU2', 'Nominal output', 'Package length', 'Spotcheck Range', and 'Spotcheck Time'. Values include 100.00 g, 0.00 g, 120.00 g, 110.00 g, 90.00 g, 80.00 g, 200, 100, 0, and 0 respectively.
- Production parameters:** Fields for 'Target PLW' (0.00 g), 'Tare tolerance' (0.00 g), 'Empty package limit' (0.00 g), 'BBD offset' (0), and 'Price' (0). There are also checkboxes for 'Enabled to use in production' (checked), 'Lock article', 'Mean value requirement', 'FPV/AWC TU1 percent regulation', and 'FPV sorting limits'.
- Device parameters:** A section with a left-pointing arrow.
- Tare components:** A section with a left-pointing arrow.

Article management with weighing parameters and sorting limits as well as production specifications.

The screenshot shows the 'Statistics check' configuration interface. The title 'Statistics check' is in a blue box. The configuration includes:

- Name:** 'Production hall 1: mean value check'
- Active:** A green dot indicating the task is active.
- Statistics:** A dropdown menu set to 'Intermediate statistics'.
- Inspection plan:** A dropdown menu set to 'Schedule'.
- Filter:** 'Type is equal to 'Intermediate statistics'' with an 'Edit' button.
- Device / Location:** A dropdown menu set to 'Highspeed'.
- Article / Family:** A dropdown menu set to '00000001 Article 1'.
- User / User group:** A dropdown menu set to 'All'.
- E-mail:** A text field containing 'q-check@sample.com'.
- Show message at device:** A text field containing 'Check mean value'.
- Warning level:** A dropdown menu set to 'Warning'.

Creation of a task for the statistics check.



Alarms and events

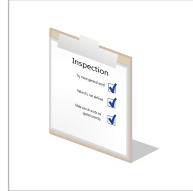
Alarms and events can be user-defined. No programming or SQL skills are required. It is possible to monitor individual machines or complete lines. Monitoring periods can be

limited and the view can be restricted to certain products and machines.

With the help of alarms and events, it is possible to monitor production and, for example, to detect systematic faults or prevent machine downtimes.

Definition of an alarm indicating a line's production deviation.

In this case, Comscale4 automatically reports all production deviations. The number of ejections is monitored and the ejection rate is determined. Even pseudo ejections are identified if, for example, the machines are set too sensitively. Filling quantities can be optimised and average values monitored. This minimises manual rectification of rejects. A number of logical operators are available for comparing current production data with reference values. With Comscale4, it is possible to define alarm conditions and display events that have occurred. This also includes alarm level management (with traffic light function to indicate the warning level) and a time stamp. Comscale4 reports the occurrence of triggered alarms to preset e-mail addresses or displays them to the user on the PC or other devices.



Quality control with test schedules

In quality control, processes or product characteristics, which are not automatically recorded by the networked machines, such as test schedules with user-definable test

attributes, are documented manually. Implementations can be documented in Comscale4 or scheduled as a task. They contribute significantly to quality assurance of the monitored processes. For example, it is possible to check the label, printing, positioning or best-before date.

All characteristics of a test are stored as a single data set. Random sampling checks can be defined and criteria can be user-specified in the form of a test schedule per article. If a quality check is scheduled, the operator receives an appropriate message and carries out the test as specified.

Specification of an article test.

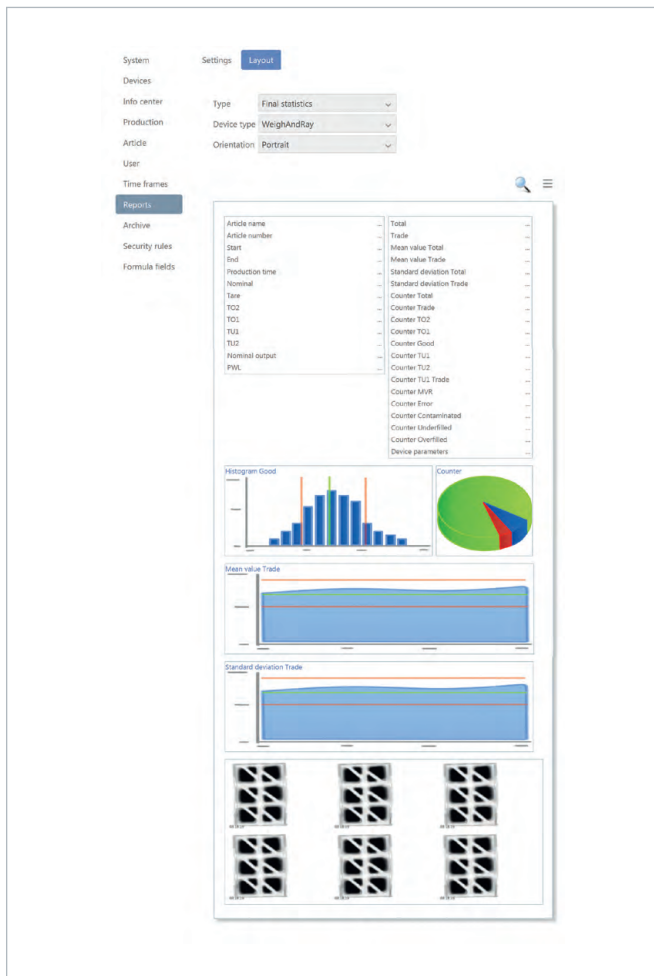


Configuration

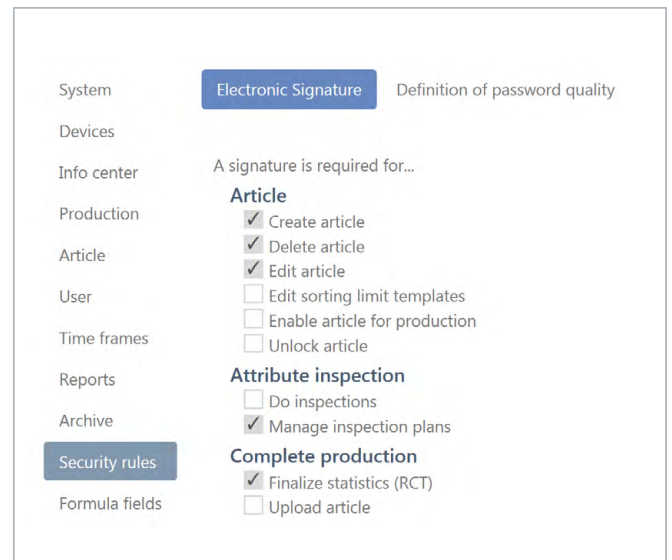
The Configuration module is used to manage basic settings, such as the language versions stored in Comscale4. This also includes the machine parameters, the production structures with details of the machine setup and the article definition as well as the user-defined layout of the software itself.

Other settings relate to time-based statistics and shift times, which can be defined on a daily basis and for multi-shift operation. Depending on the machine type selected, the layout of the reports can also be defined in the configuration module, as well as the detailed view of the machine status.

User management is also located here. It allows the creation of user groups for which rights can be assigned. The settings for the electronic signature can be used to determine which actions require a signature. Only a logged on user can initiate actions in this case. Each individual action must be acknowledged with a password.



Graphic report layout.



Settings for the electronic signature in the Configuration module.

/ Expandable program packages

	Start	Basic	Standard	Professional	Enterprise
Simultaneous users	5	5	10	20	100
Networkable machines	2	5	10	25	100
Device server ¹⁾	1	1	2	10	50
Info center	■	■	■	■	■
Production	■	■	■	■	■
Archive	■	■	■	■	■
Article management ²⁾	□	□	■	■	■
Alarms and events	□	□	□	■	■
Report designer	□	□	□	■	■
Electronic signatures	□	□	□	■	■
Tasks	□	□	□	□	■
Quality control	□	□	□	□	■

□ Installable as an expansion
 ■ Component program packages

¹⁾ Can be distributed between different computers
²⁾ Requires write access to connected machines

Overview of the Comscale4 program packages.

Depending on your requirements, Comscale4 can be flexibly adapted to the structures of your production and thus to your needs.

There are five different program packages available. Additional program modules are included in the higher versions. Program packages can be customised by adding further program modules.

All programs allow the logging and display of different production data and statistics as well as a detailed view of the current production for a single device. This also includes graphic representation of the production process.

From the Standard version upwards, there is bi-directional access to the inspection machines for a maximum of 10 users accessing concurrently. From this version upwards, integrated article management can be used to create and change product data for connected machines centrally.

The Enterprise version offers an additional alarm system with event and task management and other management functions, such as report management and signatures. This top level of expansion has additional task and attribute management modules, allows custom configuration of test schedules and attribute tests and up to 100 users accessing concurrently.



Wipotec Headquarters

/ **Combined expertise under one roof**

Cutting-edge technology

Made in Germany

Wipotec is a sales and service company for dynamic, high-precision weighing and inspection solutions. All machine solutions are developed and manufactured at our headquarters in Kaiserslautern, and we have been setting global standards in the production lines of leading manufacturers for more than 30 years. Throughout the world, customers in the pharmaceutical, food and chemical industries and in the mail and logistics sectors highly appreciate the solutions provided by Wipotec.

Excellent solutions for your application

Wipotec stands for sophisticated high-tech systems with maximum ease of use. The impressive product portfolio provides solutions for nearly all customer applications. If necessary, we take special requirements and conditions into account in supplying customized equipment.

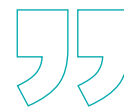


Extraordinary manufacturing depth, all side by side

Wipotec contributes great importance to the in-house development of all necessary technologies as well as the in-house manufacturing of all core components. Consequently, we develop a depth of manufacturing that differentiates us from other vendors and makes us largely independent of suppliers, while forming the basis for our delivery reliability.

At Wipotec, the entire value chain from basic research, to planning, design, and manufacture to sales and service is all under one roof. The benefit of short channels of communication is the guarantee of maximum flexibility in the implementation of every individual product configuration. No matter how unusual your application may be, we will show you a possible solution that is sure to convince you.

That's what makes the difference.



A company must contribute to the well-being and advancement of society – not just short term but long term.

Theo Düppre

Founder and CEO Wipotec Group

/ Globally respected, independent, flexible, and innovative: That is Wipotec

Come and visit us!

Interested in the high-tech solutions from Wipotec? Perhaps you would like to visit our ultra-modern plant. Our prominent market position is no accident, but rather the logical consequence of the creative and competent efforts made by our staff on behalf of our customers. Come and see for yourself. Just schedule an appointment for a tour with us!

Make an appointment:

✉ info@wipotec.com

Wipotec weighing technology is used worldwide

About 20,000 checkweighers from Wipotec have been successfully deployed worldwide. This figure is a confirmation of the outstanding expertise from the company. An unbeatable product range and exceptional service are reason enough for a number of well-known firms in all industries around the world to choose our reliable weighing and inspection systems.

- Globally respected partner in industry for more than 30 years
- Worldwide presence thanks to numerous subsidiaries and partners
- Founder managed company
- Company with high innovation power through large R&D effort, incl. Basic research
- All expertise combined under one roof
- In-house production of all key components
- Broad product range for almost every application
- Broad experience in implementing customer-specific systems
- Use of high precision Wipotec weighing systems for optimum product quality
- Member of the European Hygienic Engineering & Design Group (EHEDG)
- Outstanding service capabilities



/ **Reliable expert service,** customized to your needs

When you choose Wipotec as your system supplier, you have the benefit of top quality service modules that incorporate the vast experience of our weighing and inspection system experts. Whether a pure consulting service or specific line and product support throughout the product life cycle, we are your reliable partner.

Turn to us with your requirements. We would be pleased to discuss the scope and effort of individual services in more detail with you. Trust in our experience and reliability. ▲



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- Professional installation and optimization based on customer needs ensures smooth start-up
- Europe-wide conformity assessment and complete overhaul with the exchange of verification relevant parts
- Preventive maintenance, setup, and optimization of your systems
- Fast on site repairs using original parts
- Calibration checks and readjustment of the entire system, if required
- General product and target objective training to improve efficiency
- Remote maintenance first hand (with appropriate hardware) for urgent jobs

* On conclusion of a corresponding service agreement

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pre sales consulting to after sales service

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