

IntelliScan

Automatically Enter Data Using Handwritten Documents

The image shows a tilted, handwritten data entry form. The form is divided into several sections with various fields and checkboxes. Handwritten entries include:

- Order:** 1, 2, 3, 4
- Starting time (H:MM):** 06:00, 08:50
- End time (H:MM):** 14:00
- Quantity produced:** 24700, 91500
- Scrap:** 0.1, 0.2
- Machine:** Drexel1, Drexel2, Drexel3
- Stop 1 quality issues (N/T):** 11
- Stop 2 quality issues (EXT):** 2
- Workers meeting:** 11
- Micro stop:** 2
- Jamming in feed:** 11
- Cup not in table 2:** 11



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The Complete Solution for the Improvement Process

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BASIC INFORMATION

Short Definition: Data Entry Documents for Production

The collection of production data using handwritten documents has been proven in the manufacturing industry for many decades.

In particular at locations without computer and network or power connections, handwritten document entry is often the only choice.

The advantages appreciated by many companies are the ease of use, high flexibility, corrections easily made as well as legal security due to the employee signature.

Beyond that, the manual data transfer process (e.g. by typing) is not only time-consuming, but also prone to errors. Thus, a more rational approach without losing the advantages of the document entry is often the target objective.

Cosmino® IntelliScan Areas of Application

Cosmino® IntelliScan is a module of the Cosmino® MES^{plus} for continuous improvement, which automates and streamlines the entry of handwritten production documents.

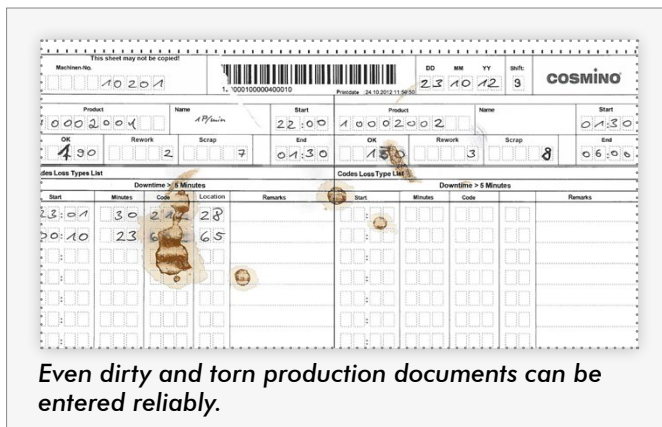
Cosmino® IntelliScan is the only solution on the market, which is customized for entering technical data (e.g. from process control charts or fault tally sheets). The system links unique precision with a comprehensive scope of service, as using IntelliScan, you ...

- ◆ Manage your documents
- ◆ Print your documents at the push of a button
- ◆ Automatically enter data from filled in documents via a document scanner

With more than 25 years of experience in document creation and entry, Cosmino® IntelliScan is so well proven that even soiled, torn or wrinkled documents can be reliably entered.

The entered data is automatically checked and centrally archived by IntelliScan, and is then available to all modules of the Cosmino® MES^{plus} or external solutions.

Many companies appreciate the fact that data entry using Cosmino® IntelliScan is audit-secure. The worker's signature is always scanned and archived together with the document.



1

BASIC INFORMATION

Ready-to-use Philosophy

The more easily a software can be operated, the more effective it is. For this reason, the IntelliScan concept is leanly designed, very similar to all modules of the Cosmino® MES^{plus} for continuous improvement and requires minimum training effort only.

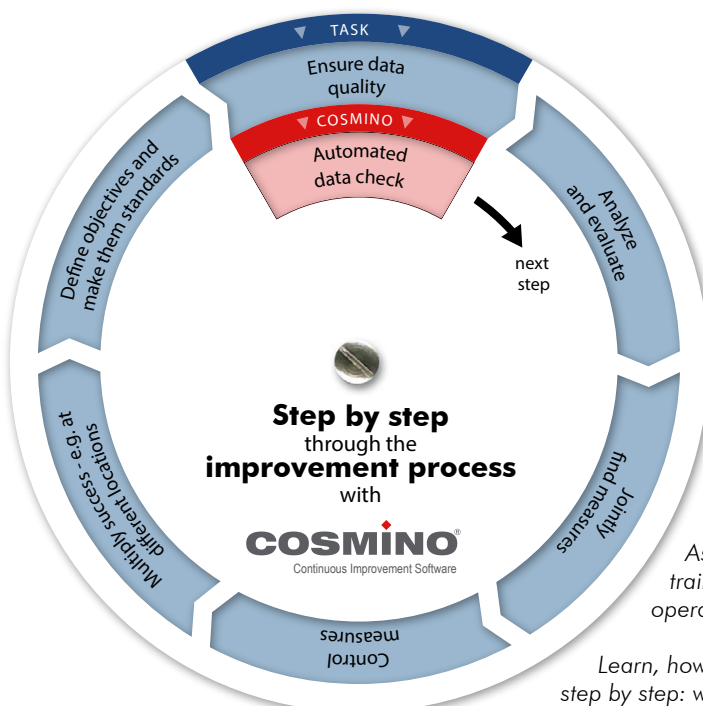
Despite ease of use, IntelliScan is fully integrated into the comprehensive management of key production indicators and measures, which are provided by the Cosmino® complete solution.

Together, we jointly generate a readable data entry document for your specific application and can immediately get start.

You can use IntelliScan as stand-alone solution or extend use with currently 16 other Cosmino® modules for comprehensive control of your improvement process (compare to page 7).

Your Cosmino® IntelliScan Advantages

- ◆ Cost-effective, as the documents of the entire operation can be quickly, simply, and reliably entered using one PC and scanner
- ◆ High data quality, as a plausibility check is performed and even soiled, wrinkled, and torn documents can be reliably entered
- ◆ Significant time savings, as data entry and document archiving take place automatically in a single work step
- ◆ Verifiably a much faster "Return on Investment"
- ◆ Minor training effort, as data entry documents are individually customized for every customer
- ◆ Rationalization: available documents can be combined, standardized, and streamlined – maintaining the same information density.
- ◆ Central, paperless management of all documents and document contents
- ◆ High flexibility, as different document types can be processed in one scanning process without presorting (e.g. fault tally sheet, quality control chart, audit questionnaires, OEE documents...)



The Cosmino® user is guided step by step through all work steps of the improvement process.

As the workflow is defined, training and familiarization effort is minimal, and operating errors are largely excluded.

Learn, how Cosmino® supports you step by step: www.cosmino.com



2

DATA ENTRY

Create New Data Entry Documents

Use your own standard document layouts or individually customized documents. Existing documents can often be combined so that the number of documents on site can be reduced maintaining the same information density.

Flexibly use user data in your documents as desired – e.g. your own error codes or drawings. Using process control charts, you can map tolerance and action limits.

Print documents using a commercially available laser printer (black/white or color, one-sided or double-sided print)

Using IntelliScan document management, you can keep track and for example find out, how many documents must still be scanned or printed the next day.

Scan Documents

Using a commercially available scanner, network copier or multifunction device, you can quickly and reliably enter your documents, as Cosmino® IntelliScan is equipped with extremely powerful handwriting recognition.

Your Cosmino® IntelliScan Advantages

- ◆ Easy entry without sorting prior to scanning. Askew scans as well as upside-down documents are recognized as well
- ◆ Standardization of document management
- ◆ The Scanning process can be performed in individual steps by different employees with different areas of responsibilities (e.g. scanning by worker, validation by foreman)
- ◆ High data quality (e.g. no typing mistakes)

This sheet may not be copied!

Process: HIV
Product: Coto Port

Order-No.: 179600100000100007 Sheet 1 of 1

Machine: Tool-No.: Mixture: Rework % FTS

Loss Location:

- 01 Groove
- 10 Housing
- 17 Sealing bead
- 22 Front Face inside
- 02 Front Face outside
- 03 Surface
- 14 Limit
- 41 Lip Seal
- 42 Rear Face inside
- 43 Rear Face outside

Loss Type:

- 01 Anise defect
- 02 Geometry
- 03 Crack
- 04 Disruption
- 05 Burr
- 06 Deformation
- 07 Ravel Out
- 08 Inclusions
- 09 Cut

Mould L-Type L-Loc Mould L-Type L-Loc Mould L-Type L-Loc

Error collection chart with error images

This sheet may not be copied!

Precontrol

Order-No.: 739544

Material: 0031445-1

Material: 123456

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DATA CHECKING

When recording key production indicators, correct high-quality data is necessary. For this reason, Cosmino® IntelliScan supports you with sophisticated verification and validation functions:

Verification

Immediately after a document is scanned, you first check for data correctness. If a number is not recognized it can simply be assigned and corrected per mouse and keyboard entry. The scanned document remains visible as image file to quickly assign and correct ambiguous digits.

Validation

The content-specialized plausibility check of the recorded data takes place based on your document logic. For example, an error message may be desired, if product A cannot be produced on work center B despite the document information, or if the specified produced part quantity does not correspond with the available production time.

Your Cosmino® Advantages

- ◆ Higher data quality leads to more accurate evaluations and thus, to better decisions
- ◆ Verification and validation can be easily performed even without knowing the document logic
- ◆ Employee discipline is improved, as IntelliScan points out errors or illegible entries and all actions, such as changes in numerical values, are allocated to the respective software use
- ◆ Training needs are exposed
- ◆ Workflow functions: if predefined deviation limits are exceeded during the validation, the persons responsible are automatically notified

The screenshot shows the IntelliScan software interface. On the left, there is a grid of numbers representing scanned data. On the right, there is a form with fields for 'Machine', 'Product', and 'Codes Downtime Reasons'. The 'Machine' field contains '10201'. The 'Product' field contains '10002001'. The 'Codes Downtime Reasons' table has columns for 'Starting time', 'Minutes', 'Code', and 'Loc.'. The table contains the following data:

Starting time	Minutes	Code	Loc.
23:01	30	212	28
00:10	23	602	65

The result of handwriting recognition with the image of the scanned document next to it.

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Data validation – here with an error message, as the runtime deviations are implausible.

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00:10	23	602	65

Every report can be unambiguously identified via barcode and document number, double entries are prevented

Archive with example entry sheets:
www.cosmino.de/en/software/intelliscan/



4

DATA ARCHIVING

The entered documents are archived as image files, while the interpreted data is at the same time transferred or exported to the central Cosmino® database. The data can also be stored in a DMS (Document Management System).

All of these steps take place at a single scan, which additionally saves time.

Your Cosmino® IntelliScan Advantages

- ◆ Can be used for products subject to product liability, as the author of the data remains identifiable at all times
- ◆ Information can be easily found, as it is possible to search for contents
- ◆ Time-saving paperless archiving: Documents can be directly entered into your DMS via the existing export function after single scanning only

Conversion to Online Data Entry Using Cosmino® WorkerPoint

Using Cosmino®, you can seamlessly convert to online entry of production data (SFDC, MDC) via the touchscreen on the machine. For this purpose, the Comino® WorkerPoint module is available.

The introduction phase of the online data entry function is designed particularly flexible:

- ◆ Workstations can be successively converted one after the other without fixed time specifications
- ◆ It is possible to use online entry and document entry in parallel (e.g. for training purposes during the conversion phase)

Further information can be found in the Cosmino® WorkerPoint brochure

*SFDC - Shop Floor Data Collection, MDE - Machine Data Collection

The image shows a scanned document of a production record form. It includes a barcode at the top left, a date field (03.10.07), and a time field (12:34:56). The form is divided into several sections: 'Order' with a table of times and quantities, 'Wire Step' with a table of steps and counts, 'General Downtime Reasons' with a table of reasons and counts, and 'Machine' with a table of machine data. The bottom section is labeled 'Machine data done'.

Archived document

The image shows a screenshot of the Cosmino® WorkerPoint online data entry interface. It features a status bar at the top with fields for Status, Machine state, Since, Time, Duration, Shift, and MP123456 / Demo Machine. Below the status bar is a table of production data with columns for Order, No, Prio, PIA, and various production metrics. To the right of the production data table is a table of loss data with columns for Loss Type and Loss Location. The bottom section is labeled 'Online data entry using Cosmino® WorkerPoint'.

Online data entry using Cosmino® WorkerPoint

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INTEGRATION INTO THE COSMINO® MES^{plus}

COSMINO AG supports you in getting the full potential of your manufacturing and achieving the best results:

- ◆ More output
- ◆ Better quality
- ◆ Increased reliability
- ◆ Reduced costs
- ◆ Full transparency

Our software belongs to the field of Manufacturing Execution Systems (MES) and can therefore be your navigator on the path to Industry 4.0 (Integrated Industry).

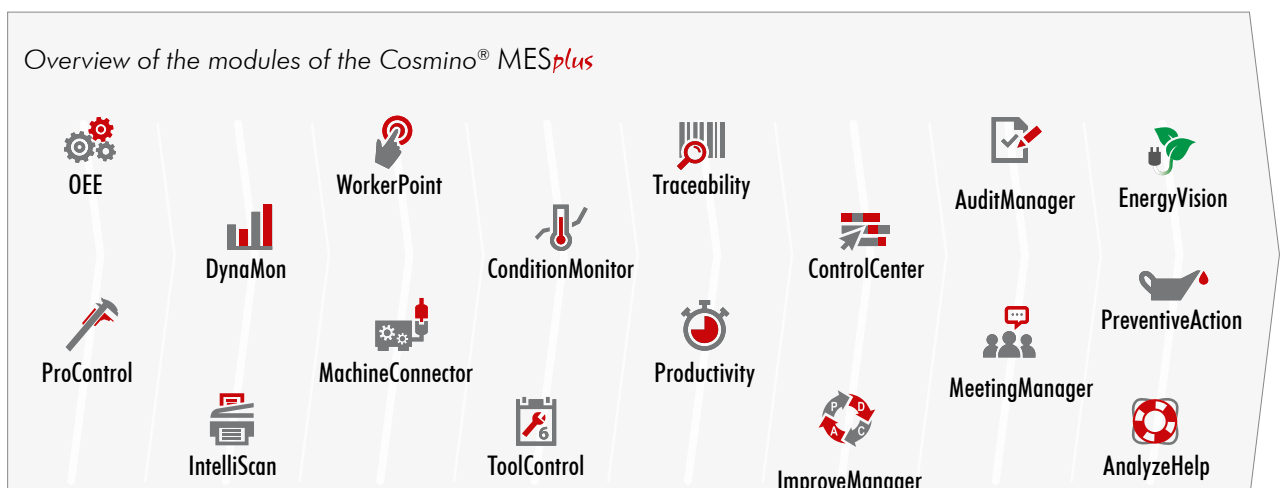
Thanks to more than 26 years of project experience, we can count global companies like BMW AG, Daimler AG and Continental AG among our clients today.

Thanks to its modular, standardized architecture, Cosmino® MES^{plus} offers particularly medium-sized companies from various industries important support in the optimization of their processes and products.

Your Cosmino® MES^{plus} Advantages

- ◆ Focus on people
(their knowledge will be developed and used)
- ◆ Causes instead of symptoms for downtimes
(by integrating the employee's knowledge)
- ◆ Reporting system oriented on measures
(award-winning, fully automated and easily understood)
- ◆ Integrated improvement management system
(measures are linked to metrics)
- ◆ Quick start (*express*) is possible
(automate data from paper forms; get digital data by scanning)
- ◆ Award-winning Online Data Acquisition Dialog
(acquires data and displays information)

Overview of the modules of the Cosmino® MES^{plus}



COSMINO AG has specialized
in consulting, software development and service
in the fields of Manufacturing Execution Systems (MES) and
continuous improvement processes since 1988.



COSMINO AG supports industrial companies of any size achieve full potential of their manufacturing systems and shows how the best possible result can be achieved using the existing resources. From data acquisition to improvement management, the potential of all employees will be brought to bear.

Have we awakened your interest?
Our sales team is looking forward
to making contact with you!

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