

CORPORATE

OUTPUT MANAGEMENT

SAVING MONEY AND OPTIMIZING BUSINESS PROCESSES WITH
COMPANYWIDE PRINT AND DISTRIBUTION MANAGEMENT



SEALSYSTEMS
THE DIGITAL PAPER FACTORY

BELIEVE IT, OR NOT...

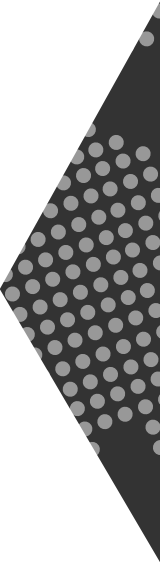
...The success of a company directly or indirectly depends on its ability to manage the delivery of business-critical documents from their origins to the correct business component such as the customers, suppliers and employees..

In addition, business-critical documents must arrive at the correct destination, at the appropriate time, in the the accurate format and version.

Unfortunately the diversity of system environments, applications, formats and devices involved in a companies internal operations can make efficient printing and device management a large task.

A companies need for secure, reliable and efficient electronic distribution of data and documents and an ubiquitous cost pressure, makes Corporate Output Management the weapon of choice when it comes to printing and document output.

This paper will provide a brief overview on what Corporate Output Management is capable of and how a company can benefit from it.





WHAT IS CORPORATE OUTPUT MANAGEMENT?

Corporate Output Management (COM) refers to the consolidation of all printing and print-related processes within a company, into one single system. Printing and electronic document distribution from ERP systems, from CAD and PLM systems, as well as from a single office desktop – all conducted through one powerful software platform.

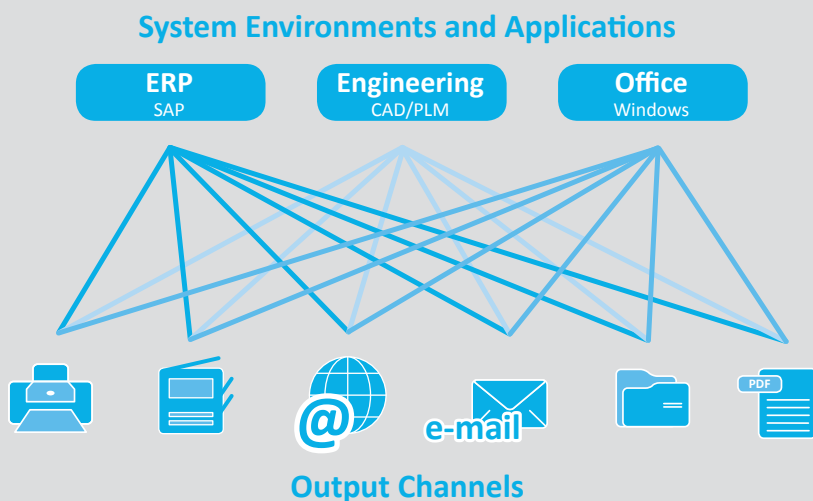
The COM platform connects all ERP, PLM, Engineering and Windows systems and applications with all output devices involved, and elegantly mediates between application forms and formats, printer languages and operating systems. It also covers all up-to-date electronic distribution channels to every destination inside or outside your corporate network.

A broad range of additional functionality ensures end-to-end transparency of output processes, automated conversion into a desired format, streamlined processes and output in the right place at the right time and in the right format.

4



Many companies have invested considerable resources in building an interconnected framework of systems and applications, output devices and point software solutions to optimize their enterprise business operations. In most cases their output network looks similar to this scheme:



Unfortunately these „in house“ structures have a lot of disadvantages. Even so, IT and administrative staff often tend to judge their day-to-day printing business as running stable with little or no room and need for improvements. However document distribution potential becomes obvious if you take a closer look at some of the following topics.

An „in house“ output network is often not efficient.

- Assured delivery of all print jobs?
- End-to-end transparency of output process?
- Device installation and distribution to all your systems?
- Device management and monitoring?
- Forms, formats, printer languages?
- Failover and load balancing?
- Manual work necessary?
- Secured transmission through the whole process?
- Central point of administration and accounting?
- Systematic fleet and incident management of output devices?
- Device/matrix independence of solutions?

Resource Efficiency?

CORPORATE OUTPUT MANAGEMENT ENABLES COMPANIES TO...

Optimize Business and Reduce Cost

COM simplifies your document output while making it more secure, faster and therefore simply more cost-efficient. It also optimizes all business processes that involve document output.

Reduce Maintenance

In combination with optimized output processes, modules for device management and device monitoring offer significant reductions in administration and print-related helpdesk efforts.

Reduce IT Complexity

COM conducts all printing and related tasks developed by a variety of point solutions, vendor-specific products and self-made solutions.

Provide High Availability

COM solutions come with sophisticated load-balancing and failover mechanisms to ensure permanent high availability of critical output servers and devices.

Systematically Optimize all Output

A COM platform can provide extensive data to enable a central and efficient fleet management, incident management and general accounting for your output processes.

Advance Sustainability

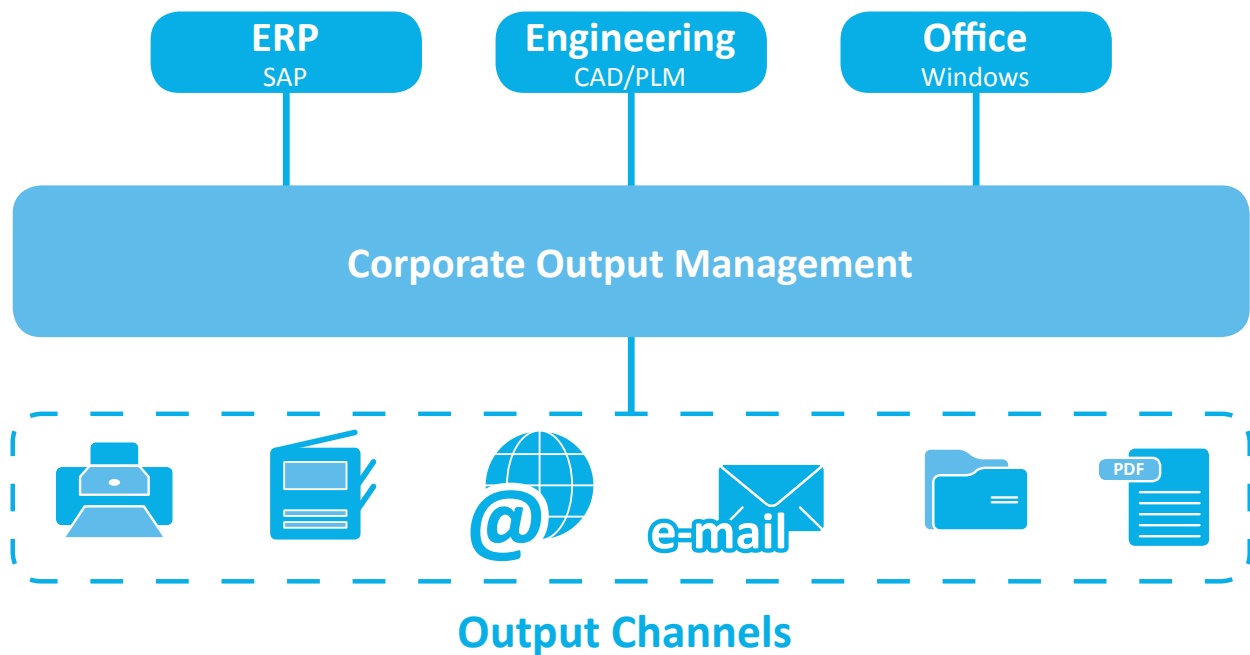
Electronic distribution of documents, default printer configurations and Pickup Printing, reduce paper output significantly. Successful fleet management provides the most value of output devices while reducing the need for new hardware and consumables.

Increase Independence from Hardware Vendors

A COM solution achieves all of the above mentioned benefits independent of the device and software manufacturers being used. This will in turn reduce bindings of costly deals and point solutions regarding your past and future hardware choices.

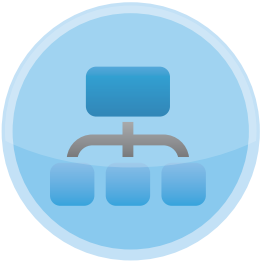


System Environments and Applications



A Corporate Output Management platform is managing all output processes efficiently.

Learn how a Corporate Output Management platform can apply to these barriers and beyond, unlocking optimization potential within the output and business processes that have been neglected for so long.



DEVICE AND DRIVER ADMINISTRATION

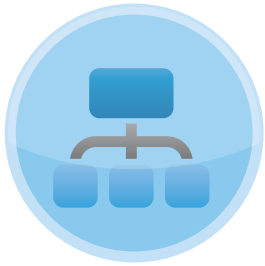
A COM comprehends a central database for efficient device management. New output devices have to be installed only once. The device management tool then lets you distribute the device information to all connected systems in the corporate network at the push of a button. To facilitate the initial installation, the device management software will automatically synchronize with all connected systems and printers. This function is also used to administer the printer fleet in case of change or removal of printers.

- **Reduce administrative effort significantly**
- **Increase quality of printer administration**
- **Avoid system crashes caused by device installation or removal**

5,000 printers...

on multiple system environments, servers and applications - this is typical for industrial enterprises today. The installation and administration of such a fleet of output devices can keep a whole department of IT staff busy through the year. Furthermore, decentral device installation can cause problems on different system environments.

In a worst case scenario at a well-known financial institute, when the installation of a single desktop printer caused 70 servers to crash overnight, it left 3,000 employees idle for hours.



PRINT JOB AND DEVICE MONITORING

Your COM platform monitors all print jobs from end to end – regardless of interim processing steps – and reports success only if the output has been finished.

Because extensive printer status information is available in the Output Device Monitor of the COM system, users and administrators are able to track the progress of print jobs and the sources of an error.

Critical situations are marked in traffic light colors to be identified immediately. In case of a print-related helpdesk call, your IT staff will be able to find the source of the problem at a glance, regardless of the originating system and the type of error.

- **Reduce helpdesk effort significantly**
- **Increase quality of helpdesk work**
- **Ensure end-to-end transparency of all print jobs for users and administrators**
- **Save paper from unnecessary re-prints**
- **Reduce print-related helpdesk calls**
- **Secure business-critical processes**

When printing...

through internal spoolers of ERP or other systems, a print job is often reported successful when the print command was sent without encountering any errors.

If problems with the network transmission, external spoolers or printers occur, the user is not informed. In some cases, jobs get caught in the printer, but are reported as being printed successfully. Users will often try to print the job multiple times before calling the helpdesk who can do little to find out about the source of the problem.

When critical documents and processes are concerned, the consequences can be more severe and whole business processes can come to a costly halt.



VENDOR INDEPENDENT SECURE/PICKUP PRINTING

A COM solution comprehends a device neutral Secure and PickUp Printing feature.

This way you can secure the output of all sensitive or confidential documents in your company by printing only after the user has identified himself directly at the printer. In addition, a lot of unnecessary paper output can be saved if secure printing is set as default configuration.

Last but by no means least, your COM solution works independently from vendors, models and makes of your hardware.

- **Secure confidential documents from unauthorized viewing**
- **Reduce unnecessary paper output**
- **Gain independence from device manufacturers**
- **Protect your hardware investments**

Sensitive documents

Sensitive documents should not lie around in public printers until they get picked up.

Design drawings, engineering prints, medical reports or personnel documents – each company has confidential print output that is worth securing.

In global enterprises, documents are being accessed, processed, sent and printed from and to network destinations all around the globe. When transferring documents from servers and databases to your output channels worldwide, they should be protected against any unauthorized access.





SECURED TRANSMISSION

To protect sensitive or confidential documents during transmission to an output device, your COM solution enables encryption and compression between the source system and the remote output servers or printers. This way, even in-house network confidential documents are secured during their output distribution. Decryption and decompression is done locally at the network of the output destination or directly at the printer.

- **Protect sensitive documents against unauthorized access when processing them through your corporate network**





FAILOVER/ LOAD BALANCING

Your COM solution ensures a maximum level of performance and availability for your output and document distribution.

First, it relieves your application servers from print-related work loads.

Second, it features back-up servers coupled with your output and application servers. These back-up servers implement sophisticated load balancing and thereby ensure failover and high print throughput.

Third, the ODM module is monitoring the printers and lets your COM react immediately according to the rules you have defined in case of failure.

- Permanent high availability of output network
- Constant high print throughput assured
- Automatic rule-based reaction to failures

DAILY PRINTING...

is not a big issue in most companies – until it fails. Many business processes are not finished until the corresponding information has been successfully distributed – be it paper, email, fax or web. If problems occur at some point in the distribution chain from spooler to output destination, a lot of output jobs can pile up in a short time and cause your output and even your application servers to hang up.

If a hung up server doesn't deliver the documents needed for finishing a production run and causes a production line to come to a halt, this can potentially cost a company millions per hour.



SINGLE-DRIVER PRINTING

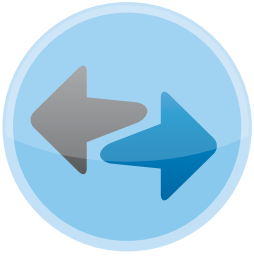
With the single-driver concept of a COM platform, all printers run on one single windows driver.

The MasterDriver for Windows printing covers all types of devices on all Windows system environments throughout your corporate network.

In combination with the central device and driver management functions mentioned above, the COM platform becomes the final answer to all driver, printer and format problems.

- Eliminate printer driver conflicts
- Increase system stability by eliminating conflicts between windows systems
- Relieve your IT staff from the high workload of Windows printer and driver management
- Relieve users from the efforts of forms adaption to different printers and drivers
- Ensure identical output representation of all printouts on all comparable printers





INTEGRATED CONVERSION

A COM solution can cover all the different conversion tasks entailed by your document output processes.

Convert data streams and device neutral ERP and PLM data into device specific print data.

Convert barcode into fonts and ensure Unicode support for your output without the need to buy hardware upgrades.

Convert your document data input into every desired application format (PDF, TIFF, CAD, PDF/A etc.).

- All conversion tasks covered with one system
- Significant reduction of forms creation and management efforts
- Save hardware upgrades for your printer fleet
- Ensure consistent print layouts for all documents on all printers company wide

15 printers...15 templates. For one form?

Forms and templates from your ERP systems and other applications have to be created, stored and managed according to the hardware you are using.

With many different printer types and printer languages, the efforts for forms creation and management can be tedious. Data streams from host systems have to be converted into printable documents. Input documents are created in various application formats.

Additionally, printer fleets often have to be upgraded with costs to support barcodes and unicode fonts for international usage.

How can you ensure consistent print layouts companywide?



CENTRAL ACCOUNTING

The COM system can provide extensive and reliable accounting information all around your output processes. Your output volume can be broken down into single systems, departments, projects or devices. Detailed information about capacity utilization of your printer fleet allows for systematic fleet management to get maximum output from your hardware. Interfaces of the COM platform enable it to be coupled with your corporate asset and incident management systems and thus conduct a wide range of controlling functions with the information provided by your COM system.

- **Optimize capacity utilization of your printer fleet**
- **Create output cost transparency**
- **Enable detailed output accounting and extensive controlling functions**





OPTIMIZING BUSINESS PROCESSES

A good Corporate Output Management solution is not only managing your output. With its broad range of functionality and its high connectivity with your corporate systems and processes, it will play an active role in managing, executing, automating and optimizing your business processes.

- Release manpower previously bound in collecting and compiling documents
- Increase process quality
- Speed up all document-based business processes
- Reduce error rate

Manual searching...

...and compiling of documents from business processes are error-prone and slow. When looking up hundreds or thousands of documents from different system environments, an employee can easily arrange the wrong document in the wrong version, the wrong order or possibly forget to add something in the order.

For business processes including purchasing, maintenance or production, this is critical.

With the introduction of a COM solution, a well-known power plant operator in the USA was able to reduce their workload from 3 months of several engineers tediously working, to 5 short days for the preparation of plant maintenance documents.



EXTENDED TRACEABILITY

Your COM can save all information about your document distribution as lists within your PLM and ERP systems. This feature lets you store detailed information about what documents have been distributed, their version, their recipient and the time of delivery.

If an accident happens after your company conducted maintenance work or your suppliers are sending you wrong parts after they received your specification, this information will come in handy.

- **Protection against claims for compensation**



CONCLUSION: STREAMLINED PRINTING...

COMPATIBILITY FEATURES

- **Coded and non-coded data**

A COM platform covers **Interleaved Printing**. This means that one system is fully compatible for printing or distributing coded information like application formats, documents, files and non-coded information like data streams and database information.

- **Strictly hardware independent and software compatible**

As mentioned before, a COM platform works independently from your hardware and has very high connectivity to other corporate systems. It will usually be adapted to your company-specific requirements and integrated accurately into the connecting systems like ERP, Engineering or Office environments.

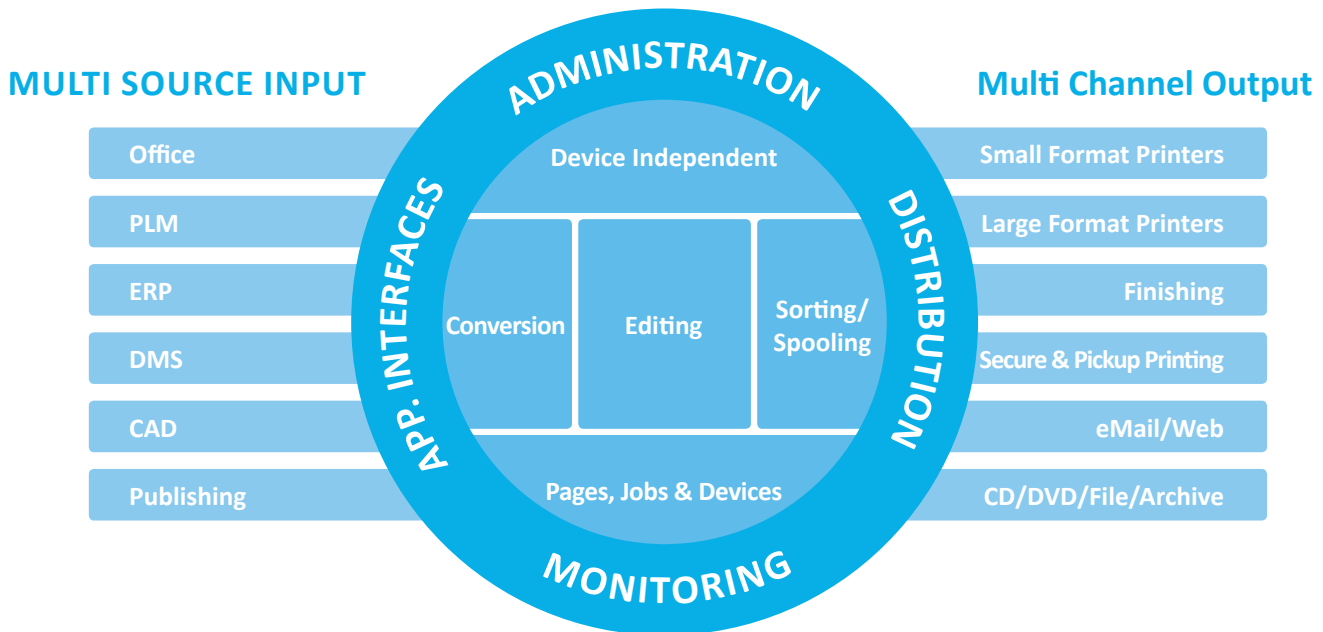
- **Small, wide and wild formats**

ERP systems, engineering applications like CAD software and office applications are using a great variety of print formats. A COM solution is compatible with all of them and will correctly scale, distribute and print a picture as well as your 5m x 2m construction drawings.

With a COM platform, companies are able to manage printing and distribution from all their corporate divisions and input systems – ERP, Engineering/PLM or Office – with one single system.



...AND BUSINESS PROCESSES



CONCLUSION

As discussed, the implementation of a Corporate Output Management platform will consolidate all corporate output processes previously spread over a multitude of system environments, applications, point solutions, data bases and devices into a one single output platform.

The COM platform improves the quality of results and efficiency of all resources involved in document printing and distribution and therefore the return on investment of all related operations and processes. Once again, Corporate Output Management enables companies to...

- Optimize business and reduce cost
- Reduce maintenance
- Reduce IT complexity
- Provide high availability
- Systematically optimize all output
- Advance sustainability
- Increase independence from hardware vendors



SEAL Systems AG

SEAL Systems is an internationally leading developer of information and document distribution solutions. With their “Corporate Output Management” the company is now delivering the power of 30 years of output management experience combined in one modular software platform to provide maximum customer value.

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