MPS Cockpit

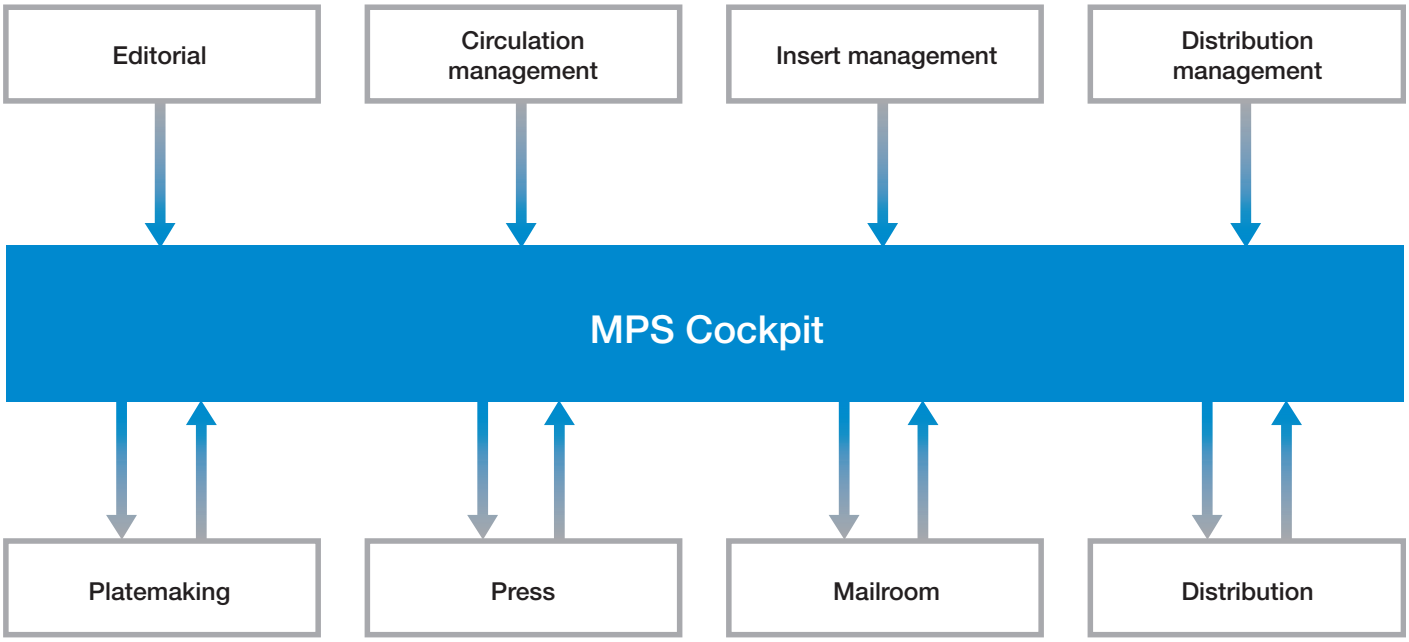
Managing and optimizing the entire newspaper production process

Power and productivity
for a better world™

MPS Cockpit
At the heart of newspaper production

MPS Cockpit is a central planning and management system for the entire newspaper production process. It gives you the means to manage the production of the entire product, as delivered to the readers, across all subprocesses from a single workplace.
The financial pressures resulting from the intense competition between different media have made the optimization of the entire newspaper production process a key step for business success. The suboptimization of individual steps in the process is no longer sufficient. A changeover to the industrial production of newspapers is sought after, and MPS Cockpit is the means to achieve this.
Analyzing production processes in many highly automated industries shows that the key to optimizing the entire production process lies with the central planning. Tracking alone is not enough, as this is merely a passive observation of the production. It is the central planning that gives you the ability to move the efficiency of the plant up to new levels.

MPS Cockpit at the heart of newspaper production



The concepts that make MPS Cockpit so powerful

MPS Cockpit breaks the mould of past management systems. The fact that the whole newspaper production process is finally brought together in one system is just one of the conceptual leaps that have been taken. The entire product as sold to the reader can now be planned and the information passed down to the relevant subprocesses. MPS Cockpit can even combine multiple sites into one virtual printing plant.

Planning the complete product

MPS Cockpit does not replace the management systems of the different subprocesses like platemaking, press, mailroom, etc., but works together with them. MPS Cockpit is, however, the only system that can plan the final product as delivered to the readers. The press management system knows what the print product of a given print run is, but has no idea about what inserts will be placed within this product. The mailroom knows what inserts there are, but doesn't know the details about the main product. MPS Cockpit is the one system that has the complete overview.

The final product is defined in MPS Cockpit, where it is divided into its component parts and where the production runs for each of these components are planned, taking account of the real production possibilities. These plans are then passed to the different subprocess management systems.

As MPS Cockpit is used to plan the jobs in all subprocesses, collisions between jobs can be made visible immediately and the planning adjusted accordingly. Free capacity for additional commercial jobs is clearly visible.

Multiple sites

MPS Cockpit works with multiple sites, giving the production manager one tool for planning all production resources regardless of location. Jobs, print runs, etc., can be moved effortlessly between sites to make full use of the available capacity and to provide alternatives in the event of production difficulties.

Similarly, MPS Cockpit works together with different publishers or editorial offices.

User interface

The user interface of MPS Cockpit has been designed to make working with the system as clear and simple as possible. Operation is intuitive and users of standard office applications will immediately feel at home with the system.

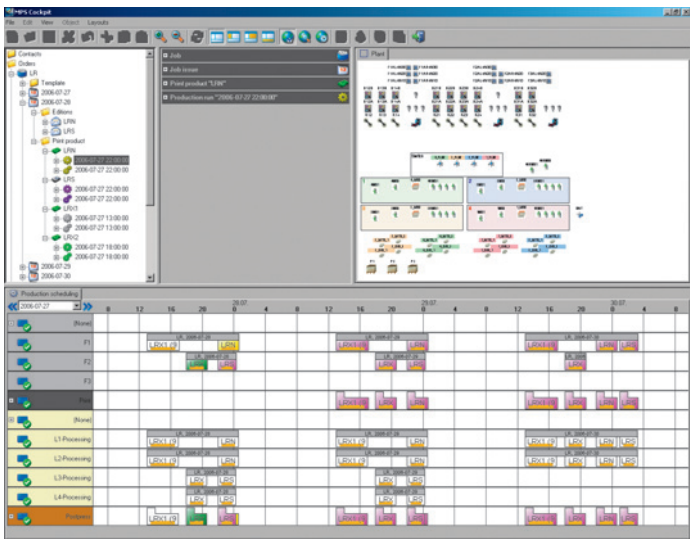
The standard MPS Cockpit screen is divided into four parts.

The top left part shows the tree structure that is used for navigation through the various orders, products, production runs, etc.

The middle section is used for entering and displaying the attributes of the selected item, e.g. the parameter of a production run on the press or in the mailroom.

The area at the top right shows details relevant to the current action. This can be a graphical representation of the whole plant, as in the example shown. It can also be a detailed view of the page planning of various print products of a newspaper, or the matrix for allocating print products to editions.

The area at the bottom of the screen shows a bar chart of the production planning with the allocation of the production runs to presses, mailroom lines, etc. The different bars are color-coded according to the status of the production run. The user therefore has a complete overview of the planning for the entire plant and can reallocate production runs from one line to another through a simple drag & drop action.



Typical example of the user interface

Planning with MPS Cockpit

Scheduling and work orders

Long-term planning has never been easier, and the key to this is MPS Cockpit's handling of "work orders".

A work order is effectively the top level of production planning. A work order for a newspaper will define on which days of the week it is to be produced over a specified period, which can be anything from a single day to many months. The user can define which sections should appear in the newspaper, but it is not yet necessary to define details like the number of pages. By using templates the user can create the outline planning for a newspaper for a whole year within a couple of minutes.

The concept is, however, extremely flexible. The data of a work order can be extended to specify many details of the individual productions, or the amount of data can be left at a bare minimum, whichever the user chooses.

The user also is free to decide when this planning data should be passed to the production management systems of the individual subprocesses. Whatever planning data is defined at this time is then passed to the production management systems so that there is no need to the data entry to be repeated. These lower production management systems are then free to complete the planning data as required.

The advantages of the work order concept do not stop there. The individual print and mailroom jobs remain associated with the work order, which can then be used to gather data from the completed jobs. As well as providing the framework for collation of the production data, this can also be used as a basis for continuous optimization, controlling and commercial invoicing.

Main product and preprints

The different print products that belong to a newspaper can be defined at this early stage. The details of the product planning including exact page count and structure can be left until much later.

The allocation of main product and preprints to an edition is made using a matrix. This matrix lists the different editions on the left and the different print products at the top. The user simply has to click the relevant boxes to make the allocation.

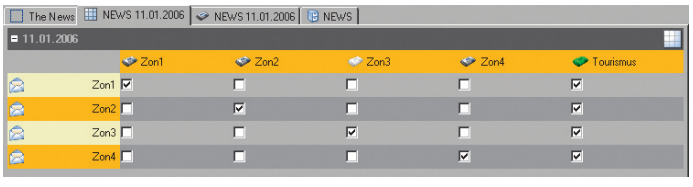
Allocation of production resources

The allocation of production runs to presses, mailroom lines, etc., can be made either through inputting values in the attribute area or by dragging & dropping the bars in the planning part of the user interface. If the user wishes, a production variant can be selected provisionally at this stage so that machine reservations at element level (e.g. inserting line) are made.

Planning conflicts are highlighted in red, making it easy for the user to take corrective action. Gray bars in the planning window link the production runs belonging to an order, giving the user a clear overview of the planning.

The planning methodology on MPS Cockpit means that the production manager very soon has an overview of the free capacity for third-party jobs over the whole year.

Allocating print products to editions



Detailed product planning

The modular structure and open interfaces of MPS Cockpit mean that product definitions can easily be imported from other systems. However, MPS Cockpit itself also includes extensive functions for the planning of products, so the customer can decide which mode of operation is preferred. A combination of the two is, of course, possible.

There are two ways the user can plan the product. Either the structure is selected first and the color content and interdependencies between the pages of the various editions are defined later, as in the following example, or the user can start with a page list, define the color content and interdependencies first, and then select the structure later.

The product structure is selected from the library storing all the possibilities of the press, thereby ensuring that only producible products can be defined.

The exact color content of each page and the dependencies between print products are then defined using the graphical user interface. Pages can be linked simply by drag & drop. Panorama pages can be defined as long as the selected product structure allows this.

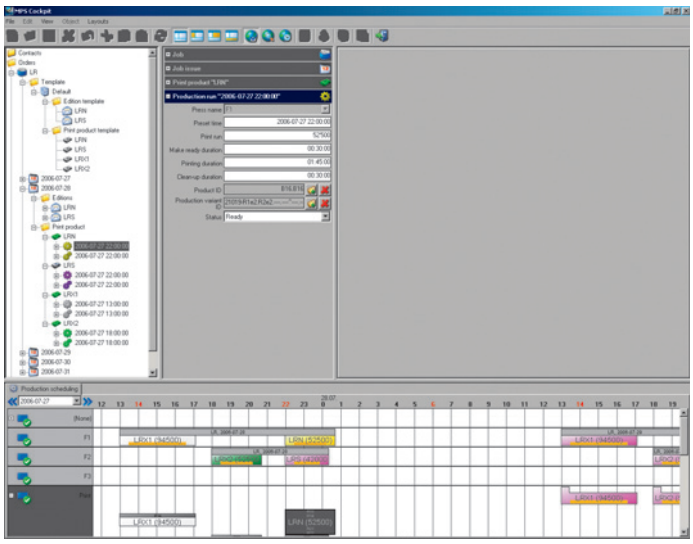
Production planning

Once a product has been defined its production can be planned. The production planning procedures for the various subprocesses like press and mailroom are very similar. Relevant production parameters are set in the attribute part of the user interface. This includes selection of the production variants to be used for the production. The extensive interfaces to the management systems of the different subprocesses mean that MPS Cockpit knows exactly what options the production resources offer and can ensure that no impossible productions can be planned.

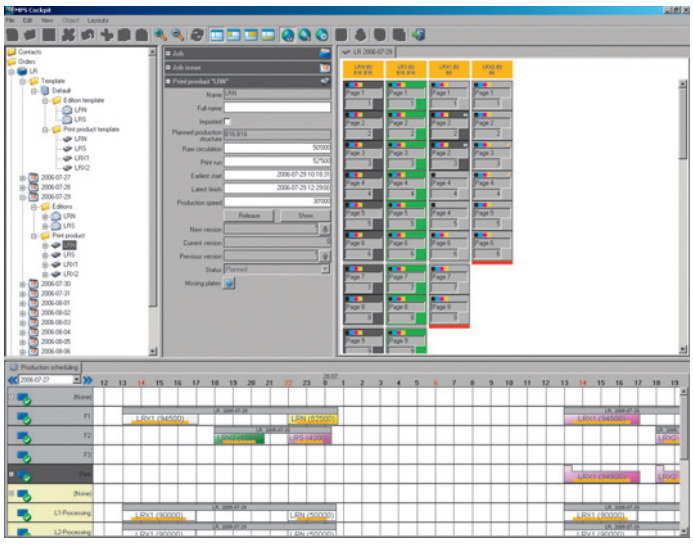
MPS Cockpit checks continuously for conflicts in the planning. The selection of the production variants means that MPS Cockpit can now check for conflicts at the level of individual elements, e.g. reelstands or inserting lines, and inform the user of this. Corrective action can therefore be taken at an early stage.

The final step in the process is the releasing of the detailed planning data to the management systems of the individual subprocesses.

Setting production parameters



Defining color content of pages



Monitoring

The central position of MPS Cockpit, its interfaces to the production management systems of the individual subprocesses, and the addition of copy counters at strategic points in the plant also make it a tool for monitoring the progress of the productions.

As MPS Cockpit has the complete planning data, it knows which product at whatever point in the process belongs to which production run. It can therefore cope with much more complex configurations and circumstances that ordinary totalizer systems or tracking systems without this planning data.

The exact structure of the display with the monitoring data is specific to the individual plant and therefore varies from site to site. The exact content of the display also depends on the customer wishes. The values shown typically include:

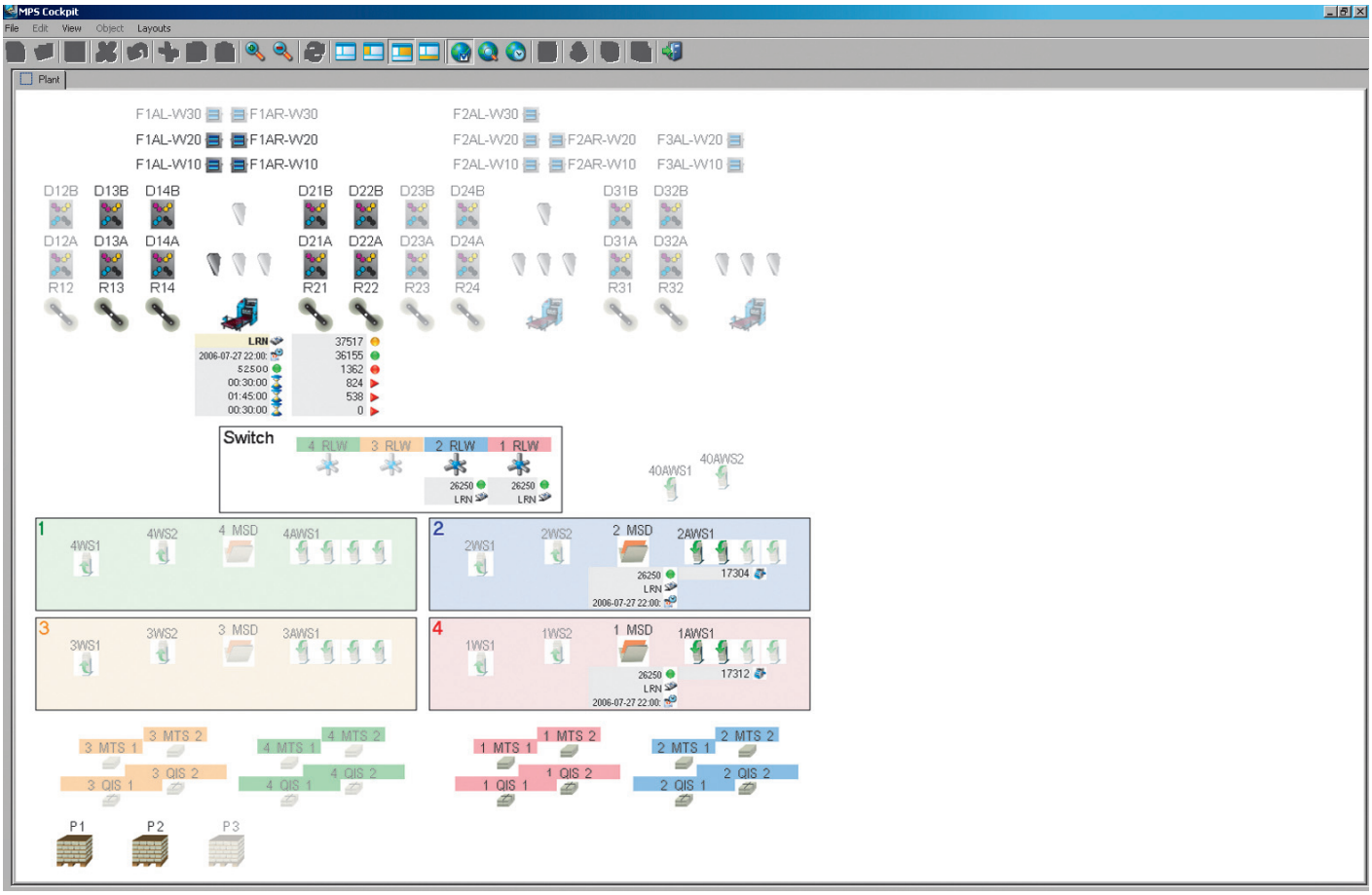
- product name
- production preset time
- production duration
- required print run
- good copies to date (at various points)
- waste copies to date (at various points)

The user can therefore see what is running throughout the plant on one single screen. When MPS Cockpit is used to integrate multiple sites, monitoring data from each site can be shown.

MPS Cockpit with MPS Insight

Extensive tracking functions are available in the browser-based system MPS Insight. This includes views into various additional parts of the production process including page make-up, platemaking, ink supply, paper supply, press, mailroom and delivery.

Example monitoring display format



The advantages of integration

It is integration that unlocks the full benefits of MPS Cockpit. Some aspects, such as the integration with the press and mailroom management systems, have been mentioned already. There are, however, other aspects of integration that also bring substantial business benefits.

Integration with distribution and subscriber systems

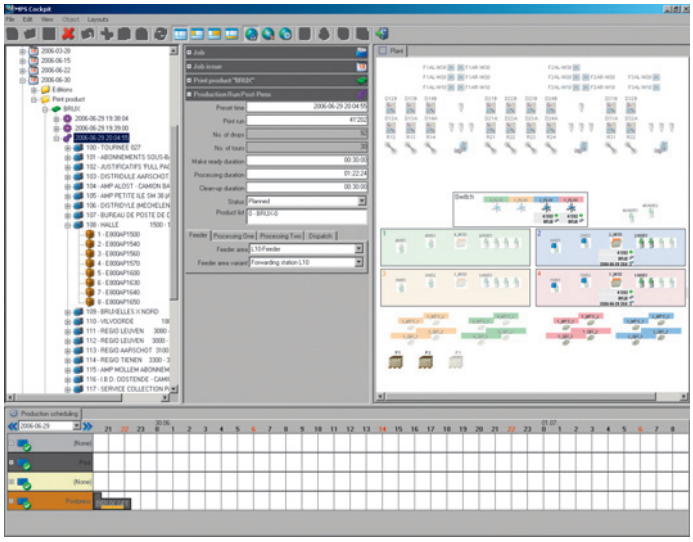
MPS Cockpit has interfaces to distribution management systems and subscriber systems.

MPS Cockpit uses both the subscriber and distribution data to calculate the exact number of copies of each edition required for each drop point. It then uses this data to automatically make optimized and detailed production plans for the postpress area.

The additional automation resulting from this integration includes the ordering of bundles (or groups of bundles) with the correct contents to meet the needs of each individual drop point, taking account of the possibilities of the mailroom equipment. Where relevant, this can be extended to include the addressing of the individual copies of the newspaper.

Furthermore, the combination of the data in the transport logistics system MPS DeliveryPlanner with the production data from MPS Cockpit means that the exact weight of the load for any delivery route can be calculated. The vehicle management functions within MPS DeliveryPlanner can therefore check whether the route can be handled by one vehicle, or whether it has to be split between two, and generate the corresponding manifest for the driver.

Screenshot showing tours and drop points (top left), mailroom production planning (top center) and selected machine elements (top right)



Integration with MPS InsertManager

MPS InsertManager is a further system that can operate stand-alone or together with MPS Cockpit. MPS InsertManager is a system for optimizing the sale, storage and distribution of inserts.

MPS InsertManager allows the user to define the distribution area of inserts by using predefined regions, order-specific regions based on postcodes/zip codes, customer-specific regions and finally by using a “lasso” on a map.

The edition versions created in MPS InsertManager for the specified fine-zoning for inserts are passed automatically to MPS Cockpit without the need for any manual intervention or reentry of data.

MPS Cockpit
The functions and your benefits

The functions at a glance	Your benefits
A single instrument for planning of all subprocesses.	Optimization of the entire production process. Industrial production of newspapers, brings calm into the organization.
A single instrument for several publishers and several printing plants.	More business flexibility. Better use of resources, rapid reallocation of jobs in the event of breakdowns.
Common data model across all subprocesses.	Higher business transparency, clear overview of each job.
Common job data needs only be entered once.	Lower personnel costs, lower error costs.
Management of work orders.	Clear allocation of jobs to work orders and vice versa.
Visualization of free resource capacity.	Raises potential for improved utilization of the plant.
Visualization of conflicts with other jobs.	Avoidance of collisions, planning conflicts can be corrected before costs result.

ABB Switzerland Ltd.
Business Unit Printing
CH-5405 Baden 5 Dättwil
Phone +41.58.586 87 68
Fax +41.58.586 90 54
E-mail bu.printing@ch.abb.com

www.abb.com/printing

3BHT 490 330 R0001, Rev. c

Power and productivity
for a better world™