FOUR PEES
FOR PRINT & PUBLISHING

PROFIT / START

Imp
Complexity Simplified!

FULLY AUTOMATED LAYOUT PLANNING
OFFSET | VSOP | DIGITAL WEB PRESSES | DIGITAL B2/A3 PRESSES | FLEXO

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IMP FOR BOOK PRINTING

Generating layout plan for a bound job is complex. It involves the selection of correct folding templates, paper sizes and press, limited by binding capabilities. Imp automates selection of all these production parameters in one shot and produces RIP-ready layouts. It eliminates the need for an imposition software in prepress. With Imp, job planning and imposition are not separate tasks. With multiple key innovations, it automates planning and imposition.

Imp helps estimators, planners, designers and prepress operators to quickly plan and impose with a single click, most types of jobs - books, booklets, brochures, calendars, business cards, cartons and labels.

PLANNING & IMPOSITION AUTOMATED

The software can automatically make all of the following choices while optimizing overall cost:

• Choosing the right signatures for the job

• Assembling the signatures in the right order

• Selecting the right press

• Picking the right paper size

• Placing multiple signatures on the same sheet if necessary

"The main bene t of using IMP in our company is optimisation of work ow in prepress department. It allows us to **increase the quantity of jobs by approximately two times without increasing number of employees**. Next but not the least valuable bene t of IMP software is **decrease in the cost of producing jobs** (about 22 % is the average reduction of material costs during the last year)."

- **Andrey Gruzin**
INT Publishing, Russia
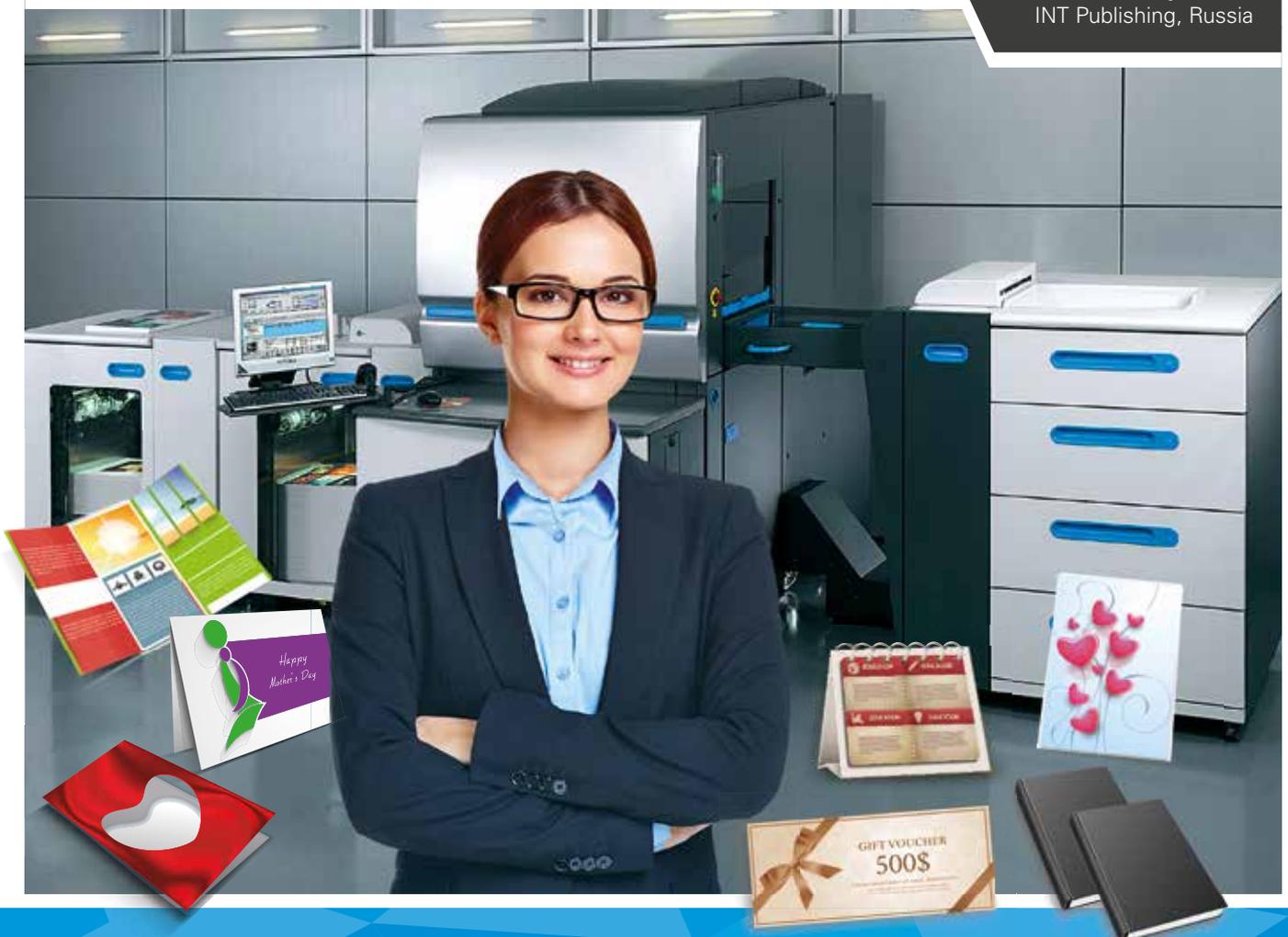
Innovations that make complete automation of planning possible

Imp's planning engine for bound jobs is unique as there are no other software in the market that can calculate the assembly plan as well as the layout plan in a single step. In competing software in the planning space, the user generally has to choose the signatures and also assemble them manually. Only then, do these systems automatically select the right sheet size.

Such automation is made possible by the strength and speed of planning and the optimization algorithms of Imp. But that is not all. We understand commercial printing very well and have distilled and captured the parameters of printing & binding to great depth. Some of the following sections illustrate this.

BEING AWARE OF PROCESS CONSTRAINTS

Imp is aware of most of the printing and binding processes, along with their technical constraints:

Printing presses:

- Number of colors and coating units
- Minimum & maximum paper caliper
- No print & paper gripper margins
- Convertible & Tandem Perfecting support
- Minimum & maximum cut-off for VSOP & Continous-fed digital presses

Binding process:

- Can define custom binding processes
- Minimum & maximum book size and block thickness
- Minimum & maximum cover size constraints
- Costing function for folding and other nishing operations
- Maximum number of collecting and gathering stations

"Imp software has become **an invaluable planning tool** for our organization in past two years. Now **estimating has becoming an exact science**. With Imp software **young estimators can deliver accurate plans as many years of experienced estimator would**. Because for our variety of functionalities, Imp was a perfect fit. We have integrated Imp with our Dynamic AX ERP system and it is the **heart of our planning, estimating and imposition**."

- **Angel Viveros**
Foli de México

The only automated planning and imposition solution for Conventional Offset, VSOP & Digital web presses

For bound jobs on **Conventional Web-fed Presses**, the customizable web folding template database ensures the same ease and automation of layout planning and imposition as on sheet-fed presses. Whether it's single web, multiple web or a press with a slitter attachment; Imp offers full automation. For **Digital Web Presses**, user can feed the minimum and maximum cut-off length (repeat) and also select the folding templates compatible with the in-line or off-line nishing equipment. The software automatically plans the job and suggests the optimum variable cut-off length.

There are many unique parameters in Imp that help create error free impositions:

SIGNATURE FOLDING DEPTH: For every folding template (signature template) Imp computes the maximum folding depth. Before considering such a template, Imp checks if this folding depth is compatible with the paper/media chosen. e.g. for a 300gsm paper Imp will not consider a 32page template which requires 4 folds, but for a thinner or lighter paper, it will.

300gsm can only be creased
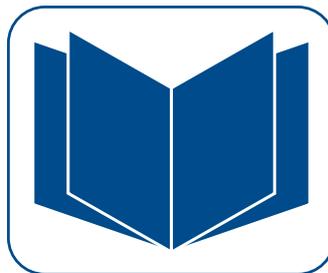
150gsm can take a 8pp folding
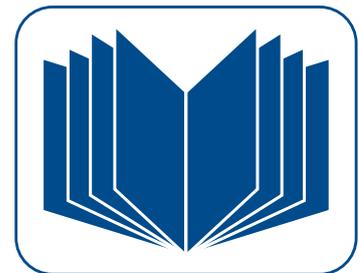
80gsm can take a 16pp folding

If the user selects a folding template which is incompatible with paper type, the software will warn the user and thus avoid potential errors

"Imp has proven **extremely valuable** to our organization as a **planning tool, as well as an estimating tool**. With our mix of **packaging and commercial work on offset and exo presses**, our needs were specific in upgrading our imposition capabilities. After reviewing numerous products, we found that Imp was **easy to use** and t our needs. What we found was a tool with a simple to understand interface, and logic options that made the **estimating and planning of our difficult jobs more efficient**."

- **Jack E. Bown**
Graphic Visual Solutions, USA

MIN. & MAX. SECTION DEPTH: Assembly of folded signatures for a good or feasible binding result is an-other problem Imp tackles automatically. In section 1 sewing binding method, it is important that signature thickness is optimum to provide strength for the thread to hold. To achieve the desired strength, multiple signatures are inserted (collected) into each other before going for section sewing. This task of planning jobs with inserted signatures is fully automated in Imp based on the paper caliper, press size, binding and folding machine constraints.
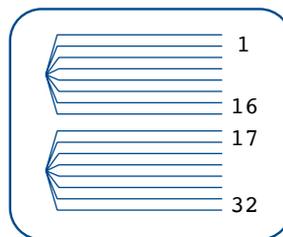
Perfect bind assembly
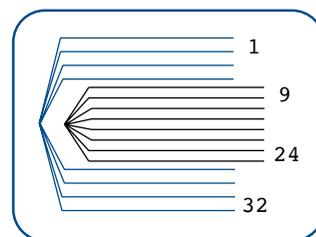

Auto collection of signatures
for section sewing

FLEXIBLE COLLATION MARKS: Collation marks on spine or jog can be assigned with ease. Different patterns are available with custom color fills for multiple signature collecting and gathering scenarios.
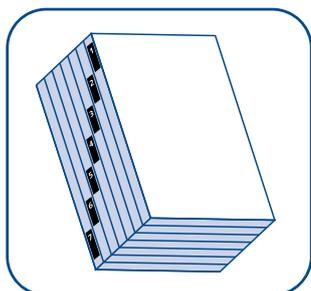
Spine Collation
(Perfect Bound)
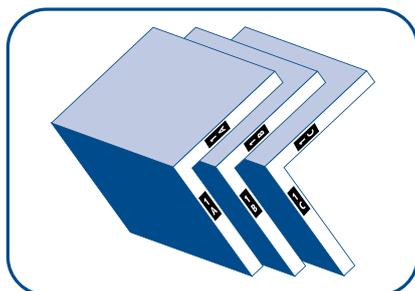
Jog Collation
(Saddle Stitch)
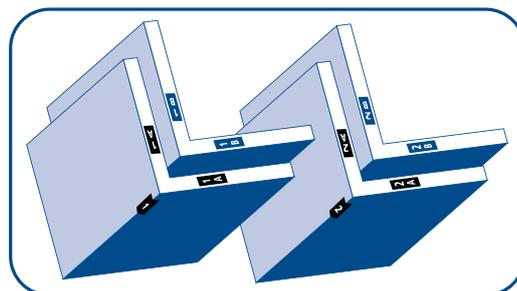
Jog & Spine Collation
(For collecting & gathering - Section Sewing)

CREEP COMPENSATION: Imp gives the option to apply creep compensation based on paper caliper (thickness) or custom value in multiple ways - by **Moving** or **Scaling** the content **Towards Spine, Towards Face or Both!** This automated creep compensation can be overridden and user can edit creep value on individual pages.

▲
*Creep compensation by **Moving** the content towards the spine. In case of running artwork on the spreads, it results in misaligned objects at the spine.*

▲
*Creep compensation by **Scaling** the content towards the spine. In case of running artwork on the spreads, it results in aligned objects at the spine.*

IMP FOR DIE-CUT JOBS

HOLISTIC COST-BASED OPTIMIZATION

Imp generates an optimal layout plan, taking into account costs of printing, plate, die-making and die-cutting, paper, make-ready wastage & running wastage. As minimizing overall cost is the optimization goal, Imp will consider multiple scenarios to strike the right balance between these independent cost functions.

? Can a human consider all these parameters and come up with the right estimate consistently?

? Does your estimator depend on a CAD operator to suggest efficient layouts?

? Why should the layouts calculated by your estimator / planner be reproduced or imported into another software at prepress?


How is This Made **Possible?**

Software intelligence is the key to achieving such levels of automation. Sophisticated algorithms, advanced software technology and cutting edge engineering embodied in Imp give it the power and productivity that goes to work for you. **Here are a few of the long list of unique intelligence capabilities of Imp:**

ADAPTIVE INTERLOCKING PATTERN

When constrained by an available list of sheet sizes or reel widths, it is critical to consider multiple interlocking patterns for a single job. See the illustrations below. Software dynamically generates the repeat pattern that is best for that sheet size.
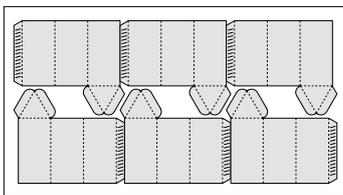
Interlock pattern ideal when the fit is tighter in the vertical direction
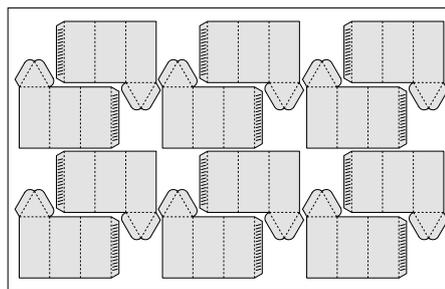
Interlock pattern ideal when the fit is tighter in the horizontal direction
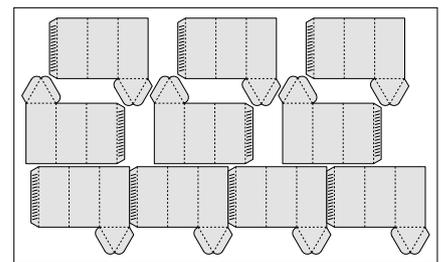
Multiple repeat patterns within the same sheet

INTELLIGENT SINGLE CUTS

Just mark non-critical region(s) on the job and the software will know where it can collapse the gap between jobs on the layout to make it a single cut. This important automation step is either absent or not so automated in competing solutions, which means that the layout created by them often requires manual intervention.
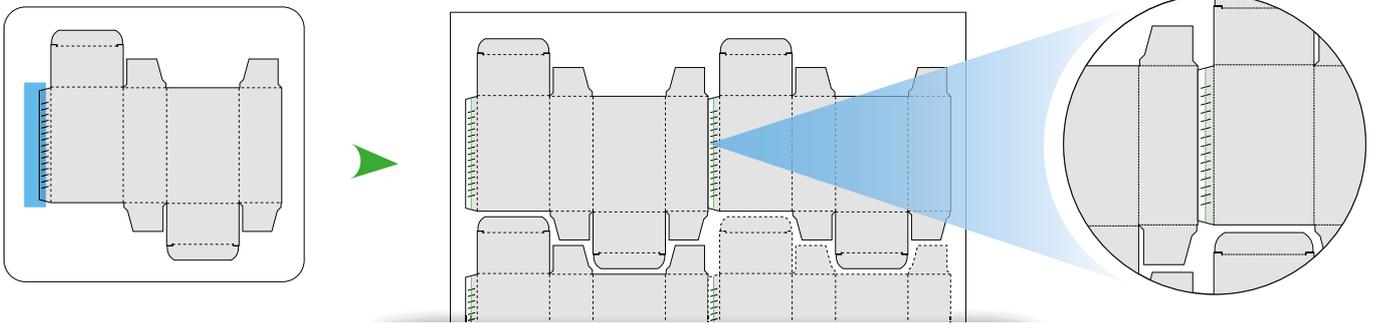
Marking non-critical regions
Imp automatically plans the like
Glue Flap in this example

Auto plan layout

Imp automatically plans **Glue Flap** regions as single cut

REEL SHEETING

The advantage of sourcing print sheets from reels is that, one of the dimensions can be optimized to the maximum. IMP's ability to suggest sheet sizes from the paper / board reels in the inventory results in paper savings.
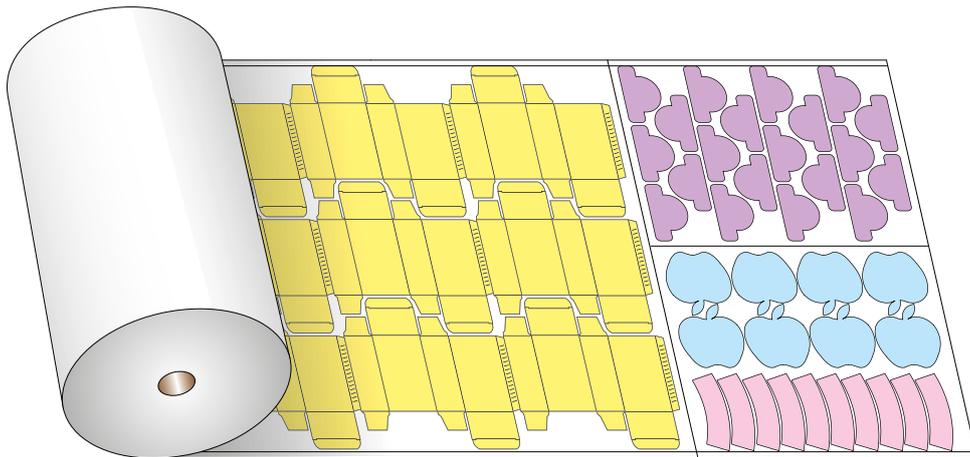
PRINT LAYOUT PREPARATION

With Imp, layout plans generated by the estimator or planner are not just graphical and accurate but also ready to RIP. In prepress, simply link the PDF artwork inside Imp to see a WYSIWYG preview or to generate RIP-ready PDF/JDF (marks included).

JUST 2 STEPS TO PRINT

1-UP DIE-LINE (DXF, CFF OR PDF)

+

SELECT PAPER & INKS

=
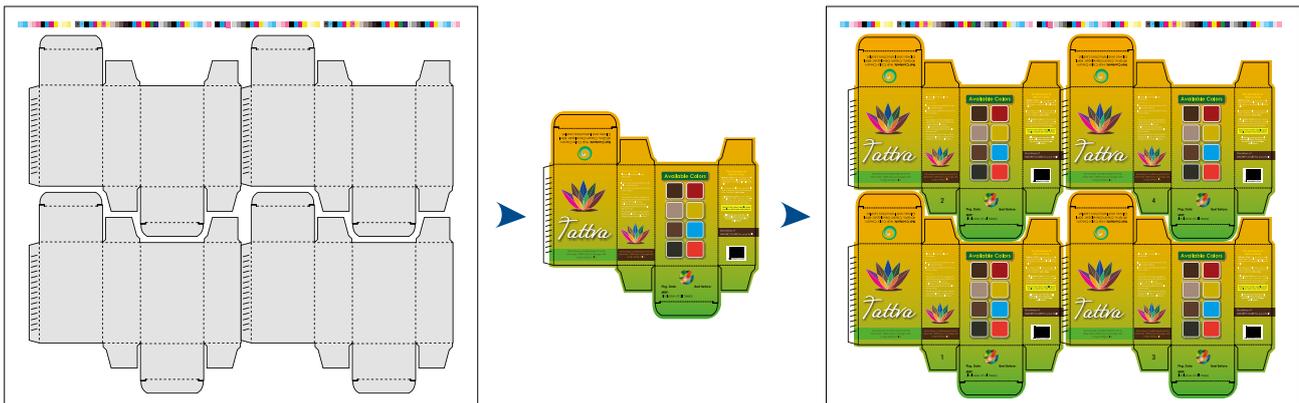
PRINT READY LAYOUT

SINGLE DIE – MULTIPLE ARTWORKS

Packaging jobs are often designed with multiple artworks to accommodate different avors, regions, languages and cultures. The quantities required for each design may vary. Since the structural design remains common, Imp can plan these different variants with different numbers of ups to achieve the required quantity on an existing step & repeat layout.
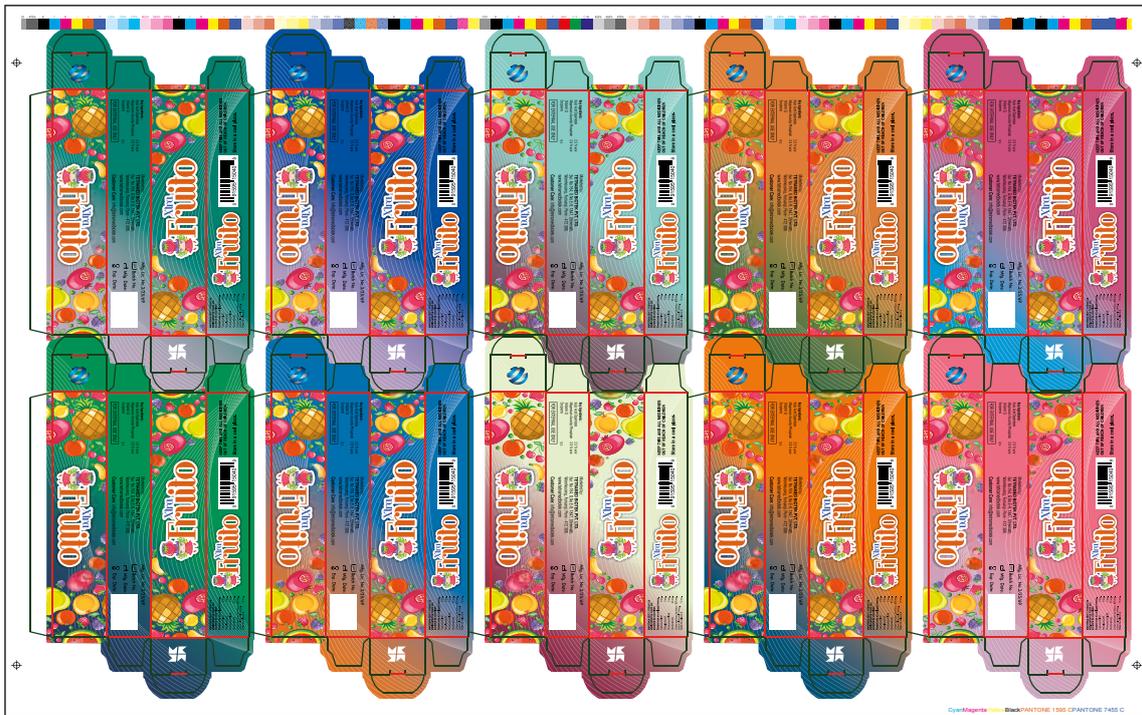
TRUE BLEEDING TECHNOLOGY

With a radically new approach, bleed overlap resolution is completely automated. Just mark non-critical regions on the single-up, and Imp will know how to resolve bleed overlap con icts on the layout. No further manual intervention is required (really, we mean it!) No matter how complex the overlap regions are, Imp can split the space between pro les accurately & automatically.
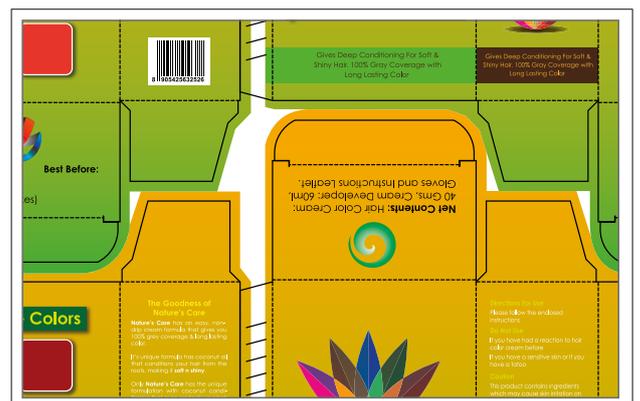
IMP FOR GANG PRINTING

Imp is the most effective & comprehensive ganging tool available in the market today. It is powered by very sophisticated and highly evolved ganging algorithms which are capable of optimizing jobs with varied quantities, colors & coatings across multiple sheets sizes and presses. With IMP, you have the option to pool the entire day's jobs together, set the priorities and then hit a button to automatically generate ef cient ganged layouts.

HOLISTIC OPTIMIZATION , NOT JUST SHEET UTILIZATION

EASE OF CUTTING: Generated layouts are optimized for guillotine cutting. Jobs are rotated automatically to create single cuts when possible.

ORDER OF PLACEMENT: Software automatically reorders jobs to minimize jobs getting distributed across multiple columns/rows. An easy-to-use tool is also available to swap job position to optimize ink distribution.

SEGREGATION / GROUPING: Jobs with common of ine processes can be grouped to one side of the sheet.

OTHER COSTS: For jobs requiring special nishing operations, the costs of die-making, cutting, braille / emboss / foil block making are considered before suggesting best layouts.

BENEFITS

MORE EFFICIENT THAN YOUR CURRENT GANGING TOOL: Imp ganging engine is fast & ef cient, better than anything you can nd for your gang printing needs.

TRY IT TO BELIEVE IT: Even if you are using any other software, you are guaranteed to see higher ef ciencies when you use Imp.

CONSISTENT RESULTS: Imp will produce ef cient ganging results consistently.

ASSISTIVE GANGING TOOLS EMPOWERS YOUR GANGING EXPERT TO OPTIMIZE FURTHER: Imp comes with a host of semi-automatic tools which will empower your ganging experts and make them more pro- ductive.

> "Imp has streamlined the planning function and enabled automation of some prepress processes. Ef ciency and accuracy can now be achieved when calculating ganged jobs by using the Imp's Ganging Module. Whereas it may have taken an hour to manually calculate ganged jobs, this can now be done in as little as 10 minutes using the Imp's Ganging Module."
>
> - **Dana Moore**
> COT Printery, Barbados

The functionality is not limited to sheetfed press alone. Imp software can gang hundreds of die cut jobs across range of digital and offset presses - continues feed digital web press, conventional web press, sheet fed offset & variable sleeve offset presses.
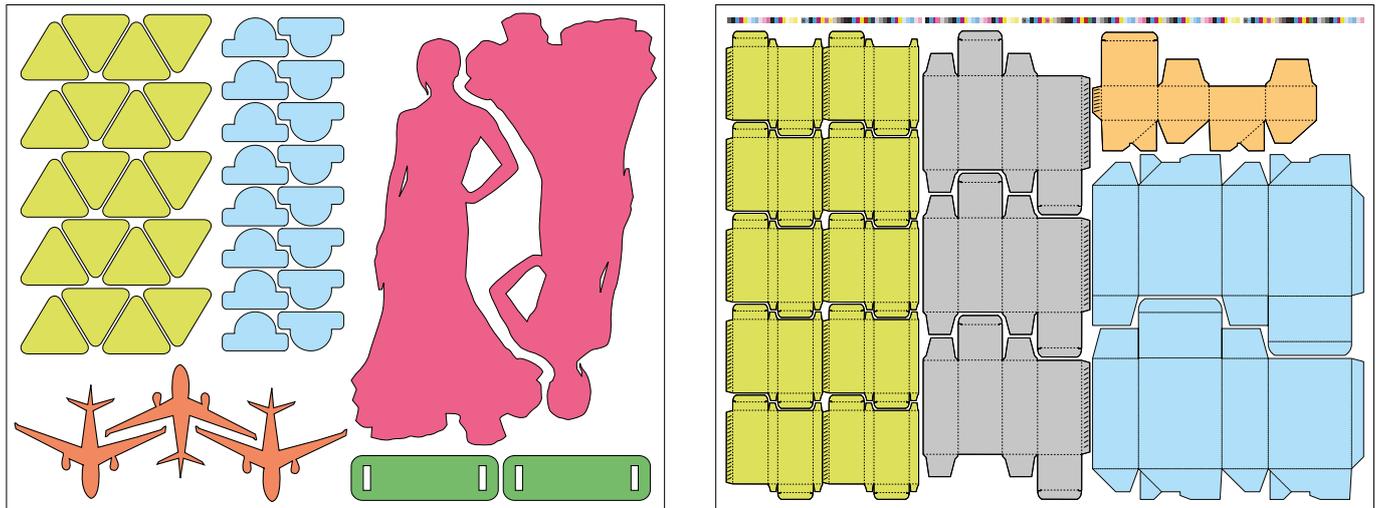
Imp can also be used to optimize jobs on Large Format Flatbed Digital Printers. The media can be de ned with per sheet costing and Imp can plan jobs on these big sheets. Die-line output can be DXF/CFF or HPGL for your digital cutting machines.

🔍 DIE-LIBRARY

The Die-Library software is capable of comparing unfolded outlines of new jobs with thousands of jobs in the die-inventory and nding close matches. User can superimpose the geometries and graphically see how close the match is. With a breakthrough technology that makes geometric (not just key word or metadata based) searching of thousands of existing dies possible, die-inventory maintenance and searching has been drastically simpli ed.
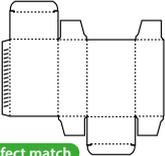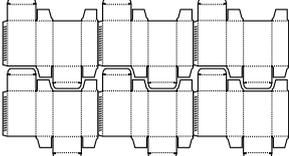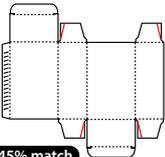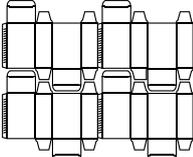
IMP FOLDER – HOTFOLDER

Imagine the benefits of a **handsfree workflow** to generate plans and imposed layouts by dropping PDF, DXF, CSV or an XML file in a designated folder!

IMP FLOW is a hot folder based software application built on top of Imp. It leverages the inherent intelligence of the Imp software to provide unparalleled automation in layout planning and imposition.

CREATE COMPLEX WORKFLOWS: A complex work ow can be created, by chaining multiple actions. The software can automatically plan, generate imposed PDF/JDF and also generate plan reports. There is no logical limit on number of hot folders which can be watched. Moreover, each hot folder could be executing a different workflow.

ONE FOLDER FOR ANY JOB: With inherent intelligence and sophisticated algorithms, one hot folder can process any type of job. Unlike other competing solutions, it is not required to create separate hot folders for different trim sizes, pages counts, binding methods etc. This makes hot folder management really simple.

In the case of ganging too, a single work ow can gang jobs irrespective of size, color, quantity or paper type.

Users wanting to reuse an existing layout template, need not create a separate folder/workflow for each such layout template. The software automatically scans all the available templates and selects the matching template for a particular job.

JDF AUTOMATION

PRE-PRESS   +   **PRINTING**   +   **FINISHING**
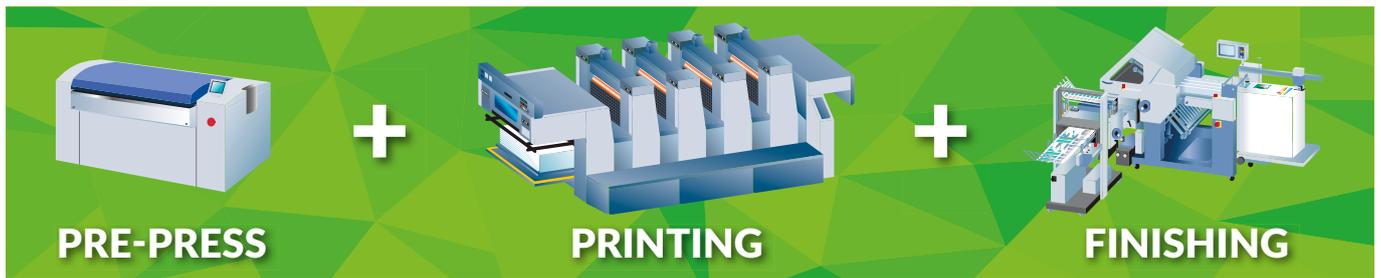
"We had deployed Imp five years ago in our commercial print operations. A wide range of products - books, folders, calendars, stationery, among others - are planned efficiently by Imp. We have also set up a system in which **information about products goes from our SAP ERP system to IMP, which eliminates re-entry and mistakes**. The plan made on IMP is then **transferred as a JDF to our Esko workflow system - again eliminating any manual entry of imposition details**."

- **Harsha Paruchuri**
Pragati Offset, India

IMPOSITION JDF: Imp is a CIP4 certified software product which can generate accurate imposition JDF which can be processed by most RIPs and prepress workflows.

FINISHING JDF: Imp software can generate very accurate JDF / JMF instructions to automate nishing equipment. It can completely eliminate manual folding & bindery make-ready. In the process it also eliminates errors in equipment con guration.

It is not difficult to imagine that a software which automatically generates print layouts keeping printing and finishing equipment parameters and constraints in mind, can also generate accurate setup instructions for the same equipment!

In the software, it is possible to configure which process items to be included/excluded from the JDF output. So, for an offline folding machine, only folding process can be output. For a digital printing machine with inline finishing, all the information required for printing, folding, collecting, spine milling, cover application & 3 knife trimming can be included in a single comprehensive JDF file.

This software when used upstream in planning and imposition, will help you realize full automation later in your bindery!