

INTERNATIONAL  
PRINECT USER DAYS

6. International Prinect User Days, November 18<sup>th</sup> and 19<sup>th</sup>, 2015

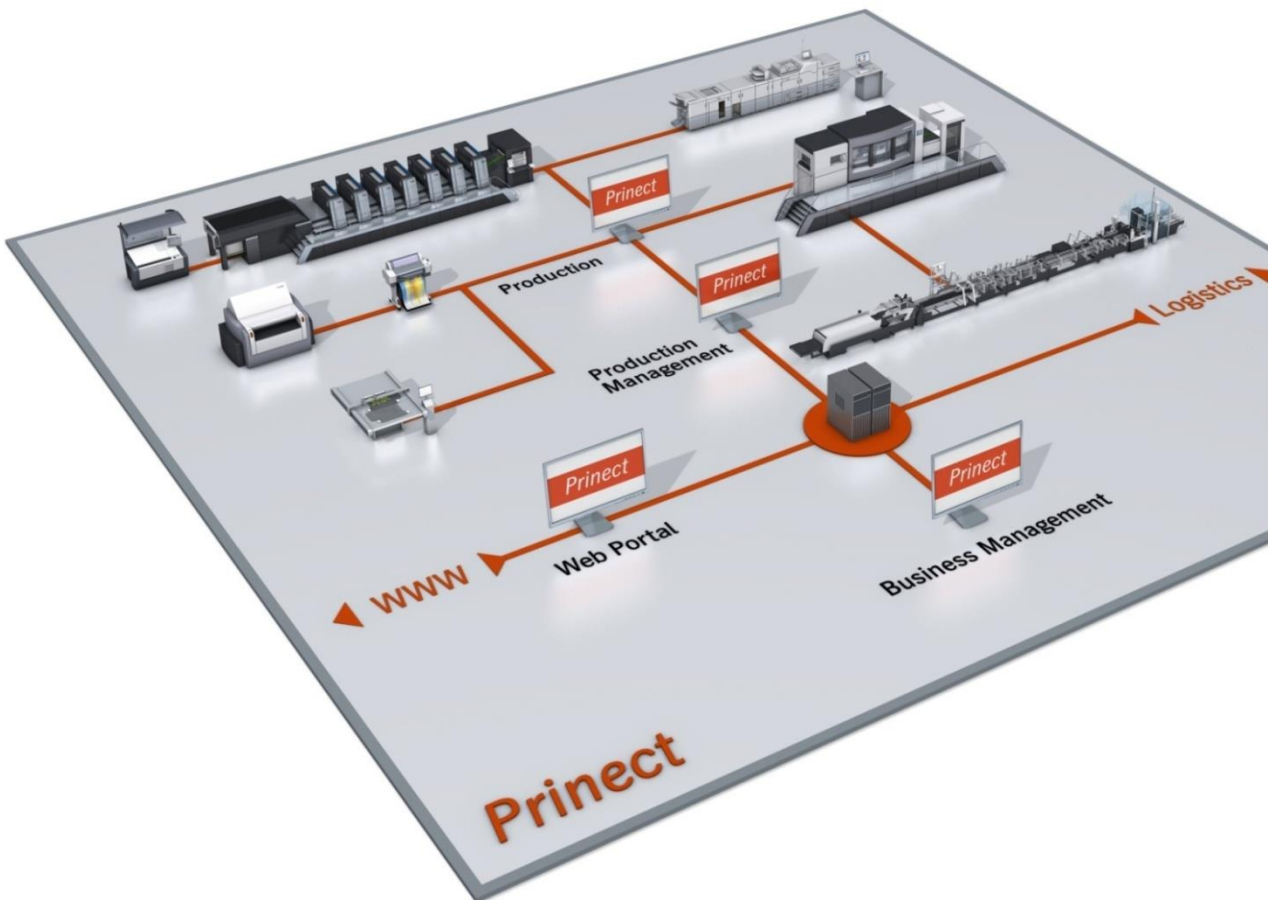
# Integrated folding box production with Prinect 2016

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**HEIDELBERG**



# Genereller Überblick



MIS / ERP-Integration

Web-to-Print

Strukturel and graphic design

Prepress workflow

Print integration

Color and quality management

Finishing integration



# Workshop 25

## Prinect folding box production

1. Automatic creation of structural designs and exact data for estimation
2. CAD with Prinect Package Designer
  - Optimization of unstructured data
  - Design support in Illustrator
  - 3D with refinements
3. One-up preparation with Prepress Manager and PDF Toolbox
  - Trapping white against colors
  - PDF Compare
4. Sheet preparation with Signa Station Packaging Pro
  - New user interface
  - New Marks and control elements
  - Ganging
5. Q&A, Tips & Tricks



# Fast estimation with production data: Package Designer Integration

→ Request from Cockpit or MIS (e.g. Boxsoft)

The screenshot shows the Princt Cockpit software interface. At the top, there is a menu bar with 'File', 'Edit', 'View', 'Job', 'Tools', and 'Help'. Below the menu bar is a toolbar with various icons. The main area displays a production data table with columns for CAD Type, Box Number, Status, Box Inner Dimensions, Box Outer Dimensions, Folded Dimensions, Printing Material, Stock, Shape Number, and Printing Material Dimensions. The table contains 10 rows of data, all with a status of 'Completed'.

CAD Type	Box Nu...	Status	Box Inner Dimensi...	Box Outer Dimensi...	Folded Dimensions	Print...	Printing M...	Stock ...	Shape N...	Sha...	Printing Material Di...	Layout Dimensi...	Wa...	To
Layout		Completed				GD2	280.0 g/m <sup>2</sup>	0.5 mm			1620.0 x 1210.0 mm	1557.5 x 1105.0 ...	20.0 ...	80
Layout		Completed				GD2	280.0 g/m <sup>2</sup>	0.5 mm			1620.0 x 1210.0 mm			
Layout		Completed				GD2	280.0 g/m <sup>2</sup>	0.5 mm			1620.0 x 1210.0 mm			
Layout		Completed				GD2	280.0 g/m <sup>2</sup>	0.5 mm			1620.0 x 1210.0 mm			
Layout		Completed				GD2	280.0 g/m <sup>2</sup>	0.5 mm			1620.0 x 1210.0 mm			
Layout		Completed				GD2	280.0 g/m <sup>2</sup>	0.5 mm			1620.0 x 1210.0 mm			
Layout		Completed				GD2	280.0 g/m <sup>2</sup>	0.5 mm			1620.0 x 1210.0 mm			
Layout		Completed				GD2	280.0 g/m <sup>2</sup>	0.5 mm			1620.0 x 1210.0 mm			
Layout		Completed				GD2	280.0 g/m <sup>2</sup>	0.5 mm			1620.0 x 1210.0 mm			
Shape	EVF11001	Completed	90.0 x 150.0 x 60.0 m...	90.5 x 60.5 x 151.5 ...	150.0 x 1.0 x 352.0 mm	GD2	280.0 g/m <sup>2</sup>	0.5 mm	test	12345	1620.0 x 1210.0 mm			



# CAD request in Cockpit

## → Creation of designs

- Selection of standard design from Package Designer libraries in MDS
- Direct input of ABH dimensions
- Material selection from MDS

**Start CAD Request**

Specify the shape ID, construction code, box dimensions, material and a DesignCreation sequence template to make a CAD request.

**Shape ID:** 12345

**Shape Name:** test

**Construction Code:** EVF11001

**Box Dimensions:**

A (Width): 60 mm

B (Length): 90 mm

H (Height): 150 mm

**Material:**

Brand:

Article Number:

Quality: GD2

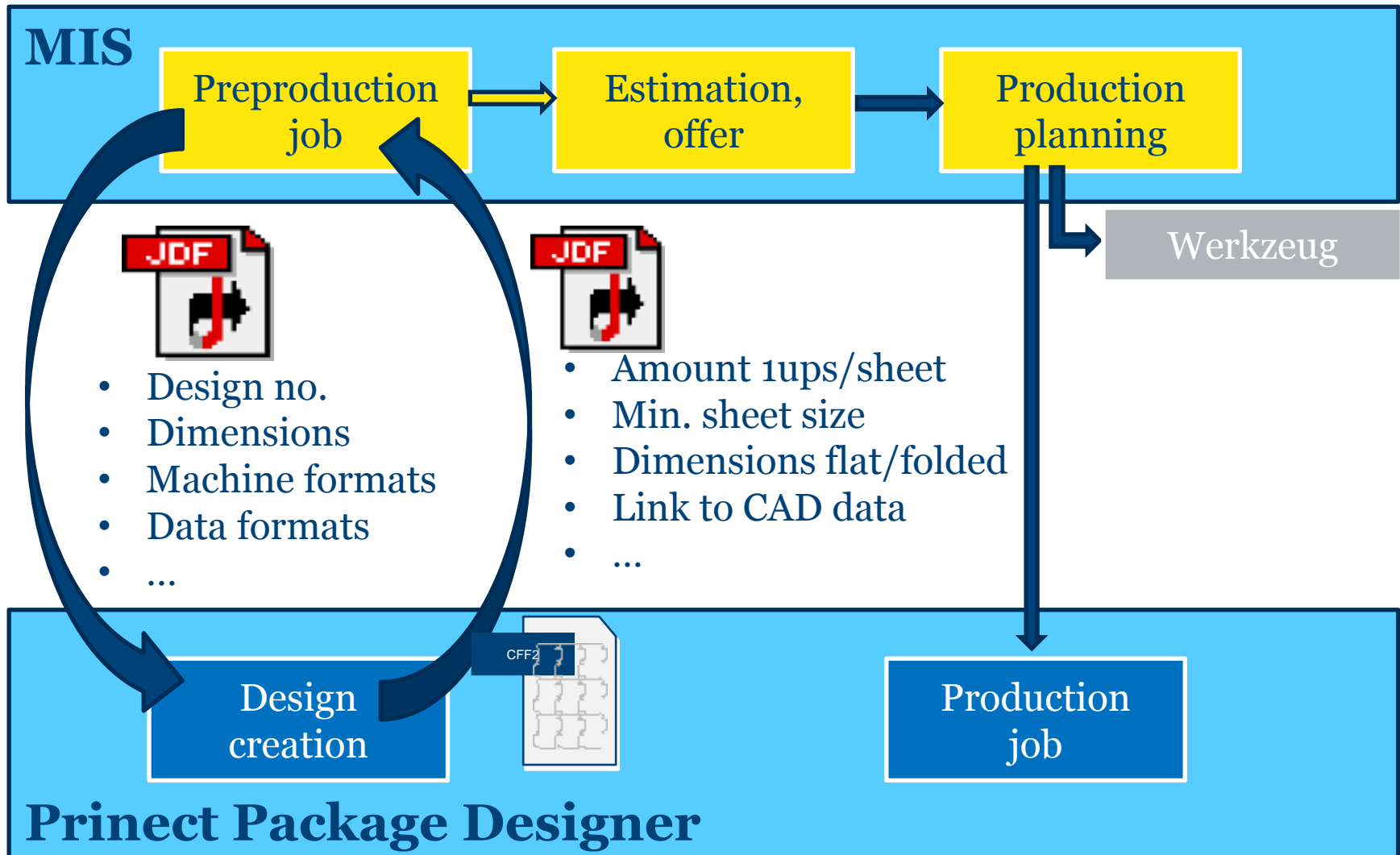
No default:

**Tool ID:** 8015

**Sequence Template:**  ▼



# Automatic Design-Workflow with MIS





# Demo 1

## Automatic Design Creation

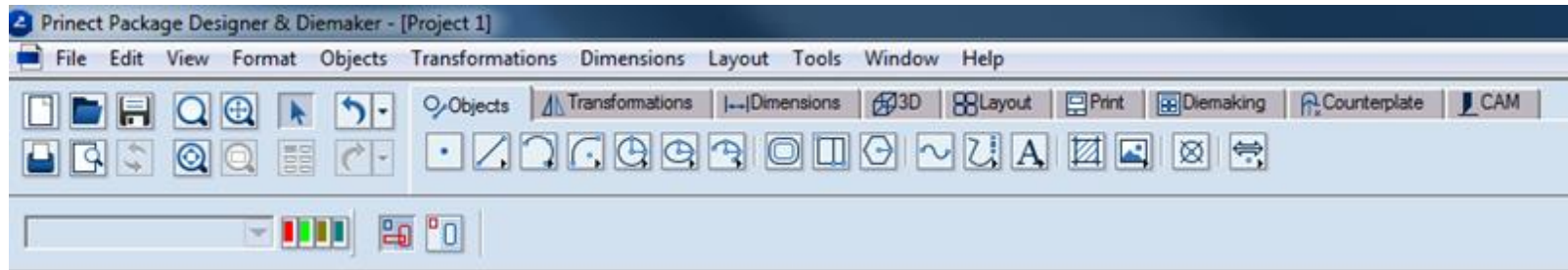
→ Automatic request from cockpit



# Prinect Package Designer

## Optimization of user interface

→ Individually configurable UI

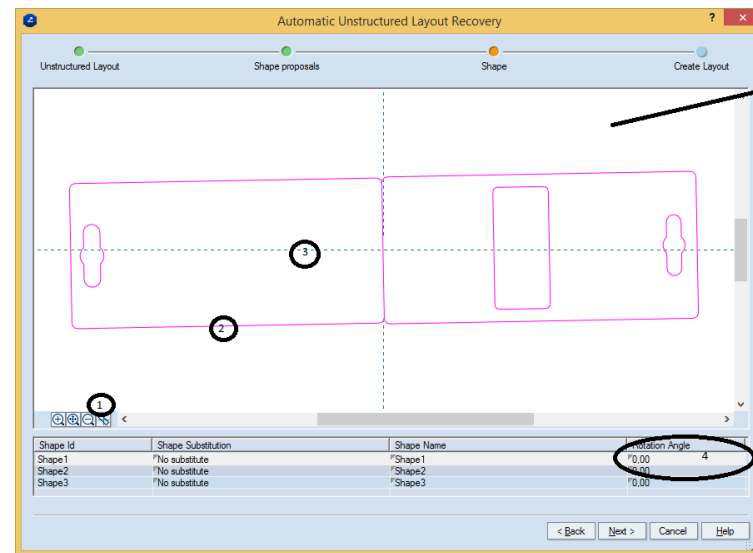
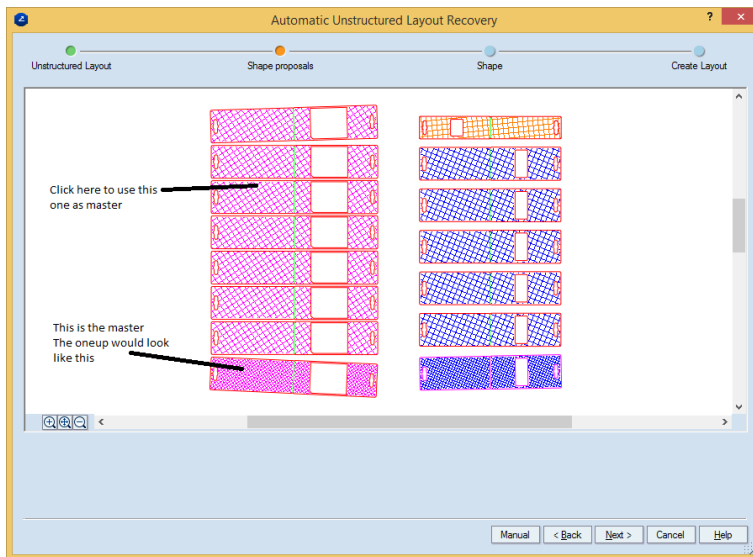






# Prinect Package Designer: Easy recognition and optimization of unstructured CAD data

- Automatic layout recovery
- Manual interaction only required for differently rotated one-ups





# Princt Package Designer

## Layout creation

→ Better structured UI for automatic layouts

**Automatic Layout**

1up Machines

Select All Deselect All

Sheet

- Dymatrix 105
- Dymatrix 106
- Varimatrix 105
- Dymatrix 142
- Dymatrix 113
- Quickmaster QM 46
- Printmaster GTO 52
- Printmaster PM 52
- Speedmaster SM 52
- Printmaster PM 74
- Custom Size

Sheet	Sheet
Type:	Bottom-Center
Width	1000,00
Height	700,00
Left	5,00
Right	5,00
Top	5,00
Bottom	5,00

Trim width by layout  
 Trim height by layout

Recalculate

Sheet	Rotated	Template Name	1ups	Waste
Speedmaster XL 145	No	Shape1 2x1	12	9.1927
Dymatrix 145	No	Shape1 2x1	12	9.1927
Speedmaster XL 162 (7b Format)	No	Shape1 2x1	12	9.1927
Speedmaster XL 162 (7c Format)	No	Shape1 2x1	12	9.1927
Dymatrix 142	Yes	Shape1 1x2 Rotated	12	9.2936
Speedmaster XL 145	Yes	Shape1 1x2 Rotated	12	9.2936
Dymatrix 145	Yes	Shape1 1x2 Rotated	12	9.2936
Speedmaster XL 162 (7b Format)	Yes	Shape1 1x2 Rotated	12	9.2936
Speedmaster XL 162 (7c Format)	Yes	Shape1 1x2 Rotated	12	9.2936
Speedmaster XL 145	No	Shape1 1x1	12	9.3993
Dymatrix 145	No	Shape1 1x1	12	9.3993
Dymatrix 145	No	Shape1 1x2	12	9.3993
Speedmaster XL 145	No	Shape1 1x2	12	9.3993
Speedmaster XL 162 (7b Format)	No	Shape1 1x1	12	9.3993
Speedmaster XL 162 (7b Format)	No	Shape1 1x2	12	9.3993
Speedmaster XL 162 (7c Format)	No	Shape1 1x1	12	9.3993
Speedmaster XL 162 (7c Format)	No	Shape1 1x2	12	9.3993
Dymatrix 142	Yes	Shape1 1x1 Rotated	12	9.4299
Dymatrix 142	Yes	Shape1 2x1 Rotated	12	9.4299
Speedmaster XL 145	Yes	Shape1 1x1 Rotated	12	9.4299
Dymatrix 145	Yes	Shape1 1x1 Rotated	12	9.4299
Dymatrix 145	Yes	Shape1 2x1 Rotated	12	9.4299

Shape 1 2x1 / Waste: 9.19275 %

Shape 1 1x2 Rotated / Waste: 9.29364 %

OK Cancel Help



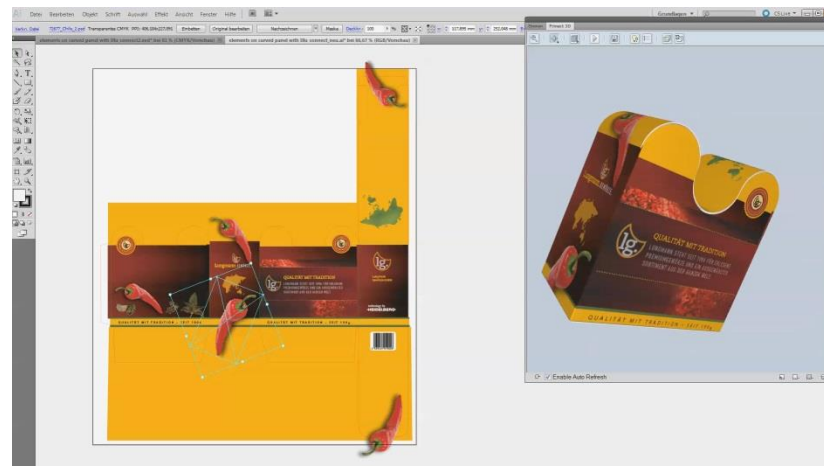
# Prinect Package Designer

## Design support with Illustrator Connect

- Drafts with dimensions and 3D simulation can be used in Adobe Illustrator
- Fast and easy check, if ...
  - ... graphic design fits to structural design
  - ... all sides have correct orientation
  - ...
- Easy, exact design in 3D
- Exact positioning of objects over different sides

- Higher accuracy
- Saving time

[..\..\..\Filme\01-PPD\FürPPT-sales\PPD-2015-IlluConnect with curved elements.mp4](#)





# Demo 2

## Structural Design

- New user interface
- General overview
  - Drafting
  - 3D
  - Layout
  - Sample creation
- New features P1016
  - Layout recovery
  - Auto layout
  - Automated manual layout
  - Simple change of draft



# Packaging relevant new features in PDF Toolbox

## Barcode Editor

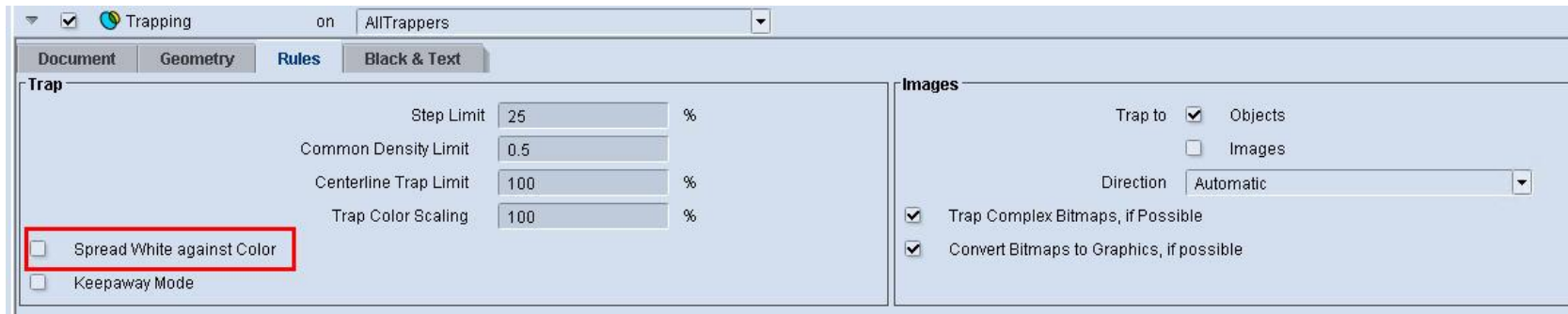
- Support of variable data
- Document color for background
- Undo/Redo





# Packaging relevant new features in Prepress Manager & PDF Toolbox: Trapper

→ Better trapping of white against colors



→ Better handling of transparency



# Packaging relevant new features in PDF Toolbox PDF Compare

- Production security! Avoid unwanted changes!
- Comparison of prepared PDF with delivered data
- 4 displays:
  - Preview of original data
  - Preview of selected, prepared data
  - Delta E 2000 difference image
  - Inverted Delta E 2000 difference image
- Colors of type transparent or die line can be ignored

[ 1 ] \\KIE-WF06PRDY\TestData\FrankG\Compare\Testseite\_Original\_ÄÖÜ.pdf - 1  
[ 2 ] \\KIE-WF06PRDY\TestData\FrankG\Compare\Testseite\_Edit\_ÄÖÜ.pdf - 1  
Auflösung: 300.0 dpi - Vergleichen innerhalb: Endformat-Rahmen - Mittlere Prüfungsgenauigkeit

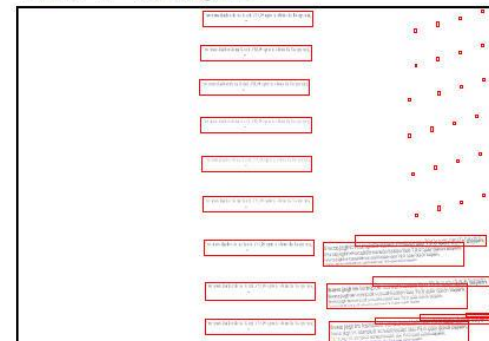
[ 1 ] 420.00 x 297.00 mm



[ 2 ] 420.00 x 297.00 mm



Fehler: 41 Warnungen: 0





# Demo 3

## PDF Toolbox P2016

- Trapping White against Color
- PDF Compare

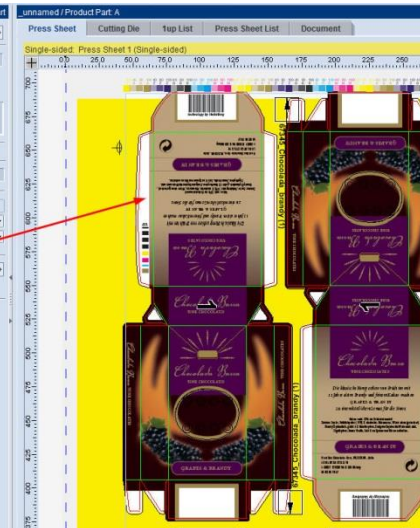
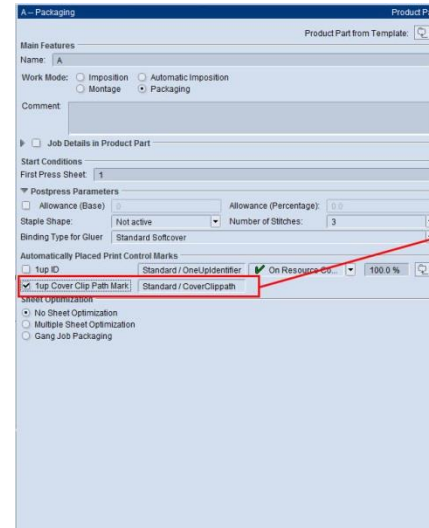
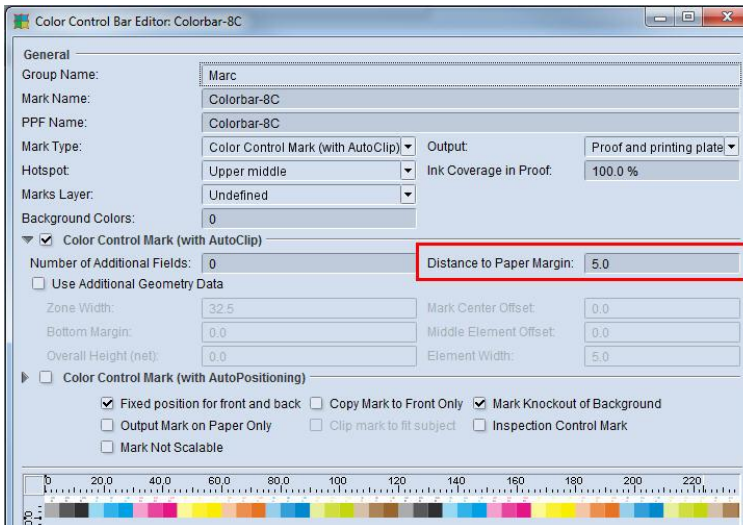




# Prinect Signa Station Packaging Pro

## New functions for marks

- Limitation of maximum color in “Ink eater editor”
- New attribute “distance to paper margin” in color bar editor
- Automatic cover clip path mark

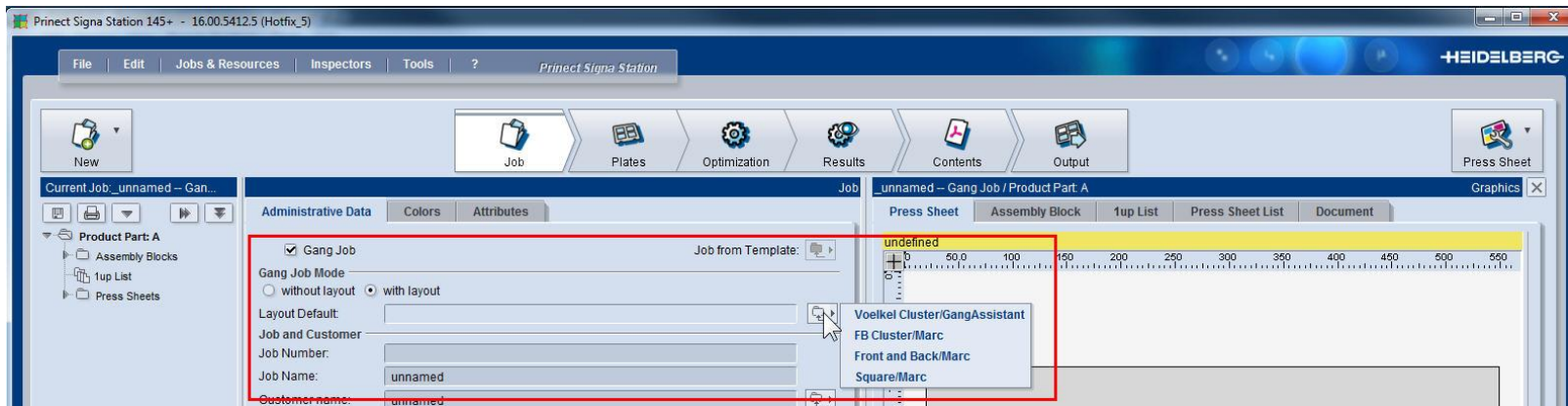




# New features in Prinect 2016

## Easier handling for ganging

- Permanent display of gang pool
- List view is updated and displayed automatically
- Easier selection of “Gang job with Layout”





# New features in Prinect 2016

## Display of optimization results

→ For all working modes

→ Detailed results under “results”

→ Summary of most important results under “Optimization”

**Optimization Result**

Total Real Costs:	1230.34	Total Sheet Count:	10900
Efficiency Factor:	72.83 %	Number of Varying Press Sheets:	2
Different Objects:	18	Splits:	0
Total Target Quantity:	125200	Total Allowance:	0
Total Waste Quantity:	0	Total Paid Overproduction:	6260
Blank Waste (Sheets):	1806	Printed Waste (Sheets):	1156
Printed Waste (Items):	25140		

Press Sheet: Standard (Job internal) / SM 74      Paper Size: 700.0 mm x 500.0 mm

Sheets	Quantity	Allowance	Area Utilized
1	10500	0	83.55 %
2	400	0	80.43 %

Job

Job	Object	Delivery Quantity	Overproduction
	01EZS0002#10000	10000	500
	01EZS0025#8500	8500	425
	01EZS0025#8500	8500	425
	01EZS0047#9000	9000	450
	01EZS0047#9000	9000	450
	01EZS0045#9000	9000	450
	01EZS0045#9000	9000	450
	01EZS0013#9000	9000	450
	01EZS0013#9000	9000	450
	01EZS0018#10000	10000	500
	01EZS0018#10000	10000	500
	Square05D_EPS0004#5000	5000	250
	Square05D_EPS0007#6000	6000	300
	Square05D_EPS0007#6000	6000	300
	Square05D_EPS0011#2000	2000	100
	Square05D_EPS0011#2000	2000	100
	Square05D_EPS0003#1600	1600	80

Show Placed Folding Sheets/Assembly Blocks

Optimize      Report

Job Number: \_unnamed 11/13/15 11:36 AM

**Total Values:**

<b>Total Real Costs:</b>	1230.34
<b>Total Sheet Count:</b>	10900
<b>Efficiency Factor:</b>	72.83 %
<b>Number of Varying Press Sheets:</b>	2
<b>Different Objects:</b>	18
<b>Splits:</b>	0
<b>Total Target Quantity:</b>	125200
<b>Total Paid Overproduction:</b>	6260
<b>Blank Waste (Sheets):</b>	1806
<b>Printed Waste (Sheets):</b>	1156
<b>Printed Waste (Items):</b>	25140
<b>Plate Template:</b>	Standard (Job internal) / SM 74
<b>Paper Size:</b>	700.0 mm x 500.0 mm

**Sheets Quantity Allowance Area Utilized**

1	10500	0	83.55 %
2	400	0	80.43 %

No.	Name	Object	Delivery Quantity	Allowance	Overproduction	Waste (pieces)	1	2
1		01EZS0002#10000	10000	0	500	0	1	
2		01EZS0013#9000	9000	0	450	1050	1	
3		01EZS0013#9000	9000	0	450	1050	1	
4		01EZS0018#10000	10000	0	500	0	1	
5		01EZS0018#10000	10000	0	500	0	1	
6		01EZS0025#8500	8500	0	425	1575	1	
7		01EZS0025#8500	8500	0	425	1575	1	
8		01EZS0045#9000	9000	0	450	1050	1	
9		01EZS0045#9000	9000	0	450	1050	1	
10		01EZS0047#9000	9000	0	450	1050	1	
11		01EZS0047#9000	9000	0	450	1050	1	
12		Square05D_EPS0003#1600	1600	0	80	320	5	
13		Square05D_EPS0003#1600	1600	0	80	320	5	
14		Square05D_EPS0004#5000	5000	0	250	5250	1	
15		Square05D_EPS0007#6000	6000	0	300	4200	1	
16		Square05D_EPS0007#6000	6000	0	300	4200	1	
17		Square05D_EPS0011#2000	2000	0	100	700	7	
18		Square05D_EPS0011#2000	2000	0	100	700	7	



# New features in Prinect 2016

## Multi Sheet Optimizer

- “Optimization” in workflow bar
- Optimization for multiple plate templates
- Adaptable UI for cost parameters

Advanced Sheet Optimization Setup

Sheet Optimization

Optimize:  Horizontal  Vertical  General

Distance: 0.0

Max. No. Articles: 0 Sheet Brake Total: 0

Quantity as Multiple of: 100 Overproduction: 0.0 %

Allow 1up on Different Press Sheets

Press Sheet Allowance (Base): 0 (percentage): 0

1up Allowance (Base): 0 (percentage): 0

Cost Data for Optimization

Press (hourly rate): 0 Sheets per Hour: 0

OK Cancel

▼ Cost Data for Optimization

Print Preparation (global): 250.0 (per separation): 0.0

Printing Material (per 1000 sheets): 100.0

Less Plates -10 -8 -6 -4 -2 0 2 4 6 8 10 Less Sheets

Advanced Settings...



# New features in Prinect 2016

## Changes for optimized ganging results

- Delete complete sheets
  - Jobs on this sheet are transferred back to gang pool
- Optimum usage of material by deleting or adding single jobs
- Subsequent adaptation of delivery amount of single jobs
  
- After each change optimization results are recalculated



# Demo 4

## Signa Station Packaging Pro P2016

- Ganging with Sheet Optimizer
- New marks

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For further information please contact [sabine.roob@heidelberg.com](mailto:sabine.roob@heidelberg.com)

Thank you for your attention!

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