



THE LEADING STANDARD IN ENTERPRISE MOBILITY & SHOPFLOOR-INTEGRATION

SAP Labelmanagement MembrainPAS LM

January 2016

SUCCESS-STORY

Managing more than 10,000 labels in SAP per day

Black-box labelling logic

CHT R. Beittich GmbH prints a lot of labels on a daily basis. An awful lot of labels. More than 10,000 labels in around 50 different layouts present the - on average - 50 active users with considerable challenges.

In order to manage such large quantities, CHT programmed their own labelling system as a customised solution. A separate database was created to store the SAP master and dynamic data required for the labels. The system had several IDoc interfaces to SAP MM and SD, and an HTML interface to SAP EH&S. However, the transfer of such large quantities of data from SAP to the labelling system quickly reaches its limits.

One of the largest problems was the storage of redundant data. The time-controlled transfer of the master data from SAP meant it was not up to date. Not only that, the logic used to design the labels (e.g. the versions for hazardous substances or warning notices) was only stored in the labelling system and it was difficult for the SAP user to trace the individual steps.

"The solution we programmed ourselves," says IT Manager Martin Schmäzle, "had a very user-unfriendly frontend. For the CHT employees, it was like a black box because it was not possible to follow the programming logic. This and the many interfaces

to SAP, along with the separate, redundant data storage, made it impossible to work flexibly."

"We viewed this as an enormous optimisation potential," said SAP Competence Center Manager, Georg Müller, "and began working on a catalogue of requirements before searching for a suitable software provider."

The requirements defined for a fully-automated, SAP-integrated solution:

- All **master data** and **labelling logic** must still remain solely **within SAP**,
- It must be possible for CHT to **maintain** the entire system,
- It must be possible for CHT to **modify** and **design label layouts**,
- Good **monitoring options** and **error logging**,
- **Flexible connection** of various **printer types**,
- It must be possible to print hard copies, **create PDFs** and **send emails**,
- **Preview** and **display** of label without printing,
- **Archiving** and **reprint option**,
- It must be possible to integrate various label sizes into the process,
- **Dynamic merging** of several labels on a single sheet of A4 paper in order to
- prevent waste; depending on how many packages a delivery contains,



BEZEMA

- Very good **performance**,
- Printer control **across multiple locations**,
- **Incorporation of images** (logos, hazardous substance and dangerous goods symbols, handling symbols, etc.),
- Test print of **barcodes**,
- **User-friendly frontend**

The decision

According to Martin Schmäzle and Georg Müller, "finding a suitable provider turned out to be easier than expected. Together with NiceLabel, MembrainPAS LM fulfils all of our requirements. The lean solution in terms of the IT architecture is ideal for the CHT system landscape, and we can extend and modify it ourselves."

Implementation

MembrainPAS LM was implemented step by step. The first label tackled was the simplest from the point of view of the data mining logic and layout - the "QI label" for retention samples from the production process. Since the data mining and the layout were developed in MembrainPAS LM/NiceLabel, the label was created parallel to the corresponding "old" label as a pure PDF without a hard copy. The specialist department then checked the label created using MembrainPAS LM and compared it to the "old" one. This actually highlighted some errors in the "old" but still active label, which were immediately used to optimise the new label.

Once the label had been accepted by the specialist department, the label was rolled out among the various plants. The other types of label were converted to MembrainPAS LM in a similar step-by-step manner.

Test and production environments

Both the test and the production environments of MembrainPAS LM/NiceLabel run in the data centre in Tübingen. Users only access it via the SAP GUI.

MembrainPAS LM in action

MembrainPAS LM is used to create a wide range of labels at a total of six locations in Germany, Austria and Switzerland:

- QI labels
- Goods receipts labels
- Internal stock labels
- Hazardous substance labels
- Dangerous goods labels



Example of a hazardous substance label (Spanish)

- Customer dispatch labels
- Various special labels

The software runs centrally in two redundant data centres in Tübingen, and all of the necessary data are stored in SAP ERP. This includes both the master data from SD, MM and EH&S hosted in an external SAP system.

All of the labels are printed fully automatically according to the SAP SD, MM and QM processes, e.g. the hazardous substance and customer dispatch labels in the dispatch zone during picking.

The most appropriate printer is used automatically depending on the label and the process event to be triggered. MembrainPAS LM also supports the implementation of various types of printer determination logic, such as:

- SAP operator-based,
- Plant-based,
- Picking station-based,

- Dispatch location-based

CHT creates various label sizes - from A5 to A8. The size is selected automatically according to the size of the packaging (1000-litre container, 120-litre barrel, 1-kg sample, sack, etc.). The labels are printed on conventional colour laser printers with 3 to 4 motor shafts. Each shaft contains a different release paper, e.g. A4 with 2 x A5 labels or A4 with 4 x A6 labels or A5 paper with 4 x A7, etc.

To prevent waste, the labels are combined on a single preprinted form depending on the number of containers and the type of label to be printed.

"With MembrainPAS LM we introduced a high-performance, stable, flexible and scalable labeling system and are well positioned for the future."
Georg Müller, Head of SAP Competence Center to CHT Beitlich

Monitoring

All monitoring takes place via the SAP application log in the Membrain label monitor. CHT has also developed a cockpit to:

- Reprint automatically generated labels
- Manually fill out with data and print labels
- Manage printer determination and allocation
- Change the labels to the required language

Membrain: Label - Monitor

Subsystem: MEMBRAIN | Membrain-Server Produktion

Membrain Labelmanagement - Monitor

Von: Datum eingeben | bis: Datum eingeben | Anzeigeprofil: Intern | Max. Anzahl: 500 | Selektionsprofil: Alles | Selektionskriterien: Selektionskriterien

Version 1.3.20.0 | CHT | Letzte Aktualisierung: 11.12.2015 14:26:45

T	PDF	Art	Materialbeleg	Position	Werk	Material	Charge	Lieferung	Prüflos	System ID	Drucker	E-Mail	Anzahl	Erstellung	Aktualisierung	Dauer
✓	✓	GE_GHS_A6	4903214137	0002	DE02	00012965.000.003	0001409350			PRO	Membrain10/Kassette 2		1	11.12.2015 14:12:21	11.12.2015 14:12:25	00:00:04.21400
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✓	✓	GE_GHS_A6	4903214137	0001	DE02	00012965.000.003	0001409350			PRO	Membrain10/Kassette 2		4	11.12.2015 14:12:20	11.12.2015 14:12:23	00:00:02.63700
✓	✓	WE	4903214137	0001	DE02	00012965.000.003	0001409350			PRO	Membrain10/Kassette 3		4	11.12.2015 14:12:20	11.12.2015 14:12:22	00:00:01.73000
✓	✓	GE_GHS_A6	4903214132	0001	DE02	00082670.000.03W	0001409222			PRO	Membrain10/Kassette 2		35	11.12.2015 14:10:12	11.12.2015 14:10:12	00:00:09.84300
✓	✓	WE	4903214132	0001	DE02	00082670.000.03W	0001409222			PRO	Membrain10/Kassette 3		35	11.12.2015 14:10:12	11.12.2015 14:10:15	00:00:02.90000
✓	✓	X1_GHS_A6			DE02	00036047.100.021	0001404317	0080330770/000040		PRO	Membrain07/Kassette 3		1	11.12.2015 14:09:03	11.12.2015 14:09:03	00:00:00.09300
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✓	✓	GG_A5			DE02	00036047.100.021	0001404317	0080330770/000040		PRO	Membrain07/Kassette 4		1	11.12.2015 14:09:03	11.12.2015 14:09:05	00:00:02.14000
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✓	✓	X1_GHS_A6			DE02	00083293.100.003	0001404103	0080331515/000030		PRO	Membrain02/Kassette 2		1	11.12.2015 14:07:00	11.12.2015 14:07:00	00:00:00.26400
✓	✓	X1_GHS_A6			DE02	00083293.100.003	0001404103	0080331515/000030		PRO	Membrain02/Kassette 2		1	11.12.2015 14:07:00	11.12.2015 14:07:00	00:00:00.23400
✓	✓	X1_GHS_A6			DE02	00083293.100.003	0001404103	0080331515/000030		PRO	Membrain02/Kassette 2		1	11.12.2015 14:07:00	11.12.2015 14:07:00	00:00:00.23300
✓	✓	X1_GHS_A6			DE02	00083293.100.003	0001404103	0080331515/000030		PRO	Membrain02/Kassette 2		1	11.12.2015 14:07:00	11.12.2015 14:07:00	00:00:00.20300

Membrain monitor displaying the created labels, PDF request, etc

CHT R. BEITLICH

Since CHT R. Beitlich GmbH was founded in Tübingen over 60 years ago, the CHT/BEZEMA Group has developed into an international corporation focusing on specialty chemicals as a function generator, active substance and additive for industrial processes. Business areas: textile finishing, textile care, general industries, construction.



The company is part of the CHT/BEZEMA Group, has just under 2,000 employees and is represented by 20 companies in 120 countries.

FAST FACTS

>10.000

labels per day

50

active users on average

50

different label layouts in total

25

layouts are used on a daily basis

FURTHER INFORMATION

www.cht.com

Acceptance and overview

According to Martin Schmäzle and Georg Müller, "all of our colleagues who work with MembrainPAS LM are extremely satisfied with it. All of the functions are integrated within SAP and we now only have a user interface. We are much more flexible with the reprinting of automatically generated labels, and as far as identifying and reporting errors and making corrections is concerned, we are far more involved at the beginning of the process chain - e.g. during goods receipt postings; we are able to identify errors immediately in the monitor and correct the label without having printed it out first. In short, we have a much greater degree of automation than before."



Example of an internal label

Sicht "Membrain: Findung der Labelformate" anzeigen: Übersicht

Label	Einst.	Ab Menge	Layout	Li
DFÜ-/Wickleretikett	nicht relevant	0,00	DW_A6	
Gefahrstoffetikett	Einstufung nach EU	0,00	GE_EU_A8	GI
Gefahrstoffetikett	Einstufung nach EU	0,26	GE_EU_A7	GI
Gefahrstoffetikett	Einstufung nach EU	3,00	GE_EU_A6	GI
Gefahrstoffetikett	Einstufung nach EU	450,00	GE_EU_A5	GI
Gefahrstoffetikett	Einstufung nach EU	3.000,00		
Gefahrstoffetikett	Einstufung nach GHS	0,00	GE_GHS_A8	GI
Gefahrstoffetikett	Einstufung nach GHS	0,26	GE_GHS_A7	GI
Gefahrstoffetikett	Einstufung nach GHS	3,00	GE_GHS_A6	GI
Gefahrstoffetikett	Einstufung nach GHS	450,00	GE_GHS_A5	GI
Gefahrstoffetikett	Einstufung nach GHS	3.000,00		
Gefahrtgutetikett	nicht relevant	0,00	GG_A6	
Gefahrtgutetikett	nicht relevant	30,00	GG_A5	
Gefahrtgutetikett	nicht relevant	3.000,00		
Kundenetikett	nicht relevant	0,00	KE_A8	KI
Kundenetikett	nicht relevant	0,26	KE_A7	KI
Kundenetikett	nicht relevant	3,00	KE_A6	KI
Kundenetikett	nicht relevant	450,00	KE_A5	KI
Kundenetikett	nicht relevant	3.000,00		

Example of label determination according to the packaging fill volume

Kundenetikett nachdrucken

Auswahl

Lieferung: 80314423 bis []

Position: 210 bis []

Charge: [] bis []

Handling Unit: [] bis []

keine gedruckten SSCC-Nummern

Packpos. anzeigen

Etikettenauswahl

Kundenetikett

Gefahrtgutetikett

Gefahrstoffetikett

Gefahrstoffetikett auch in DE

Anzeigeoptionen

UN-Nr./Blösd

Druckparameter

Drucker: PDF

Anzahl Etiketten: 2

Reprint dialog box for a customer label

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