

smart-chart Release Notes

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2 smart-chart 9.0.2

2.1 What's new?

- Support of µPELT-ts Compatible with µPELT-ts gauges starting with serial number BP, BQ, BR, BS
- Support of micro-wave-scan 3
- Fixed: After an update for Microsoft Edge print-function is not working

2.2 Support of µPELT-ts

smart-chart offers everything you need to set-up a standardized global QC Management System. In **Standard Management** existing calibration-files including the guide-wave can be directly imported. For each layer the appropriate scales and limits can be defined.



Organizers can be created for clear sample identification and menu guided operation on the instrument. Measurement data is analyzed in **standardized reports**: Test report with history function - SPC reports for trend analysis.





Data analysis in smart-chart offers various possibilities to analyze your collected thickness measurement data for continuous improvement of your products.

- Simple standardized test-reports for e.g. a car can be generated.
- Compare the variation of defined checkzones over time for single layers as well as the total layer thickness.
- Compare areas such as left and right side of your car body to identify the influence of application.
- Compare different material on the same checkzone.



The new smart-chart supports μ PELT-ts gauges starting with serial number BQ, BR, BS, BP. For μ PELT-ts gauges 2017 and earlier please use PELT Manager.

2.3 Additional improvements & bug fixes

- Support of micro-wave-scan 3
- Fixed: After an update for Microsoft Edge print-function is not working
- Jetness scale dM can be displayed as absolute and delta value

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3 smart-chart 8.6.5

3.1 What's new?

- Acceptance Orange Peel Indicator of how many people would accept two attached parts in case of Orange Peel.
 - Available for: wave-scan 3 family wave-scan dual / II micro-wave-scan
- VW trafo for spectro2profiler existing standards of Volkswagen Group can be imported and used with spectro2profiler.
- Support of new spectro2guide family spectro2go XS with 5mm aperture
- Increased zoom functionality to zoom even further in general or tables only.
- New firmware for wave-scan 3 family, wave-scan dual / II, micro-wave-scan, spectro2guide, haze-gard i.

3.2 Acceptance Orange Peel – AOP

Acceptance Orange Peel, a measure if a difference in orange-peel between two attached parts is accepted is introduced. The scale was developed by BYK-Gardner and verified by a visual study of Audi.



Fig. 01: visual study of orange peel difference

In this study 153 pairs with different leveling have been compared and the probands had to tell if they would accept the difference between or not if present on an automobile. As a result, the pairs can be qualified in percentage of how many persons would accept the combination.



Fig. 02: Acceptance Orange Peel between 3 different panels



How to set up AOP:

1. By selecting the AOP in Standard Management



2. Define panel-match pairs in Organizer Management



3. AOP will be calculated once the data is saved into the measurement database.

wave-scan 3	Date Model 4/23/2024 Model	1 8	áse ick II	80	ath ath 1	Ca		1	rtal No 134568						
			81	N3	éu.	Wa	***	WY	wd	154		DOI	LW	510	40
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	and the second se	in the second	-												
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		ol Hab	6.0	6.0	_		_	_	_	_	_		_	_	
	War	inglow													571
		FailLow													42
Checkspre	Date	Status	N1	N2	¢u.	Wa	-	Wt	Wid	10.0		DOI	LW	SW	AO
Match to Standa	rd														
LINeed	4/25/241154.96AM	•	4.8		12.1	29.2	46.5			18.4	6.1	83.9	8.5	41.7	
REHood	4/23/241158/07 AM	٠	5.4	4.4	12.4	29.7	50.3	25.5	10.6	17.2	2.1	82.4	10.9	46.0	
REFERCIA	4/23/24115750.AM	٠	62	6.1	13.6	197	27.4	255	28.9	23.0	-24	82.6	17.0	245	
R14	4/23/241157.29 AM	٠	6.7		-8.4	11.4	21.2	29.7	30.4	21.1	-43	90.9	21.0	22.5	
REFancia	4/23/241156-6EAM	•	5.1	52	15.4	\$7.8	27.2	21.9	23.5	22.0	-1.8	86.7	12.6	217	
R.Chr	4/25/241158/29AM	•	5.0	5.4	11.2	10.5	20.1	15.8	22.5	15.8	-3.7	85.5	92	16.6	
LRFanda	4/23/241158:04 AM	•	5.4	55	15.9	15.1	25.9	22.7	24.9	22.9	-2.4	86.7	14.0	216	
L1 Off	4/23/24115545AM	٠	5.6	5.6	7.5	\$7,8	38.6	23.9	26.6	15.5	-84	68.7	963	28.7	
LIPHON	4/25/241155.29 AM	•	4.7	4.5	5.8	34.5	50.6	38.1	22.D	12.5	-8.5	88.9	30.4	28.5	
LtFancia	4/23/241158:14 AM	•	4.0	4.4	6.0	- 9.8	212	14.2	17.9	18.2	-2.8	\$1.6	7.4	22.4	
LTFØY	4/23/24115453.AM	•	6.5	6.3	12.2	22.4	303	27.5	307	27.2	-17	85.2	38.1	28.4	
REPH Dr	4/23/24115210AM	٠	5.8	5.8	6.4	35.9	52.9					88.2	34,9	38.9	
Groups															
HORIZONTAL	4/25/24/347/01 PM		5.1	4.2	12.2	25.4	467	255	17.8	16.8	6.6	83.1	9,7	43.8	
ROT	4/25/24.247.91 PM		5.8	5.8	11.0	15.2	24	22.4	26.5	18.9	-2.6	66.0	14.9	23.2	
LUFT	4/25/243/47.01 PM		53	53	187	15.8	28.4	213	24.4	18.9	-15	88.4	19.3	25.4	_
Panel Match - elli	acales &														
RRFaucia - Rt Qtr	4(25/24/247/31 PM		0.0	-0.2	-41	62	7.1	8.1	1.0	62	19	-2.0	2.4	5.1	\$21
LTFascio - Lt.Fdr	4/25/243/47/01 PM		-25	-1.9	-18.9	-126	-9.6	-13.3	-12.8	-50	-11	6.4	-90.7	-8.0	861
LRPanda - Lt Qtr	4/25/2434731PM		-0.2	-0.1	8.6	-2.1	-7.8	-12	-1.8	5.5	-2.0	-2.0	-2.5	-2.5	\$71
Rt Fascia - Rt Fdr	4/25/24/24/201 PM		-0.5	-0.4	5.1	83	6.2	-42	-1.5	19	1.8	-22	-4.0	2.2	611

3.3 VW trafo for spectro2profiler

In *Standard Management* existing interieur standards from Volkswagen Group can be imported. Open the import dialog and select as file type "VW trafo for spectro2profiler".

BYK smart-chart - Version 8.6.5 Release 319	773			-					
 Standard Manager 	nent Import in pr	ogress, please wait 💥							
Standards									
Search P	Open			×					
Various Standards	← → • ↑ 🖡 • VW > Wolfsburg >	← → × ↑ 🖡 × VW > Wolfsburg > Standards > 1 Original VW v 🖸 Sec							
Gr Solid DINmod	Organize * New folder			🗏 • 💷 😧					
	Name	Date modified	Туре	Size					
	L 6PS_4PK_Soul Auflage 9.mes	7/8/2022 10:35 AM	MES File	158 KB					
	TPD 2ZA Soul.mes	7/8/2022 10:35 AM	MES File	157 KB					
	File name: L 6PS_4PK_Sou	al Auflage 9.mes	~ VW trafe	for spectro2profiler (.mes) (*.mes)					
			Op	en Cancel					

Fig. 03: Import dialog for "VW trafo for spectro2profiler"

Once imported, the standards can be used in smart-lab for spectro2profiler to compare existing measurements against. They cannot be sent to the instrument and online measurement is not possible.

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spectro2profiler - New	/ Project*											
Save Browse Project.		Add 1										
New Project	Color Co	mponents	Statutic 🔽	Tolerances	A	er 1	hsolut	e Colo	r Abs	olute Br	∆ Color Ø	
C L-6PS / 4PK Konzernschwarz Sou	_							_	-			_
Festserie 001	Table	Line	Scatter x/y M	tamerism Sp	lectrur	2	20/30		111		Print	bp
	L-6PS/	L-6PS / 4PK Konzernschwarz Sou				1	D65/10	0 45°C	:0"			
						L*	a*	b*	C*	Ha		
			Absolute Values			24.91	-0.28	-0.72	0.77	248.34		
			Fail High		1.50	1.00	1.00	1.00				
			Warning High		1.05	0.70	0.70	0.70				
			Warning Low			-0.70	-0.70	-0.70				
			FairLow	2D/3D Scales	O Scales		D65/10 45'c0'					
	Checkzone *	Date	Status	Images	dE*	dL*	da*	db*	dC*	dH*		
	Match to Stan	dard								-		
	SAMPLE 001	3/21/24 2:27:23	PM 😐		2.20	-1.55	0.51	1,46	0.01	-1.55		

Fig. 04: Use imported standard in smart-lab for spectro2profiler to compare color data

3.4 Additional improvements & bug fixes

- Import of ColorCARE standards with the file extension *.asc implemented. Measurement data and standard name are imported. Tolerances must be set manually in smart-chart.
- Increased zoom possibilities to zoom even further.
- Multiple tolerance groups fix and optimize advanced options during data transfer.
- BYK-mac i lab: panel match was not recalculated when changing view from weighted to unweighted and vice versa.
- smart-lab for solid color: copy paste of standards was always inactive
- smart-lab for color2view: add measurements to existing standards was not possible
- Imported standards from OnColor were displayed shifted wrongly.
- Update to Microsoft .net8

3.5 New Firmware included with smart-chart 8.6.5

To support the new smart-chart functions, also new firmware versions are needed.

wave-scan 3 family 1.6.0.31843

- support of organizers with acceptance index
- FAM optimization for FAM-values < 5
- Autorotation of display can be deactivated.
- FFT-scales have been calculated though error message was displayed, and no structure spectrum has been calculated.

wave-scan dual / wave-scan II / micro-wave-scan 5.83

- JLR_OP & Changan OP has been calculated though error message was displayed, and no structure spectrum has been calculated.
- FAM optimization for FAM-values < 5

spectro2guide family 2.5.2.30331

• Support spectro2guide XS with 5mm aperture.



