

# smart-chart 8.6.5

## 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.

## 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.

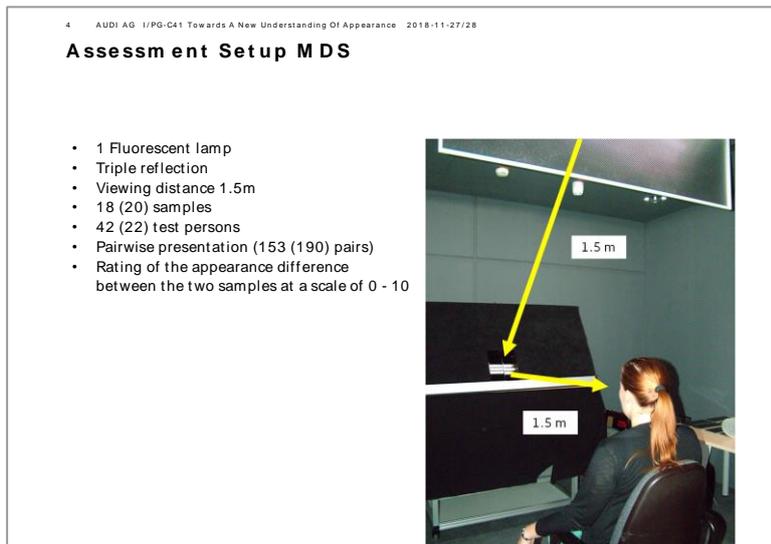


Fig. 01: visual study of orange peel difference

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.

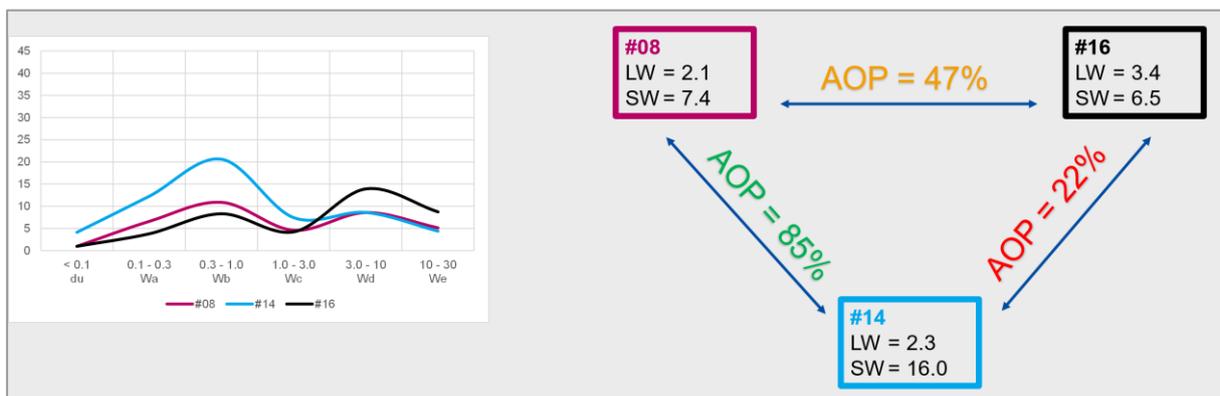
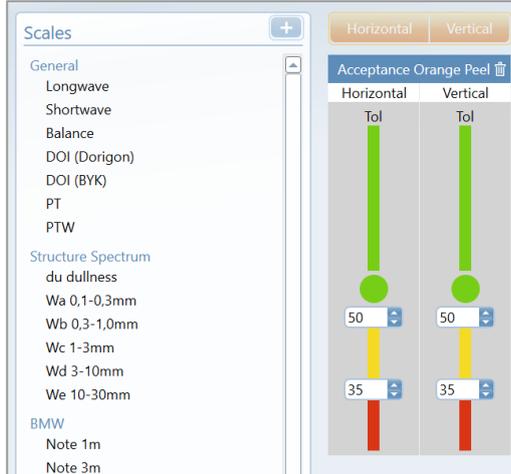


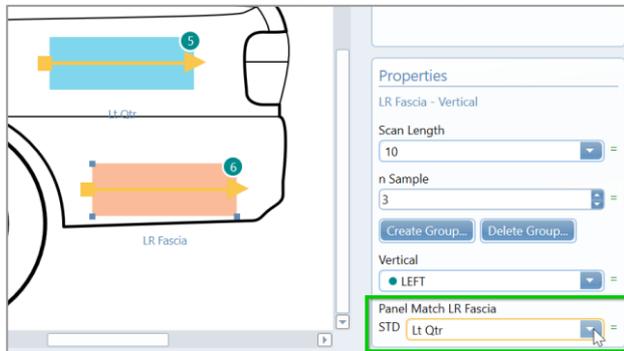
Fig. 02: Acceptance Orange Peel between 3 different panels

### 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.

| Instrument                        |                     | Date      | Model   | Color    | Booth   | Comment | Serial No |             |       |      |      |      |       |      |     |   |     |    |     |     |
|-----------------------------------|---------------------|-----------|---------|----------|---------|---------|-----------|-------------|-------|------|------|------|-------|------|-----|---|-----|----|-----|-----|
| wave-scan 3                       |                     | 4/23/2024 | Model 1 | Black II | Booth 1 |         | 1234568   |             |       |      |      |      |       |      |     |   |     |    |     |     |
|                                   |                     |           |         |          |         |         |           | N1          | N3    | du   | Wa   | Wb   | Wc    | Wd   | We  | B | DOI | LW | SW  | AOP |
| <b>Horizontal</b>                 |                     |           |         |          |         |         |           |             |       |      |      |      |       |      |     |   |     |    |     |     |
|                                   |                     |           |         |          |         |         |           | Fail High   | 3.2   | 3.7  |      |      |       |      |     |   |     |    |     |     |
|                                   |                     |           |         |          |         |         |           | Warning Low |       |      |      |      |       |      |     |   |     |    | 50% |     |
|                                   |                     |           |         |          |         |         |           | Fail Low    |       |      |      |      |       |      |     |   |     |    | 40% |     |
| <b>Vertical</b>                   |                     |           |         |          |         |         |           |             |       |      |      |      |       |      |     |   |     |    |     |     |
|                                   |                     |           |         |          |         |         |           | Fail High   | 6.0   | 6.0  |      |      |       |      |     |   |     |    |     |     |
|                                   |                     |           |         |          |         |         |           | Warning Low |       |      |      |      |       |      |     |   |     |    | 50% |     |
|                                   |                     |           |         |          |         |         |           | Fail Low    |       |      |      |      |       |      |     |   |     |    | 40% |     |
| Checkzone                         | Date                | Status    | N1      | N3       | du      | Wa      | Wb        | Wc          | Wd    | We   | B    | DOI  | LW    | SW   | AOP |   |     |    |     |     |
| <b>Match to Standard</b>          |                     |           |         |          |         |         |           |             |       |      |      |      |       |      |     |   |     |    |     |     |
| Lt Hood                           | 4/23/24 11:54:36 AM | ●         | 4.8     | 4.1      | 12.1    | 29.2    | 46.5      | 21.5        | 17.1  | 16.4 | 6.1  | 83.9 | 8.5   | 41.7 |     |   |     |    |     |     |
| Rt Hood                           | 4/23/24 11:58:07 AM | ●         | 5.4     | 4.4      | 12.4    | 29.7    | 50.9      | 25.5        | 18.6  | 17.2 | 7.1  | 82.4 | 10.9  | 46.0 |     |   |     |    |     |     |
| Rt Fascia                         | 4/23/24 11:57:50 AM | ●         | 6.2     | 6.1      | 13.6    | 19.7    | 27.4      | 25.5        | 28.9  | 23.0 | -2.4 | 87.6 | 17.0  | 24.5 |     |   |     |    |     |     |
| Rt Fdr                            | 4/23/24 11:57:29 AM | ●         | 6.7     | 6.5      | 8.4     | 11.4    | 21.2      | 29.7        | 30.4  | 21.1 | -4.3 | 90.9 | 21.0  | 22.3 |     |   |     |    |     |     |
| RR Fascia                         | 4/23/24 11:56:46 AM | ●         | 5.1     | 5.2      | 15.4    | 17.1    | 27.2      | 21.9        | 23.5  | 22.0 | -1.8 | 86.7 | 12.6  | 21.7 |     |   |     |    |     |     |
| Rt Qtr                            | 4/23/24 11:56:29 AM | ●         | 5.0     | 5.4      | 11.2    | 10.9    | 20.1      | 13.8        | 22.5  | 15.8 | -3.7 | 89.8 | 9.2   | 16.6 |     |   |     |    |     |     |
| LR Fascia                         | 4/23/24 11:56:04 AM | ●         | 5.4     | 5.5      | 15.9    | 15.1    | 25.9      | 22.7        | 24.9  | 20.9 | -2.4 | 86.7 | 14.0  | 21.6 |     |   |     |    |     |     |
| Lt Qtr                            | 4/23/24 11:55:45 AM | ●         | 5.6     | 5.6      | 7.1     | 17.3    | 33.6      | 23.9        | 26.6  | 15.5 | -0.4 | 88.7 | 16.3  | 28.7 |     |   |     |    |     |     |
| Lt Frt Dr                         | 4/23/24 11:55:29 AM | ●         | 4.7     | 4.9      | 5.8     | 14.6    | 30.6      | 18.1        | 22.0  | 12.5 | -0.5 | 89.9 | 10.4  | 28.1 |     |   |     |    |     |     |
| Lt Fascia                         | 4/23/24 11:55:14 AM | ●         | 4.0     | 4.4      | 6.8     | 9.8     | 21.2      | 14.2        | 17.9  | 18.2 | -2.8 | 91.6 | 7.4   | 20.4 |     |   |     |    |     |     |
| Lt Fdr                            | 4/23/24 11:54:53 AM | ●         | 6.5     | 6.3      | 17.7    | 22.4    | 30.9      | 27.5        | 30.7  | 27.2 | -1.7 | 85.2 | 18.1  | 28.4 |     |   |     |    |     |     |
| Rt Frt Dr                         | 4/23/24 11:57:10 AM | ●         | 5.8     | 5.8      | 6.4     | 16.9    | 32.9      | 21.1        | 27.3  | 17.5 | -0.7 | 89.2 | 14.9  | 30.9 |     |   |     |    |     |     |
| <b>Groups</b>                     |                     |           |         |          |         |         |           |             |       |      |      |      |       |      |     |   |     |    |     |     |
| HORIZONTAL                        | 4/25/24 3:47:01 PM  | ■         | 5.1     | 4.2      | 12.2    | 29.4    | 48.7      | 23.5        | 17.8  | 16.8 | 6.6  | 83.1 | 9.7   | 43.8 |     |   |     |    |     |     |
| RIGHT                             | 4/25/24 3:47:01 PM  | ■         | 5.8     | 5.8      | 11.0    | 15.2    | 25.8      | 22.4        | 26.5  | 19.9 | -2.6 | 88.8 | 14.9  | 23.2 |     |   |     |    |     |     |
| LEFT                              | 4/25/24 3:47:01 PM  | ■         | 5.3     | 5.3      | 10.7    | 15.8    | 28.4      | 21.3        | 24.4  | 18.9 | -1.5 | 88.4 | 13.3  | 25.4 |     |   |     |    |     |     |
| <b>Panel Match - all scales Δ</b> |                     |           |         |          |         |         |           |             |       |      |      |      |       |      |     |   |     |    |     |     |
| RR Fascia - Rt Qtr                | 4/25/24 3:47:01 PM  | ■         | 0.0     | -0.2     | 4.1     | 6.2     | 7.1       | 8.1         | 1.0   | 6.2  | 1.9  | -3.0 | 3.4   | 5.1  | 83% |   |     |    |     |     |
| Lt Fascia - Lt Fdr                | 4/25/24 3:47:01 PM  | ■         | -2.5    | -1.9     | -10.9   | -12.6   | -9.6      | -13.3       | -12.8 | -9.0 | -1.1 | 6.4  | -10.7 | -8.0 | 86% |   |     |    |     |     |
| LR Fascia - Lt Qtr                | 4/25/24 3:47:01 PM  | ■         | -0.2    | -0.1     | 8.8     | -2.1    | -7.8      | -1.2        | -1.8  | 5.5  | -2.0 | -2.0 | -2.3  | -7.1 | 93% |   |     |    |     |     |
| Rt Fascia - Rt Fdr                | 4/25/24 3:47:01 PM  | ■         | -0.5    | -0.4     | 5.1     | 8.3     | 6.2       | -4.2        | -1.5  | 1.9  | 1.8  | -3.2 | -4.0  | 2.2  | 91% |   |     |    |     |     |

## VW trafo for spectro2profiler

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

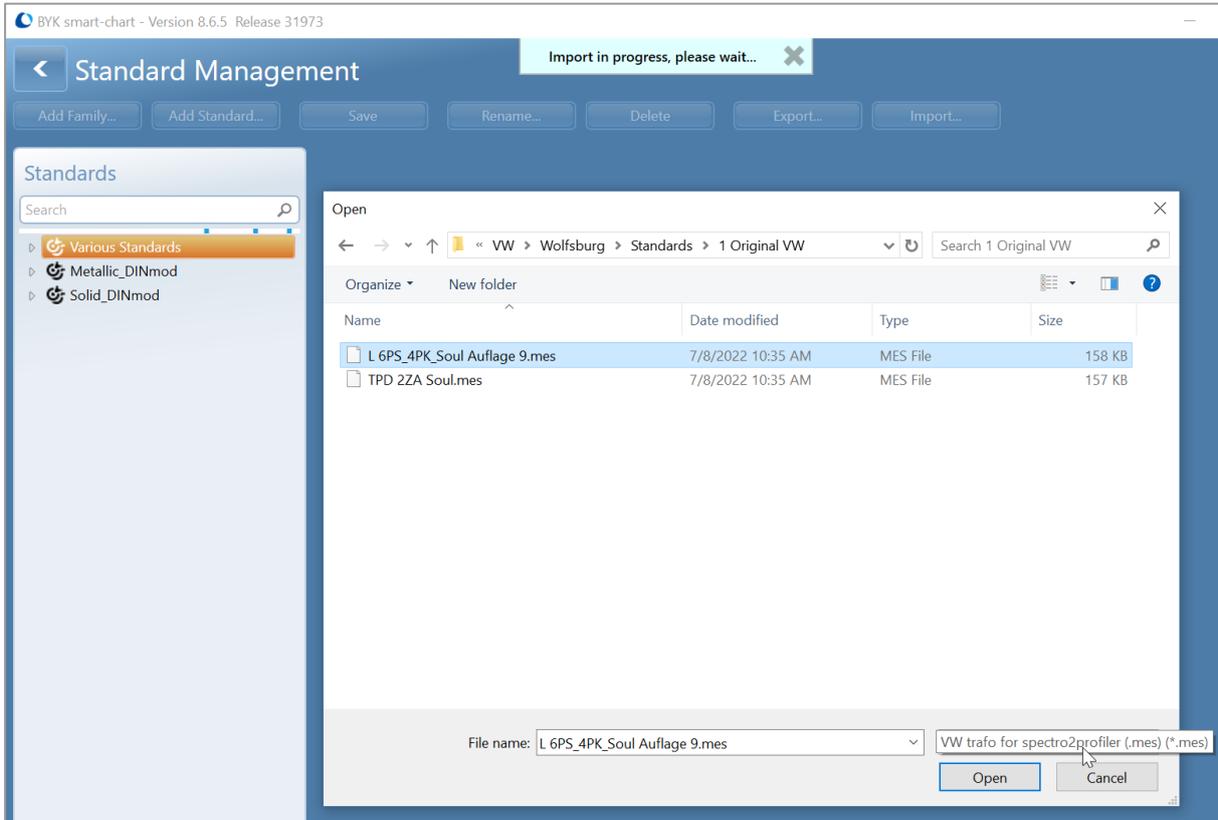


Fig. 03: Import dialog for “VW trafo for spectro2profiler”

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.

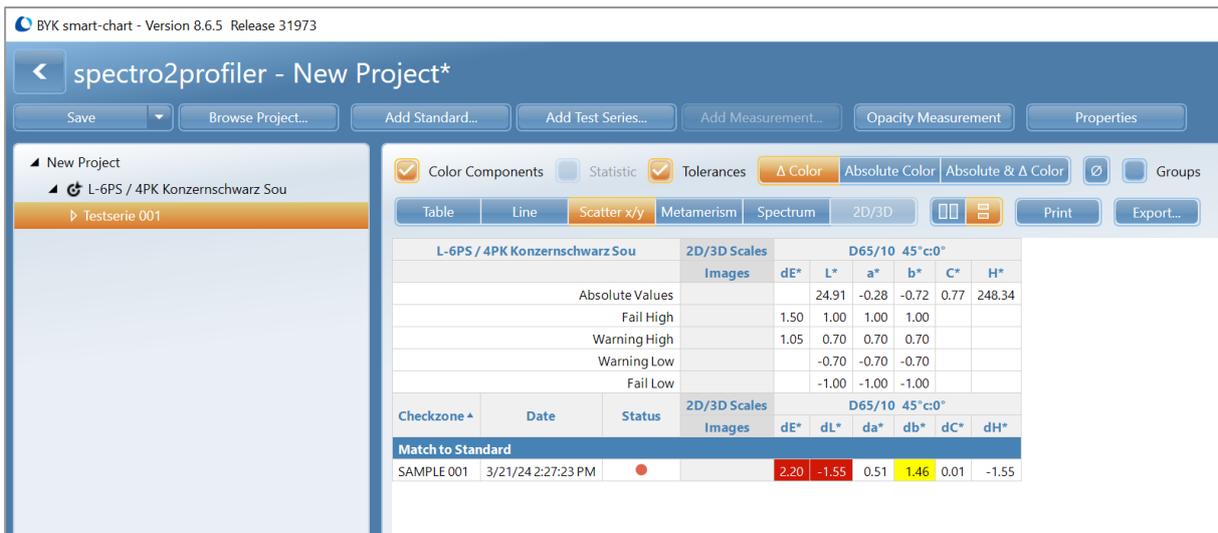


Fig. 04: Use imported standard in smart-lab for spectro2profiler to compare color data

## Additional improvements & bug fixes

- 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

## 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.

