

QtiSAS v. 2020-07-06 Release Information

QtiSAS | Project Explorer:

- ... behavior boosted;
- ... improved presentation of widgets, specially in "Maximized" regime...;
- ... [1] default mode of "View Windows" option is changed to "None" from "Windows in Active Folder";

QtiSAS | Color Maps:

- ... functionality in Spectrogram Plots is strongly improved;
- ... [2] Log&Lin buttons change color scale and Color Bar;
- ... [3] 7 default color maps integrated;
- ... [4] "Update" button implemented to Color Map Editor (re-read matrix limits);

QtiSAS | Graph | Automatic Layout:

- ... button logic is modified;
- ... [5] Spectrogram's Geometry is proportionally maximized correspondingly to matrix dimension;
- ... [6] 2D plots are proportionally maximized if "Keep aspect ratio" is selected;

QtiSAS |Log and Lin buttons:

- ... [7] also in Graph Toolbars;
- ... [2] work now also for Spectrograms (Color Fill);

QtiSAS | Graph | Tex Equation Editor:

- ... changed server for online-compilation;
- ... [8] new server: latex.codecogs.com;
- ... size of png-images of Equations could be controlled by "\dpi{150}" command;

QtiSAS | Graph | Add/Remove Curve interface:

- ... [9] added check-box "+yErr";
- ... to add also Y-Error-bars with corresponding Dataset;
- ... by default: Cap Width of error bars is 0;
- ... by default: Line Width is defined by defined line width;

[10] QtiSAS |Graph | Add Error Bars interface: improved behavior of "Existing Column":

QtiSAS



QtiSAS v. 2020-07-06 Release Information

DAN v. 4.0:

... interface and logic are strongly optimized;... Mask Tools moved from DANP to DAN;... Merge interface improved;



DAN



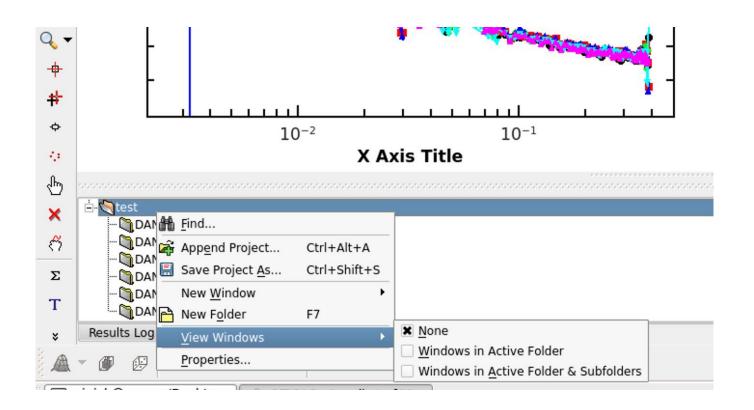
QtiSAS v. 2020-06-07 Release Information

FIT 4.1: ... interface is optimized;

FIT

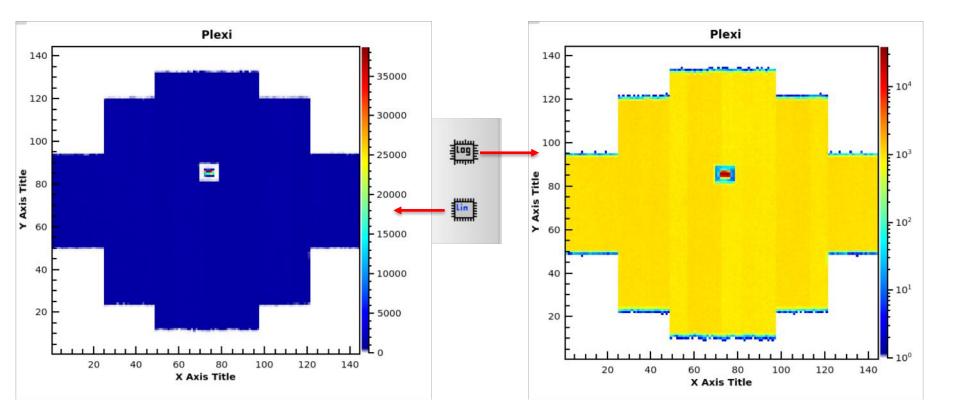
QtiSAS | Project Explorer:

... [1] default mode of "View Windows" option is changed to "None" from "Windows in Active Folder";



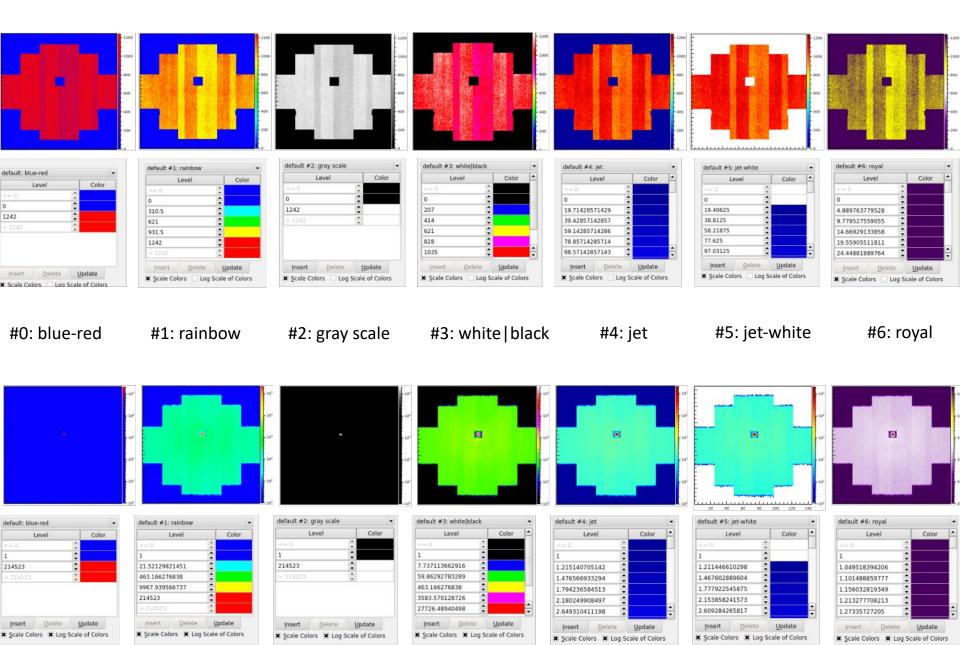
QtiSAS | Color Maps:

... [2] Log & Lin buttons change color scale and Color Bar;



QtiSAS | Color Maps:

... [3] 7 default color maps integrated;



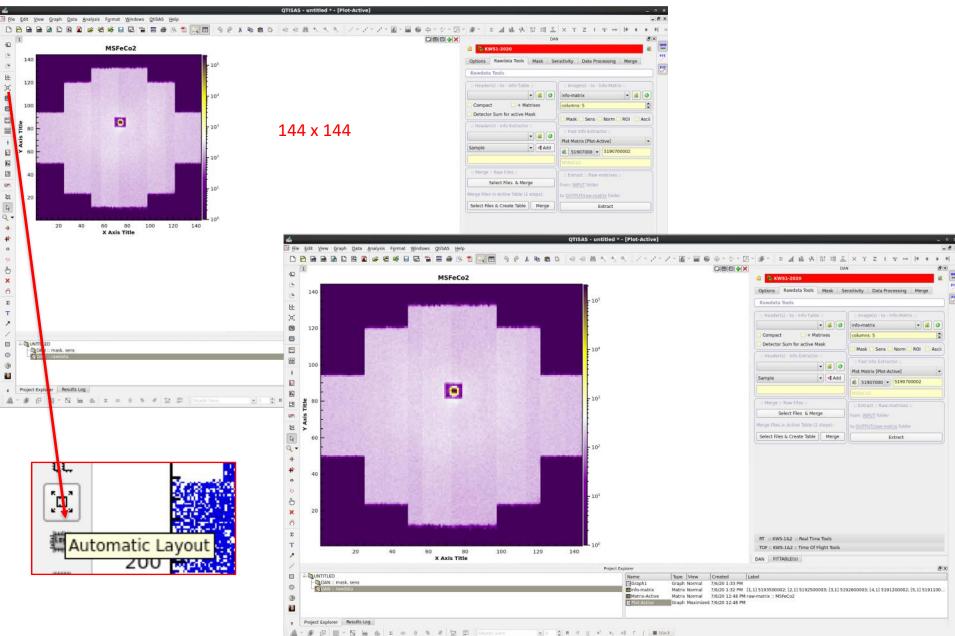
QtiSAS | Color Maps:

... [4] "Update" button implemented to Color Map Editor (re-read matrix limits);

| 🖻 📘 Layer1 🖉 🔀 Matrix-Active | Axes Values Colors | Contour Lines Labels | |
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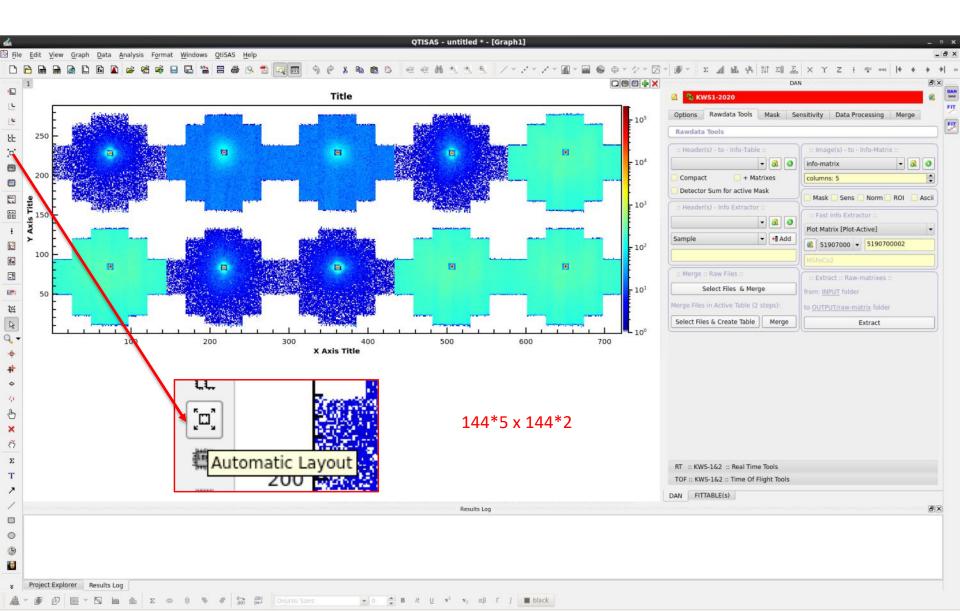
QtiSAS | Graph | Automatic Layout:

... [5] Spectrogram's Geometry is proportionally maximized correspondingly to matrix dimension;

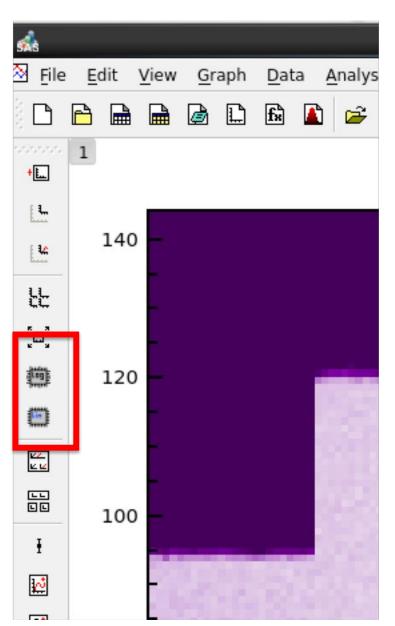


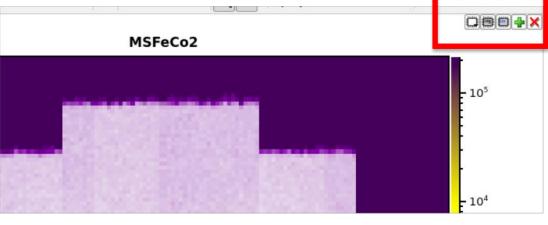
QtiSAS | Graph | Automatic Layout:

... [5] Spectrogram's Geometry is proportionally maximized correspondingly to matrix dimension;



QtiSAS | Log and Lin buttons: ... [7] also in Graph Toolbars;





| AG | | tiSAS - Add/Remove curves | |
|--|-----------------|----------------------------|--------------------|
| New curves style | 🖍 Line + Symbol | ▼ 🔛 Contour - Color Fill ▼ | |
| Axes | Bottom | ▼ Left ▼ | |
| Available data 🔹 | | Graph contents 🕇 🕹 | |
| 🕀 🎹 Table1 | data | Matrix-Active | Plot Associations. |
| OAN :: rawdata Matrix-Active info-matrix | | +yErr | Edit <u>R</u> ange |
| 🖻 🍓 DAN :: mas I mask | | 4 | Edit Function |
| | | | ОК |
| | | | Close |
| | | | Show Range |
| | | | |
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QtiSAS | Graph | Tex Equation Editor:

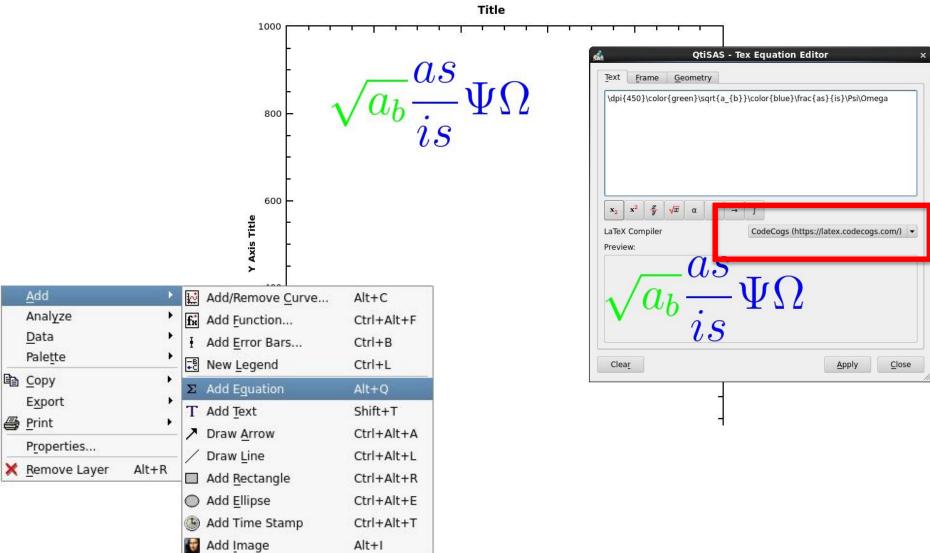
L Add Layer

Alt+L

... changed server for online-compilation;

... [8] new server: latex.codecogs.com;

... size of png-images of Equations could be controlled by "\dpi{150}" command;



QtiSAS | Graph | Add/Remove Curve interface:

... [9] added check-box "+yErr";

... to add also Y-Error-bars with corresponding Dataset;

... by default: Cap Width of error bars is 0;

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| sks (| QtiSAS - Add/Remove curves | × |
|----------------------------------|----------------------------|--------------------|
| New curves style 🦯 Line + Symbol | ▼ Contour - Color Fill ▼ | |
| Axes Bottom | ▼ Left ▼ | |
| Available data * | Graph contents 🕇 🕹 | |
| 🖶 🎹 Table1 🖃 🄄 DAN :: rawdata | Matrix-Active | Plot Associations |
| Matrix-Active | +yErr | Edit <u>R</u> ange |
| DAN :: mask, sens | | Edit Function |
| | | ОК |
| | | Close |
| | | Show Range |
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QtiSAS | Graph | Add/Remove Curve interface:

... added check-box "+yErr";

DejaVu Sans

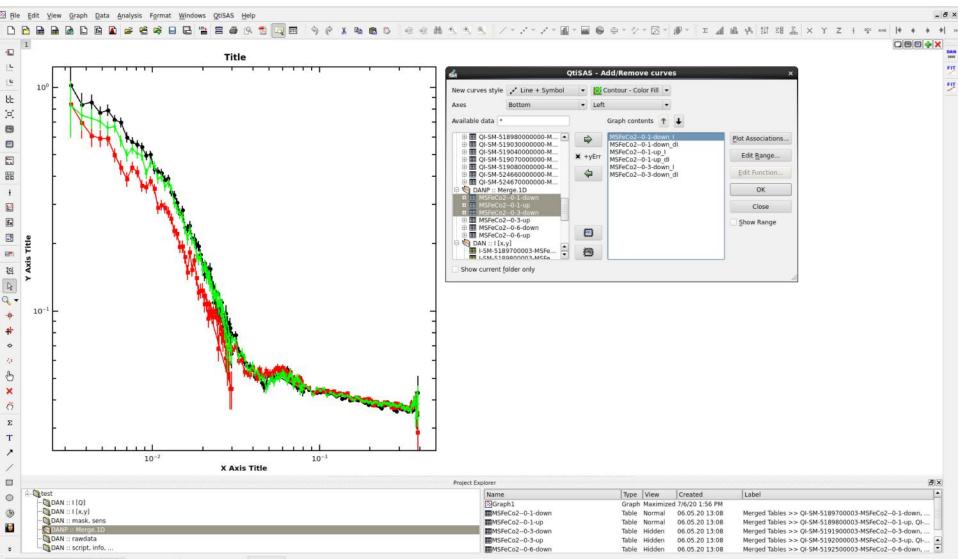
11

... [9] to add also Y-Error-bars with corresponding Dataset;

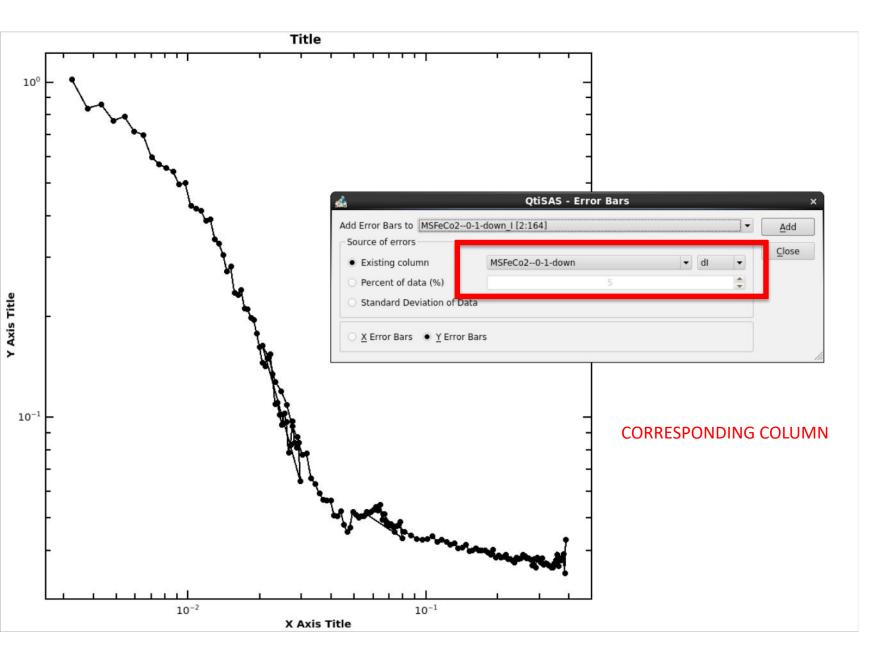
... [9] by default: Cap Width of error bars is 0;

black

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[10] QtiSAS |Graph | Add Error Bars interface: improved behavior of "Existing Column":





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DAN v. 4.0:

... interface and logic are strongly optimized;... Mask Tools moved from DANP to DAN;... Merge interface improved;



DAN

| P. KWS1-2 | 020 | | | |
|--|---|------------------------------------|-----------------|---------|
| Options Ray | data Tools Mas | k Sensitivity | Data Processing | g Merge |
| KWS1-2020 | | t & Data-Processii tandard Mode | 552 1 | 808 |
| Data :: Input an | d Output Folders | | | |
| SA(N)S Instru | ment :: Configur | ration | | |
| Units Units File(s):: Structur Header:: Map Selector:: Wave Detector:: Dead Detector:: Cent Absolute Calibri: Transmission:: M Resolution:: Opt | L ngth I-Time er ation:: Options Method | | | |
| ., D, Offset | m | | | |
| ime: Duration | sec | | | |
| lime: TOF,RT | μsec | | | , |
| Selector | Number | | | |
| | | | | |

New structure of Instrument Configuration Options

| Options | Rawdata Tools | Mask | Sensitivity | Data Processing | Merge |
|----------------------------------|-------------------|------------|---------------|-----------------|-------|
| Select [C | reate] SA(N)S Ins | trument & | Data-Processi | ng-Mode | |
| KWS1-2 | • | (SM) Stan | dard Mode | • | 20 |
| Data :: In | put and Output F | olders | | | |
| SA(N)S I | instrument :: C | onfigurati | ion | | |
| Header:: | Мар | | | | |
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| | le" Header La | | {* Detector D | ata for | |
| | | | #-Lines | #-1 | Pos |
| [Experim | ent-Title] | 3 | | s 1 | |
| [User-Nai | | 5 | | 56 | |
| [Sample- | Run-Number] | 11 | | 1 | |
| [Sample- | Title] | 16 | | s 1 | |
| | Thickness] | 34 | 5 | 3 | |
| | Position-Number | 34 | | 1 | |
| [Date] | | 5 | | s 8 | |
| [Time] | | 5 | | 59 | |
| [C] | | 21 | | 1 | |
| [D] | | 28 | U | 2 | |
| [D-TOF] | | 28 | | 2 | |
| C,D-Offs | et] | 28 | | 1 | |
| [CA-X] | | 21 | | 3 | |
| [CA-Y] | | 21 | | 4 | |
| [SA-X] | | 34 | | 4 | |
| [SA-Y] | | 34 | | 5 | |
| [Sum] | | 62 | | 1 | |
| [Selector | 1 | 49 | | 1 | |
| [Lambda |] | {la | mbda=} | sA1 | |
| [Delta-La | mbda] | cor | nst | 0.1 | |
| [Duration | 1] | 58 | | 1 | |
| [Duration | n-Factor] | 34 | | 6 | |
| [Monitor- | 1] | 49 | 1 | 2 | |
| | 2] | 49 | | 3 | |
| Monitor- | | | | 12 | |
| | 3[Tr[ROI] | 49 | | 4 | |
| [Monitor- [Monitor- [Comme | | 49 | | 4 s!1 | |

| | ensitivity Data Processing Merge |
|---|-----------------------------------|
| Rawdata Tools | :: Image(s) - to - Info-Matrix :: |
| Compact + Matrixes | columns: 3 |
| Detector Sum for active Mask :: Header(s) - Info Extractor :: Image: strate strate strate Image: strate | Mask Sens Norm ROI Asci |
| :: Merge :: Raw Files :: | :: Extract :: Raw-matrixes :: |
| Select Files & Merge | from: INPUT folder |
| Merge Files in Active Table (2 steps): | to OUTPUT/raw-matrix folder |
| Select Files & Create Table Merge | Extract |

Rawdata Tools: rearranged;

| Options | Rawdata Tools | Mask | Sensitivity | Data Pr | ocessing | Merge | 1 |
|------------|-------------------------|-------------|-----------------|------------|-------------|---------------|------|
| Rawdata T | bols | | | | | | |
| RT :: KW | (5-162 :: Real | Time Too | ds | | | | |
| RT : | : Sum vs Number | :: Read | | RT :: Add | i :: by Sel | lection | |
| RT TO | is Merge Files :: fn | om Active | Table | | Me | erge Files fi | irst |
| + RT : | Merge Frames : | Linear | | | 1 | | 1 |
| 2 + RT : | Merge Frames : | Progress | ive | | 1.000 | o | - |
| - + RT : | Split Frames | | | | 1 | 1024 | 1 |
| Ratio of G | eometrical Prog | ession ap | plied in experi | iment: | 1.000 | 0 | 1 |
| Oscillator | y RT / sinchroniz | ation with | sample enviro | nment | 🔲 yes | s7 | |
| RT :: All | | | | | | | |
| 8-3 | | RT :: All S | selected Steps | :: Process | ing | | |
| Prefix | | Suf | fix: | | Delete I | files (rt1r | t21 |

| Opti | ions | Rawdata Tools | Mask | S | ensitivity | D | ata Proce | ssing | Me | erge | |
|------|---------------------------|-------------------|------------|-----|------------|----------|-----------|----------|-----|------|----|
| Raw | data | Tools | | | | | | | | | |
| T | :: KM | S-162 :: Real Tim | e Tools | | | | | | | | |
| roi | F :: K | W5-1&2 :: Time | Of Flight | Tor | ols | | | | | | |
| | TOP | : :: Sum vs Numbe | r :: Read | | | | TOF :: Me | rge Fil | es | | |
| 'n | OFIR | T I: Tools | | | | | | | | | |
| 1 | + TOF :: Shift Frames | | | 3 | | | | | | | \$ |
| 2 | 2 + TOF :: Collapse Wings | | | 1 | | | | | | - | |
| F | • TO | F :: Remove Frame | 15 | 2 | | | | | | | : |
| 4 | + TC | F :: Merge Frames | | 4 | | | | | | | : |
| 5 | + TO | F :: Split Frames | | λ= | 4.55 | Δλ= | 0.14 | 1 | \$ | 1024 | •• |
| | of : / | All steps | TOF :: All | Sel | ected Ste | eps :: I | rocessin | ıg | | | |
| | | e tof1tof4 files | | | Ren | nove | 12345' f | rom file | nun | nber | |
| | Prefix | c | | | Suf | fix: | | | | | |

RT :: KWS-1&2 :: Real Time Tools

TOF :: KWS-1&2 :: Time Of Flight Tools

TOF :: KWS-1&2 :: Time Of Flight Tools

|)ptions Rawdata T | ols Mask | Sensitivity | Data Processing | Merge |
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| Select Active Area o | f Detector | - | | |
| Active Mask-Matrix :: (| Generate Open | Select | | |
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| 🗙 Edge | | 🗙 Beam | -Stop Direct-Bea | m |
| Y | | x | Y | |
| 1 + + 14 + | Left-Bottom | 68 | -ф- 80 🔶 Lef | t-Bottom |
| 144 🗘 🔶 131 🔹 | Right-Top | 78 | -ф- 90 🔹 Rig | ht-Top |
| Rectangle :: Shape of I | Edge 🔻 | Rectangl | e :: Shape of Bean | n-Stop |
| Dead" rows | 144 1 49:120 | 144.07.144 | ;44-49-120-121;44 | 40.24.25 |
| Dead" rows | 144-1-48;120 |)-144-97-144, | ,44-49-120-121,44 | |
| hriangular mask(s) | | | | ۰- ج |
| nriannillar mackici | | | | -0 |

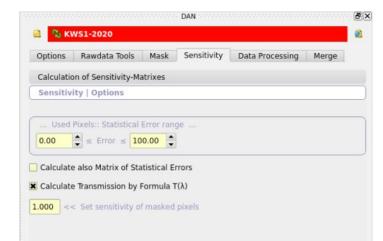
Mask Interface: rearranged a bit;

New: Mask Tools moved from QtiKWS|DANP

| KWS1-2020 | |
|--------------------------------------|---|
| Options Rawdata Tools Mask Se | nsitivity Data Processing Merge |
| Select Active Area of Detector | |
| Mask Tools | |
| | |
| Active Mask in Mask interface O Matr | rix in active Graph _O Select Matrix: |
| mask | |
| | |
| Center | Mask :: Conditions |
| Xc: 73.0 🗘 Yc: 85.0 🔹 🗢 | 0 - Inside - 🐯 |
| | |
| Mask :: Rectangle | Mask :: Ellipse |
| width: 10.0 🚔 Hight: 10.0 🚔 🛞 | width: 10.0 🗘 Hight: 10.0 🌲 🚳 |
| | |
| Mask :: Sector :: φ | Mask :: Ellipse :: Shell |
| from: 0.0 ° 🛟 to: 10.0 ° 🛟 🧐 | Ellipse's shell thickness: 10.0 🚔 🚳 |
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| Options | Rawdata Tools | Mask | Sensitivity | Data I | Processing | Merge | 1 |
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| Calculat | ion of Sensitivity | y-Matrixe | 25 | | | | |
| Active S | ensitivity-Matrix :: | Generate | Open Selec | t | | | |
| sens | | | 👻 🚱 Up | date | 📀 New | | 0 |
| ¥ In | out File Numbers a | nd Transn | nission | | | | |
| 🗙 In | put File Numbers a | nd Transr | | kiglass (| H2O,] | | |
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| × In 3 | put File Numbers a | nd Transr | # Ple: | | H2O,] | | |

Sens Interface: rearranged a bit;



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|---------------------|--|
| KWS1-2020 | |
| Options Rawdat | a Tools Mask Sensit vity Data Processing Marge |
| Table of Configur | ations :: Data Processing |
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| Beam Size | |
| Abs.Cal. [#-FS] | |
| Abs.Cal. [#-EB] | |
| Abs.Cal. [#-BC] | |
| B D-[FS EB][m] | |
| 🕲 μ-[FS] | |
| Tr-[FS Att] | |
| Ractor | |
| 2 #-"Center" | |
| 🕲 X-center | |
| Notenter | |
| 🗄 Mask. Matrix | mask 👻 |
| 🖑 Sens. Matrix | sens 🔻 |
| | |
| Tr [EC-to-EB] | 1.000 |
| 🗄 Mask Matrix [Tr] | mask 👻 |
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| Script-Table Tools | |
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| | 17.11 |
| Process active Scri | pt-Table |
| I [x,y] I [Q | y] dI [x,y] Q [x,y] >>File •>Project |
| | |
| Ι[Q,φ] Ι[Q | x] σ[x,y] dQ [x,y] |
| Options :: Data Pro | cessing |

Data Processing Interface: rearranged a bit;

Data Processing Options: new view structure

| Table of Configurations | | | | |
|--|--------------------|---------------|----------------|---------------------|
| Options :: Data Proc | | • | | |
| options in participation | | | | |
| Options :: [2D] | Options :: | [1D] | Options :: | Script ⁻ |
| Condition :: Use "Sa | mple Position Num | ber" as a co | ondition | |
| Condition :: Use "Att | enuator" as a conc | dition | | |
| Condition :: Use "Be | am-Center/Detecto | pr-position" | as a condition | |
| Condition :: Use "Po | | | | |
| Script :: Reread old | | | w runs] | |
| Script :: Transmissio | | | | |
| Script :: Find center | | | | |
| | calculate cente | | | |
| X Automatic generatio | | olate [I(Q) c | ase] | |
| Automatic merging | | | | |
| Use sample info as I | | put names | | |
| Rewrite output [No i Skip transmission co | | | | |
| Sort output widgets | | oldors | | |
| Sort output widgets | to corresponding r | orders | | |
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| 🔁 KWS1-2020 | | | |
|---|----------------------------|--|--|
| ptions Rawdata Tools Mask Sensitivity | Data Processing Merge | | |
| Merging Options :: | Smart me.g., . | | |
| 0 💮 Number of tables for merging | 1 Reference column | | |
| 0 💮 Number of table-sets for merging | Const v normalization | | |
| 30% 🔄 Overlap control | 0 (plus) left-side points | | |
| * Filter (Wild Card) | 0 (plus) right-side points | | |
| Indexing [Output] | scale error-bars too | | |
| Read from active Table | Save as a new Table | | |
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| er Merring: | | | |
| er Merging: remove first: 0 points Merge [project] | remove last: 0 points | | |

Merge:

new buttons Merge[project], Merge[ascii]; new possibility to remove first/last points after merging