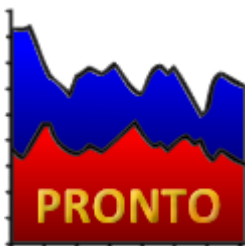


14 Great things you can do with Pronto for Windows

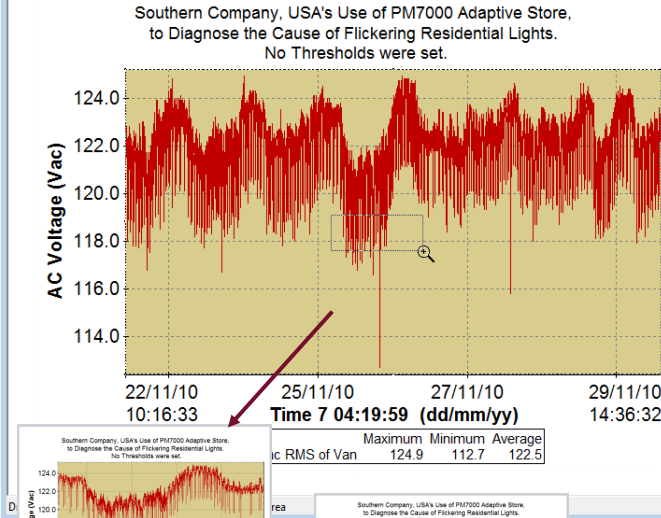
1. Zoom in and out of a graph down to single cycle and beyond.
2. Compare Voltage and Flicker, or any parameters, on the same graph.
3. Add and remove traces from a single graph, separate them out and move the axes around.
4. Exception Filters: Create an Exception list for values over and/or under any threshold(s).
5. Create a table with 95th (or other) percentile summary statistics and save it as a template.
6. View multiple sessions and projects together on the same graphs, even if from different PM Series models.
7. Default Graphing: Zoom into Waveforms from RMS data.
8. Create Harmonics graphs and tables for specific events.
9. Copy and Paste graphs into MS Word.
10. Create Graphs and Tables from your own Templates.
11. Create a G5/4 Harmonics Report (IEEE519 report coming soon).
12. Create new maths data streams using existing data.
13. Export data using PQDIF and Excel.
14. Fade Traces to easily compare many traces on the same graph.



1. Zoom in and out of a graph in Pronto.

1 Simply **click and drag** on a graph to automatically zoom in on the time zone selected (X axis).

2 The Y axis will auto-scale with your selection but it is also possible to fix it in place. Right click on the axis and select 'Format Axis Scale' and then 'Fixed' for the relevant choice.



GRAPH ARRANGEMENT
Duplicate Graph(s)

TRACES & AXES

Add / Remove Trace(s)...
Fade Trace(s)...
Move Traces and Axes...

EVENTS

New Exception List...

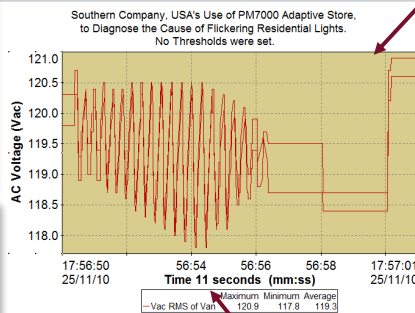
Graph Navigation

Zoom by: <none>
Show/Navigate by Events...

Off-line None

3 Remember: the **Adaptive Store** recording process records down to a single cycle automatically when anything interesting happens during the recording.

4 Once the graph is selected, you can zoom in and out with the scroll wheel on your mouse while hovering over the point of interest.



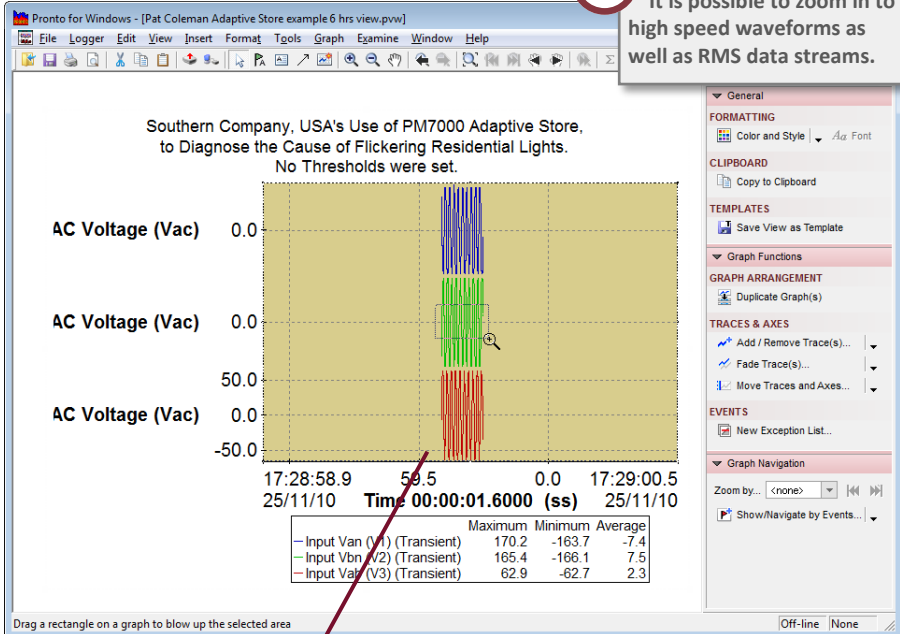
5 By selecting the icon in the tool bar you can zoom back out again in the same way.

6 Use the right mouse button or select the icon to hold and drag the graph to pan along it, either left or right.

The time given on the X axis is the duration of the data that can be seen across the graph.

7

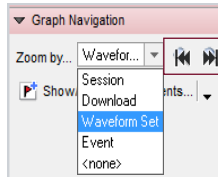
It is possible to zoom in to high speed waveforms as well as RMS data streams.





8

Zooming by 'Waveform Set' in the Functions Panel allows you to skip from one waveform to another through the recording.

Also zoom by 'Session', 'Download', or 'Event' recorded.



9

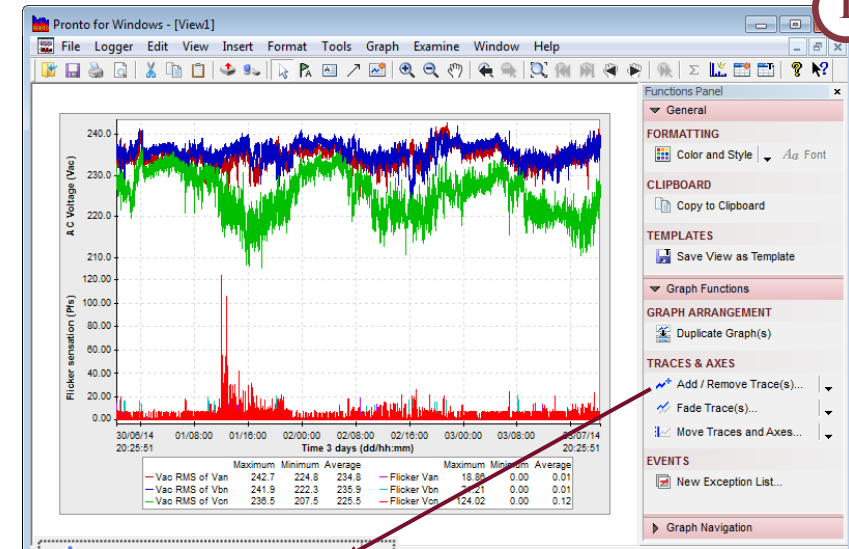
Click on the  icon in the tool bar to undo or  to redo the last 'zoom in' or 'zoom out' that was carried out.

2. Compare voltage and flicker, or any parameters, on the same graph.

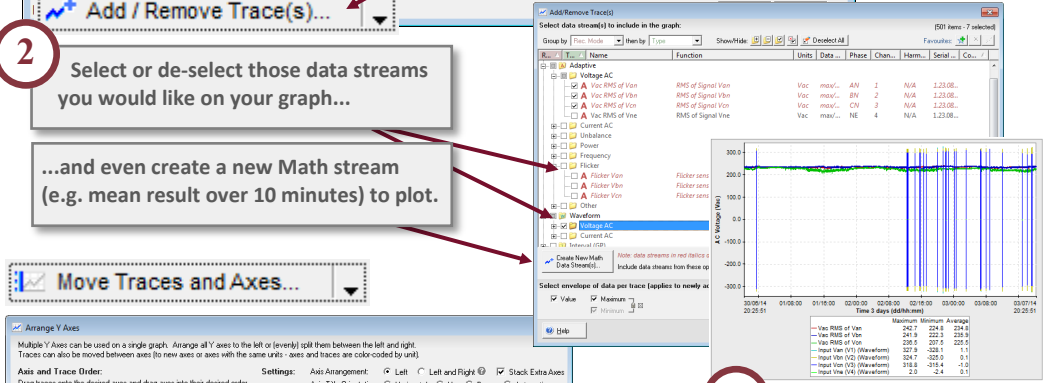



3. Add and remove traces from a single graph, separate them out and move the axes

1 The simplest way to remove a trace from a graph is to select and delete it. You can even select multiple traces at once. Otherwise choose the '**Add/Remove Trace(s)**' option in the function panel.



2 Select or de-select those data streams you would like on your graph...
...and even create a new Math stream (e.g. mean result over 10 minutes) to plot.





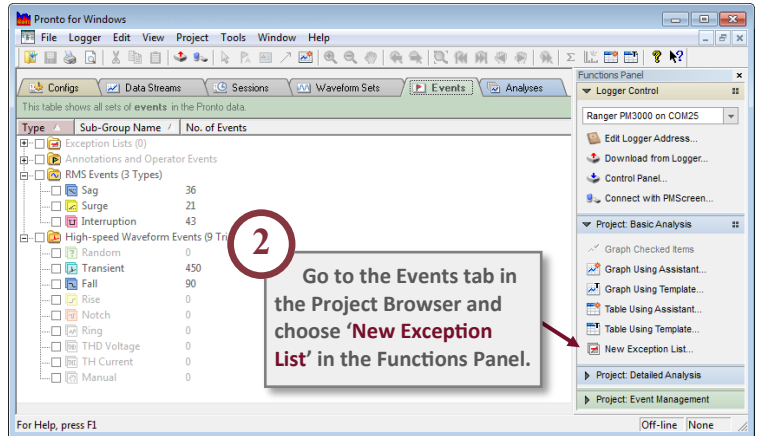
3 Move traces to different axes, separate by phase or unit, change their order on the graph, change the axis to left and/or right.

4. Exception Filters: Create an Exception list for values over and/or under a threshold(s).

1

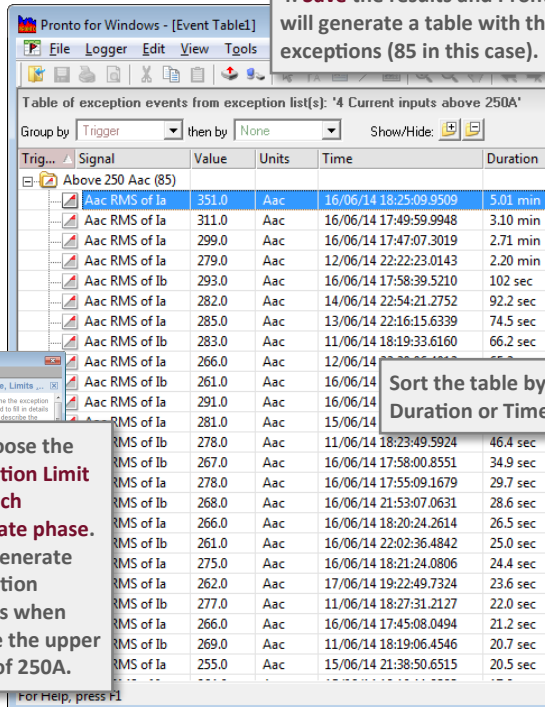
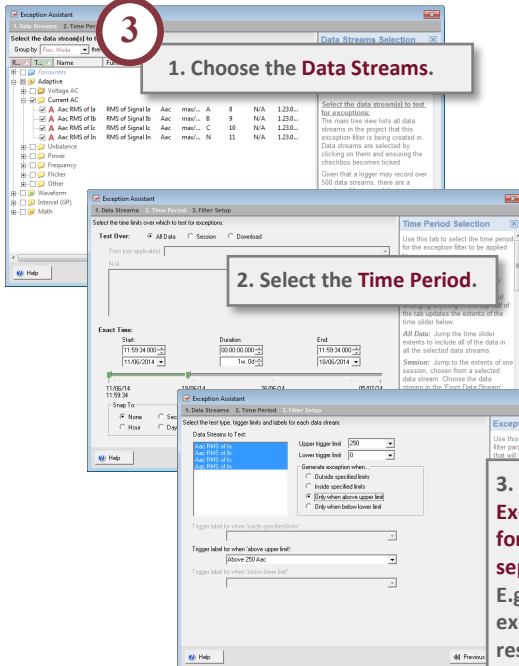
How often did the RMS current exceed 250A, on what phase and for how long for?

No need to set thresholds for the recording. Simply create **Exception lists** in Pronto.



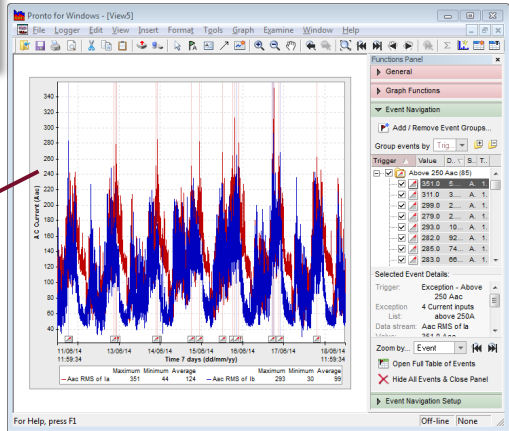
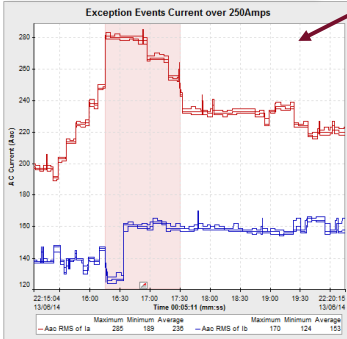
3

1. Choose the Data Streams.



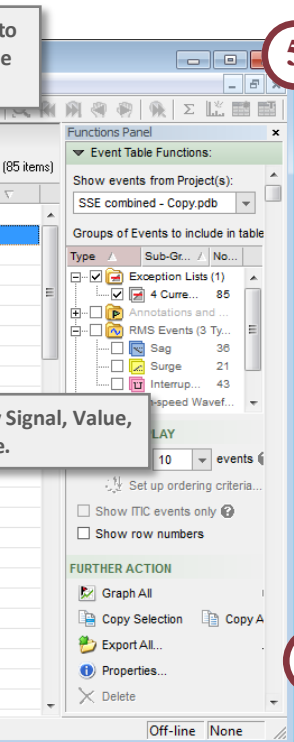
4 Generate a graph of the data. Either double click on a result (row) on the table or select 'Graph All' on the Functions Panel.

Zoom into individual events to analyse them more closely.

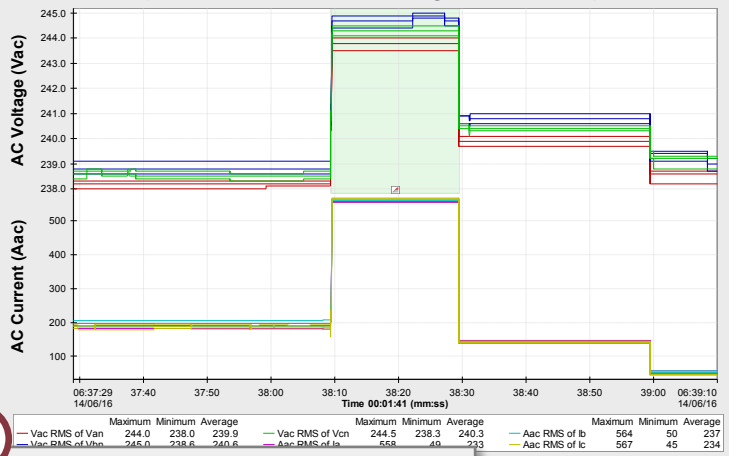


These graphs contain the max, min and average trace used during the exception filtering process.

5 Remember: You can add new traces to the graph e.g. to see the relationship between volts and current when the event occurred.



Exception List: Simultaneous Voltage and Current Spike



6 Export data to Excel or CSV. Right click on the Exception list or table and choose 'Export data...'.

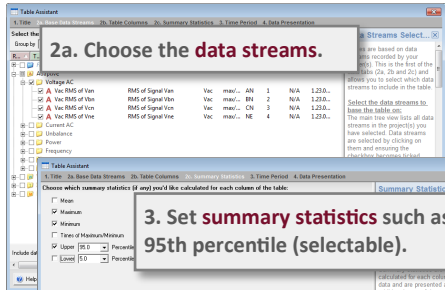
5. Create a Table with 95th (or other) percentile summary statistics and save it as a template.

1

Select **Table Using Assistant...** in the Project Browser Functions Panel.

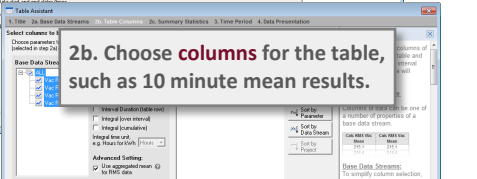
2

1. Input the **Title** information.

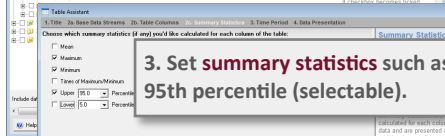


2a. Choose the **data streams**.

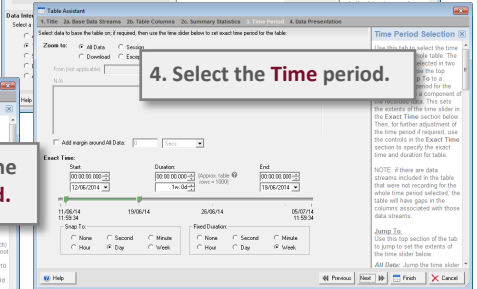
2b. Choose **columns** for the table, such as 10 minute mean results.



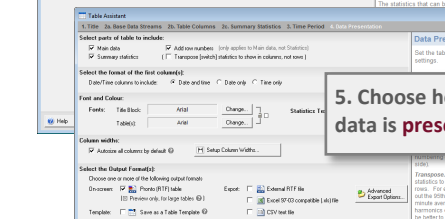
3. Set **summary statistics** such as 95th percentile (selectable).



4. Select the **Time period**.



5. Choose how the data is **presented**.



6. Click '**Finish**' to generate the table.

Pronto for Windows - [Table1]

File Logger Edit View Tools Window Help

Title: Table of 10 min mean Voltages to include 95th percentile
 Date: 25/07/14
 Company: Outram Research Ltd
 Data Start: 12/06/14 00:00:00
 Data End: 19/06/14 00:00:00
 Serial No.: 1.23.0846.230307

Date	Time	Vac RMS of Van Mean Aggr. RMS	Vac RMS of Vbn Mean Aggr. RMS	Vac RMS of Vcn Mean Aggr. RMS	Vac RMS of Vne Mean Aggr. RMS
1	12/06/14 00:00:00.0000	236.7	240.4	240.5	0.6
2	12/06/14 00:10:00.0000	239.0	240.7	240.7	0.6
3	12/06/14 00:20:00.0000	238.5	240.3	240.3	0.6
4	12/06/14 00:30:00.0000	237.7	239.6	239.6	0.6
5	12/06/14 00:40:00.0000	237.8	239.8	239.6	0.6
6	12/06/14 00:50:00.0000	237.5	239.3	239.1	0.6
7	12/06/14 01:00:00.0000	237.5	239.5	239.1	0.6
8	12/06/14 01:10:00.0000	237.6	239.5	239.4	0.6
9	12/06/14 01:20:00.0000	238.0	239.8	239.8	0.6
10	12/06/14 01:30:00.0000	238.3	240.1	240.0	0.6
11	12/06/14 01:40:00.0000	237.9	239.8	239.7	0.6
12	12/06/14 01:50:00.0000	237.5	239.6	239.4	0.6
13	12/06/14 02:00:00.0000	238.0	239.9	240.0	0.6
14	12/06/14 02:10:00.0000	238.0	239.8	239.8	0.6
15	12/06/14 02:20:00.0000	238.1	239.9	240.0	0.6
16	12/06/14 02:30:00.0000	238.7	240.4	240.4	0.6
17	12/06/14 02:40:00.0000	239.1	240.9	240.9	0.6
18	12/06/14 02:50:00.0000	238.9	240.7	240.7	0.6
19	12/06/14 03:00:00.0000	239.3	241.0	241.0	0.6
20	12/06/14 03:10:00.0000	239.2	240.9	241.0	0.6
21	12/06/14 03:20:00.0000	239.2	241.0	241.0	0.6
22	12/06/14 03:30:00.0000	239.1	240.8	240.8	0.6
23	12/06/14 03:40:00.0000	237.9	239.6	239.6	0.6

For Help, press F1

Functions Panel

Table Functions

SELECTION

Copy to Clipboard

TABLE EDITING

Open Table Assistant

Set Column Widths

TABLE TEMPLATES

Save Table as Template

TABLE EXPORT

Export to Excel

Export to CSV

Export to RTF

Export Options

PRINTING

Print Table

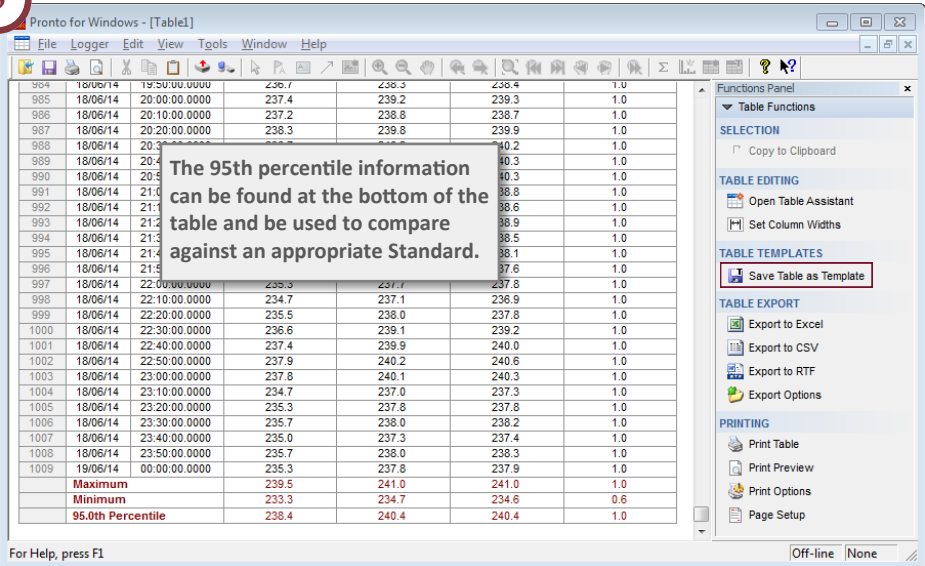
Print Preview

Print Options

Page Setup

Off-line None

3



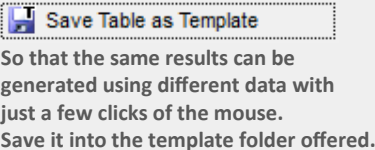
The 95th percentile information can be found at the bottom of the table and be used to compare against an appropriate Standard.

Time	19:50:00.0000	20:00:00.0000	20:10:00.0000	20:20:00.0000	20:30:00.0000	20:40:00.0000	20:50:00.0000	21:00:00.0000	21:10:00.0000	21:20:00.0000	21:30:00.0000	21:40:00.0000	21:50:00.0000	22:00:00.0000	22:10:00.0000	22:20:00.0000	22:30:00.0000	22:40:00.0000	22:50:00.0000	23:00:00.0000	23:10:00.0000	23:20:00.0000	23:30:00.0000	23:40:00.0000	23:50:00.0000	00:00:00.0000	Maximum	Minimum	95.0th Percentile
984	18/06/14	19:50:00.0000	236.7	236.3	236.4	1.0																							
985	18/06/14	20:00:00.0000	237.4	239.2	239.3	1.0																							
986	18/06/14	20:10:00.0000	237.2	238.8	238.7	1.0																							
987	18/06/14	20:20:00.0000	238.3	239.8	239.9	1.0																							
988	18/06/14	20:30:00.0000	238.3	239.8	239.9	1.0																							
989	18/06/14	20:40:00.0000	238.3	239.8	239.9	1.0																							
990	18/06/14	20:50:00.0000	238.3	239.8	239.9	1.0																							
991	18/06/14	21:00:00.0000	238.3	239.8	239.9	1.0																							
992	18/06/14	21:10:00.0000	238.3	239.8	239.9	1.0																							
993	18/06/14	21:20:00.0000	238.3	239.8	239.9	1.0																							
994	18/06/14	21:30:00.0000	238.3	239.8	239.9	1.0																							
995	18/06/14	21:40:00.0000	238.3	239.8	239.9	1.0																							
996	18/06/14	21:50:00.0000	238.3	239.8	239.9	1.0																							
997	18/06/14	22:00:00.0000	235.3	237.1	237.8	1.0																							
998	18/06/14	22:10:00.0000	234.7	237.1	236.9	1.0																							
999	18/06/14	22:20:00.0000	235.5	238.0	237.8	1.0																							
1000	18/06/14	22:30:00.0000	236.6	239.1	239.2	1.0																							
1001	18/06/14	22:40:00.0000	237.4	239.9	240.0	1.0																							
1002	18/06/14	22:50:00.0000	237.9	240.2	240.6	1.0																							
1003	18/06/14	23:00:00.0000	237.8	240.1	240.3	1.0																							
1004	18/06/14	23:10:00.0000	234.7	237.0	237.3	1.0																							
1005	18/06/14	23:20:00.0000	235.3	237.8	237.8	1.0																							
1006	18/06/14	23:30:00.0000	235.7	238.0	238.2	1.0																							
1007	18/06/14	23:40:00.0000	235.0	237.3	237.4	1.0																							
1008	18/06/14	23:50:00.0000	235.7	238.0	238.3	1.0																							
1009	19/06/14	00:00:00.0000	235.3	237.8	237.9	1.0																							
		Maximum	239.5	241.0	241.0	1.0																							
		Minimum	233.3	234.7	234.6	0.6																							
		95.0th Percentile	238.4	240.4	240.4	1.0																							

For Help, press F1

Off-line None

4



Save Table as Template

So that the same results can be generated using different data with just a few clicks of the mouse. Save it into the template folder offered.

6

Export data to Excel, CSV or RTF or print the table.

5

To create the same table with different data open a new project and choose **Table Using Template...** in the Project Browser Functions Panel to bring up a saved template. A traffic light system indicates which templates can be filled using the data selected.

Select the relevant template and click on **'Create the Table'**.

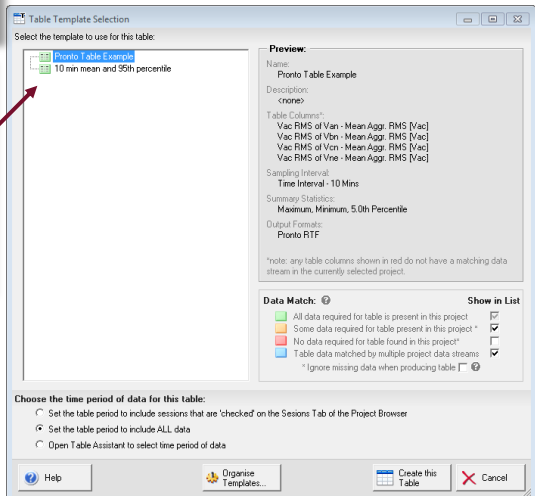


Table Template Selection

Select the template to use for this table:

- Pronto Table Example
- 10 min mean and 95th percentile

Preview:

Name: Pronto Table Example

Description: <none>

Table Columns:

- Vac RMS of Vbn - Mean Aggr. RMS [Vac]
- Vac RMS of Vbn - Mean Aggr. RMS [Vac]
- Vac RMS of Vbn - Mean Aggr. RMS [Vac]
- Vac RMS of Vbn - Mean Aggr. RMS [Vac]
- Vac RMS of Vbn - Mean Aggr. RMS [Vac]

Sampling Interval:

Time Interval - 10 Mins

Summary Statistics:

Maximum, Minimum, 5.0th Percentile

Output Formats:

Pronto RTF

*note: any table columns shown in red do not have a matching data stream in the currently selected project.

Data Match:

- All data required for table is present in this project
- Some data required for table present in this project *
- No data required for table found in this project *
- Data matched by multiple project data streams

Show in List

*Ignore missing data when producing table

Choose the time period of data for this table:

- Set the table period to include sessions that are 'checked' on the Sessions Tab of the Project Browser
- Set the table period to include ALL data
- Open Table Assistant to select time period of data

Help Organise Templates... Create this Table Cancel

6. View multiple sessions and projects together on the same graphs, even if from different PM Series models.

1

To save a recording session into the same project as a previous recording, select that project during the import process.

Here is the Hint given on this subject during the import process.

Hint - Browse to Existing or New

You can use the 'Browse...' button to either find an existing project (to over-write or append data to), or create a new project by browsing to a folder and typing in a new project name.

2

Browse your projects and select the project you would like to add this session to, then click **Import**.

3

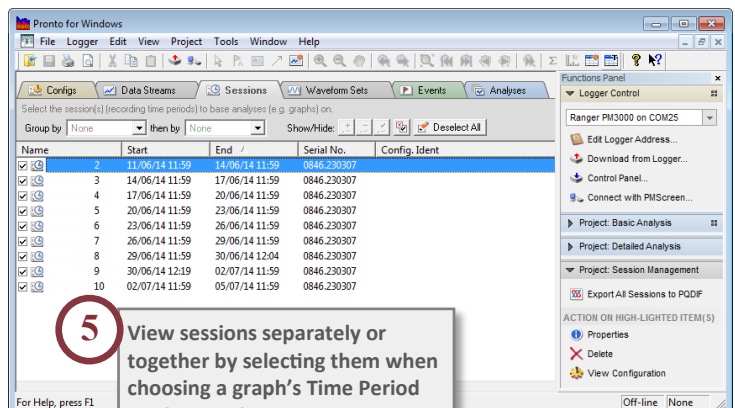
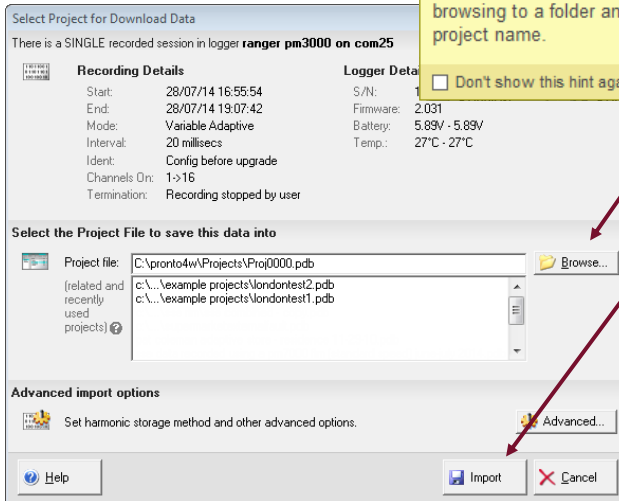
Make a recording available for viewing along with the rest of the sessions in a project by choosing to a project by choosing to **append** the session to that existing project.

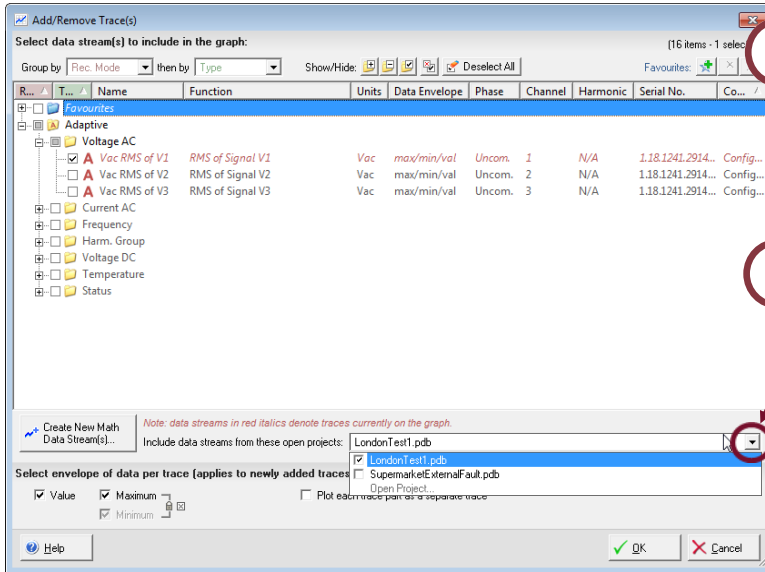
4

Remember: You can append (join) recording sessions from **different models of analyser** together. E.g. you can view data from a PM1000 on the same graph as a PM7000.

5

View sessions separately or together by selecting them when choosing a graph's Time Period on the Graph Assistant.





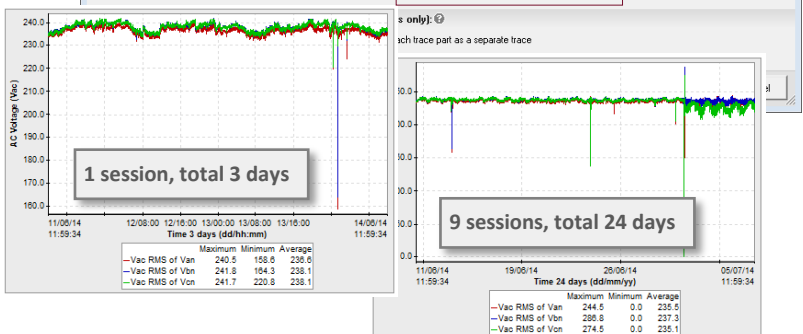
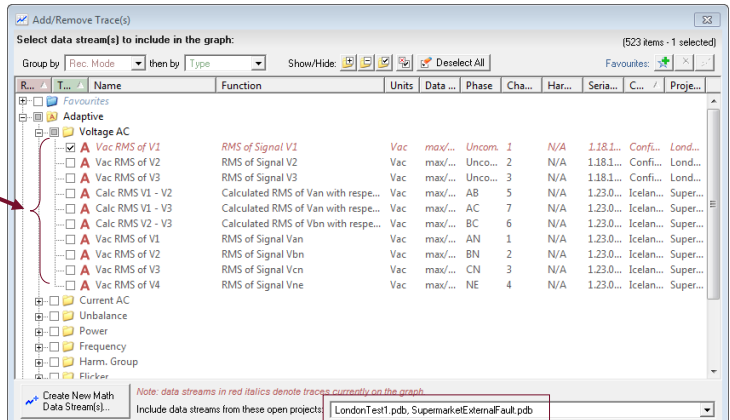
6 To view two or more different projects together, create a graph from the first project then select **'Add/Remove Traces...'** from the Functions Panel.

7 Click on the down arrow next to **'Include data streams from these open projects'** and either **'Open [another] Project'** or check the box next to another already opened project.

8 All the data streams from both projects are now available for viewing on the graph.

9 Select the ones you want by checking the relevant boxes and click

10 Don't forget that if there is a big time difference between the two projects the graph will be very zoomed out with each project at either side of the graph.

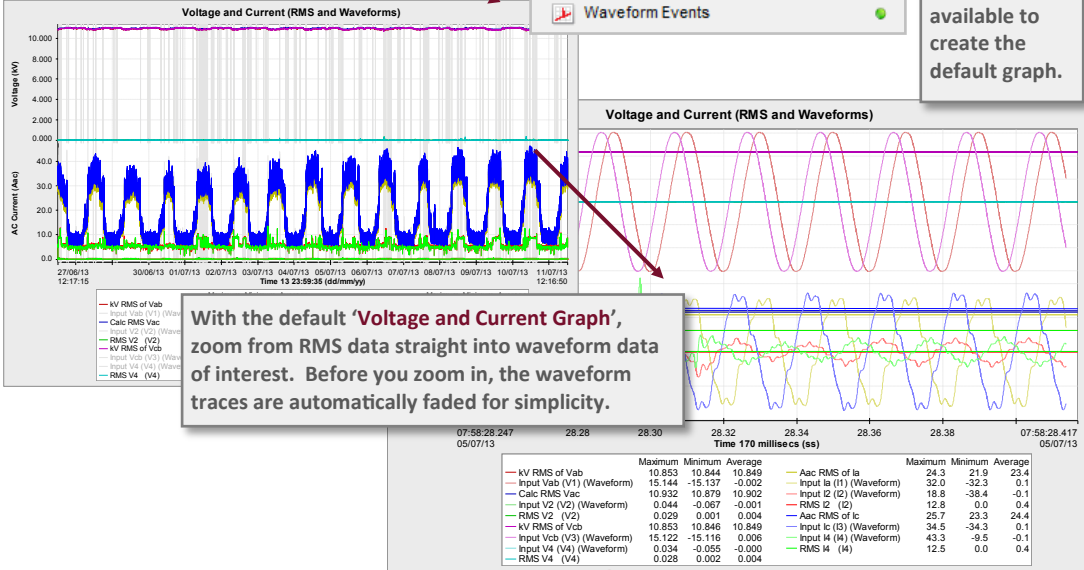


7. Default Graphing: Zoom into Waveforms from RMS data

1

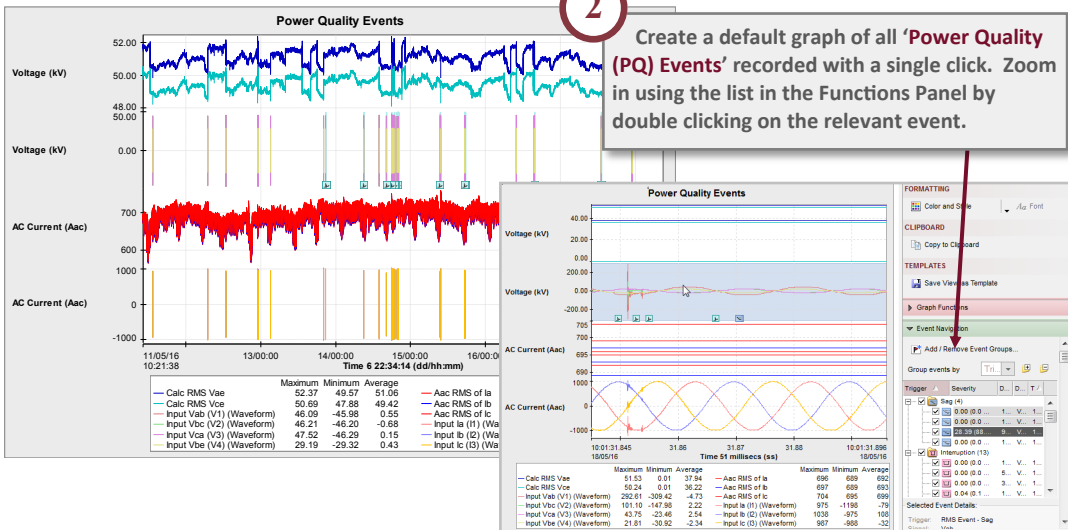
Click on any of these options in the Functions Panel to **create default graphs with a single click**.

Traffic light system indicates if relevant data streams are available to create the default graph.



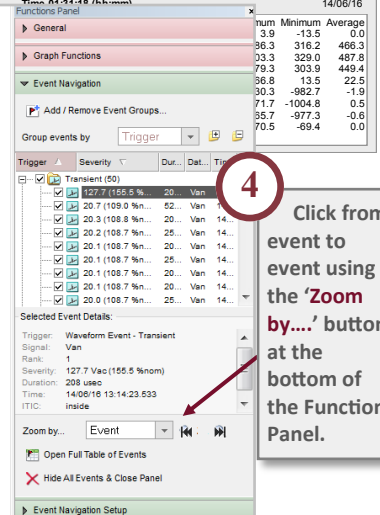
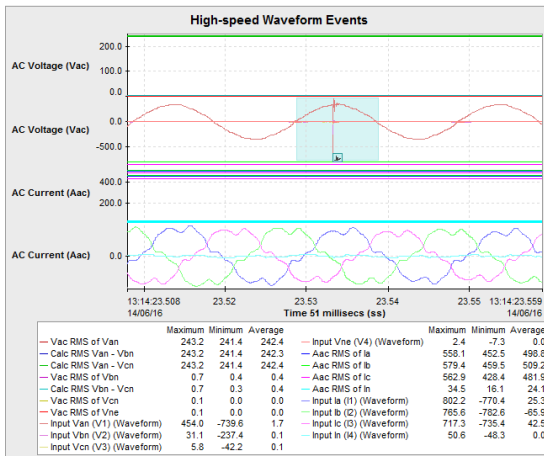
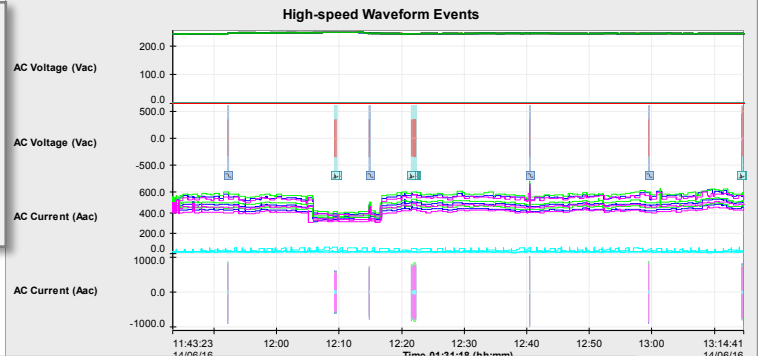
2

Create a default graph of all **'Power Quality (PQ) Events'** recorded with a single click. Zoom in using the list in the Functions Panel by double clicking on the relevant event.



3

Create a graph of all 'Waveform Events' recorded with a single click. Zoom in using the list in the Functions Panel by double clicking on the relevant event.

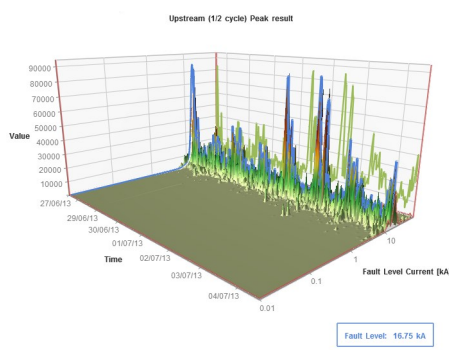
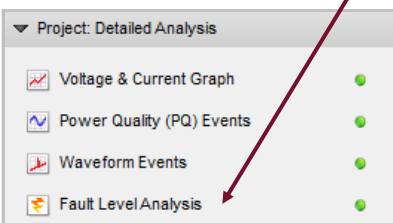


4

Click from event to event using the 'Zoom by...' button at the bottom of the Functions Panel.

5

If you have a Fault Level Monitor, it is also possible to generate 'Fault Level Analysis' graphs in the same way, following a couple of Fault Level Assistants to produce the graphs.



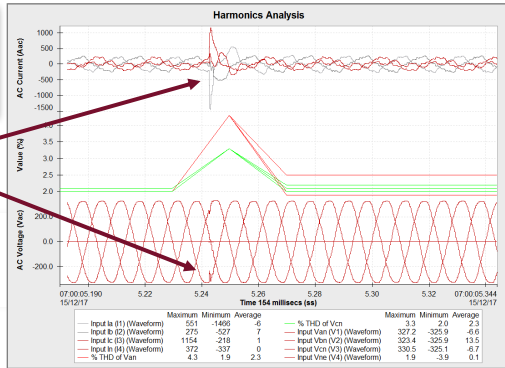
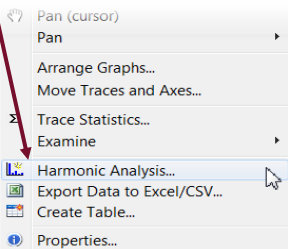
8. Create Harmonics graphs and tables for specific events.

1

Create a graph of the data you wish to analyse for Harmonics, including the waveforms.

2

Right click on the relevant waveform and choose 'Harmonic Analysis...' towards the bottom of the offered list.

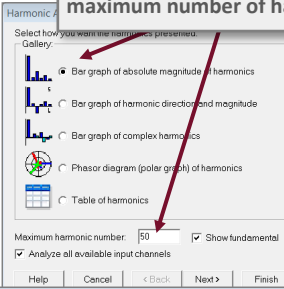


3

Select the samples to be analysed by clicking on the left or right arrows in the Harmonics Analysis dialogue box or move the selection window more quickly by dragging the slide bar. Click 'OK'.

4

Then choose how you would like the harmonics presented and the maximum number of harmonics.

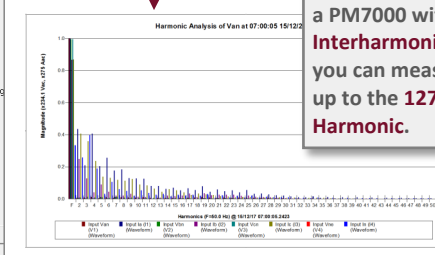
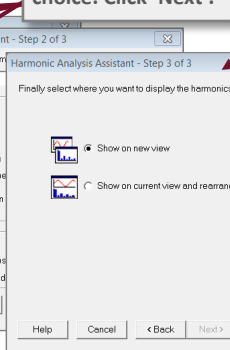
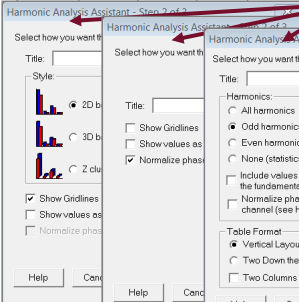
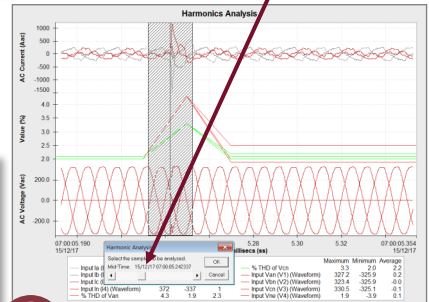


5

Follow step 2 of the Harmonics Analysis Assistant adding a title. This step will differ depending on the presentation choice. Click 'Next'.

6

Choose where to view your graph, in a new view or in the current one. Click 'Finish' to produce the harmonics graph or table.



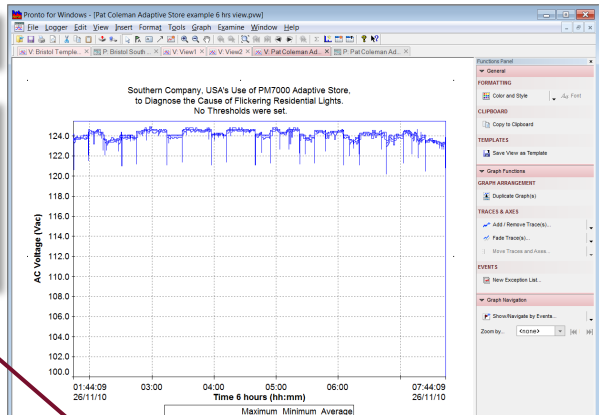
Remember: With a PM7000 with Interharmonics you can measure up to the 127th Harmonic.

9. Copy and Paste graphs into MS Word.

1 Create a graph in Pronto.

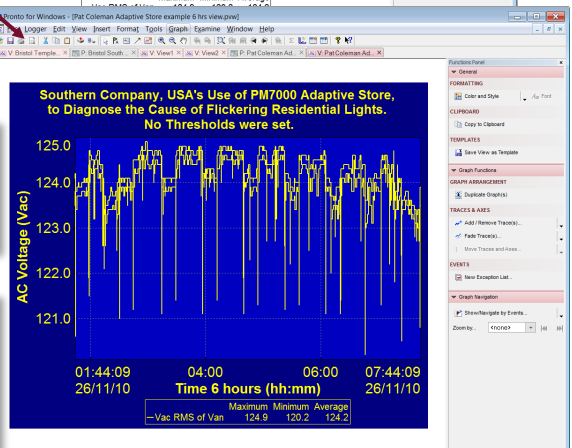
2 Format it as you would like it to appear in your document by right clicking on whichever aspect you would like to change and choosing from the menu.

Format Trace...
Format Graph...
Color and Style...
Set all trace colours...
Fade Traces...
Fade Selected Traces

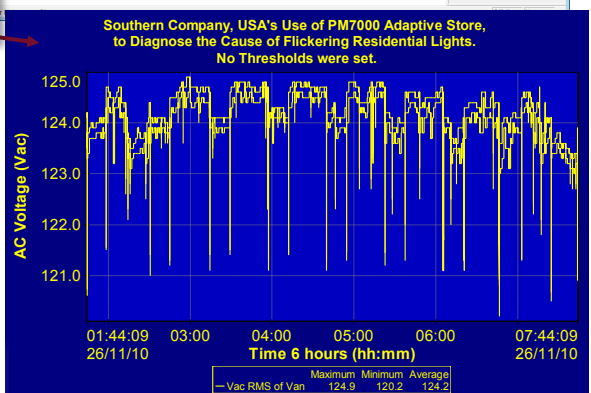


3 Amend the size and orientation of the graph if required. For more options go to 'View' in the Main Menu and choose 'Page Layout View'.

4 Then simply highlight (click on) the outer border section of the graph and copy (Ctrl C or 'Copy' from the right click menu), then paste (Ctrl V or 'Paste' from the right click menu) into your document.



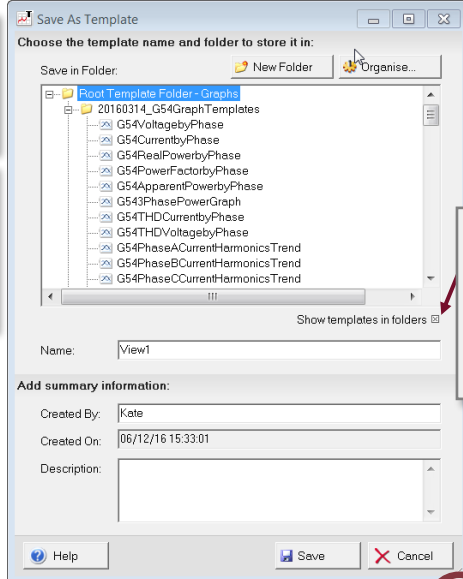
Format Graph...
Color and Style...
Set all trace colours...
☒ Normal View
Page Layout View
Page Layout Scaling
Cut
Copy
Paste
Delete



10. Create Graphs and Tables from your own Templates.

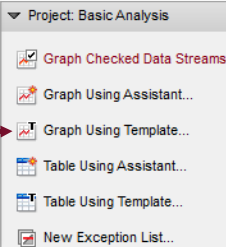
1

To create the same graph or table from different data, creating a graph or table template makes the process simple, quick and easy.

Create the graph you wish to duplicate, including title, data streams and formatting. Then, under the File menu, click on 'Save as Template...'.


2

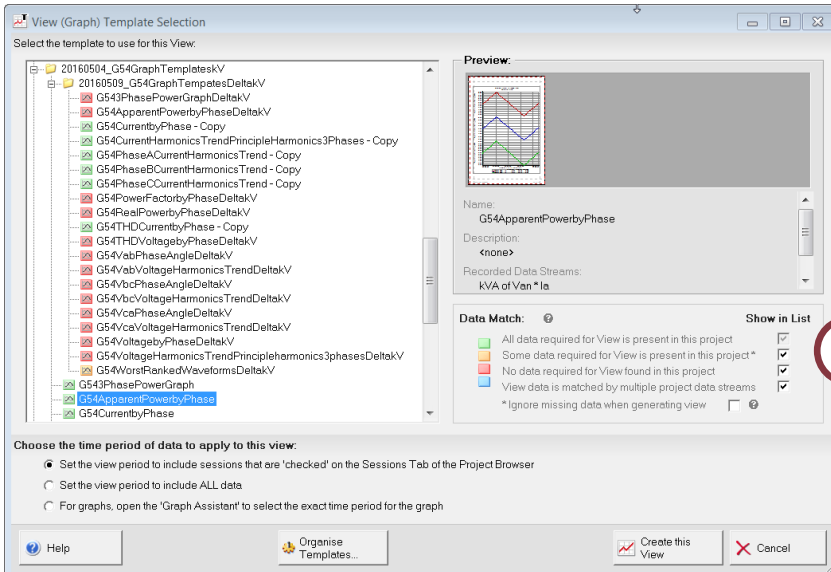
Then load a new set of data, and click on 'Graph Using Template' in the Functions Panel.



Check this box if you would like to see the templates already present in each folder.

3

Choose a suitable template for a new graph. A traffic light system indicates if the data required to create the graph (called a 'View' in Pronto) is present.



4

Once you have a template selected, click on 'Create this View' to create the same graph as previously saved but with the new data.

5

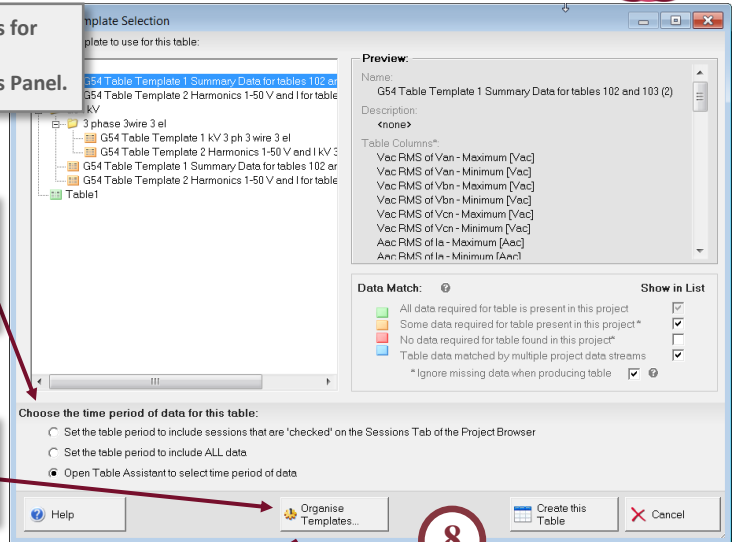
The same principle applies for Tables. Select **'Table Using Template...'** on the Functions Panel.

6

Choose a time period of data for the table or choose to open the Table Assistant.

7

To organise the filing of your templates click on **'Organise Templates...'**



8

Choose a template and click on **'Create this Table'**. Depending on whether you have chosen to open the table assistant, either choose your time period and click **'Finish'** or begin to analyse your table.



Pronto for Windows - [G5/4 Table Template 1 Summary Data for tables 102 and 103 (2)]

File Logger Edit View Tools Window Help

P: V: View1 ET: Event Table1 V: View2 T: G5/4 Table Temp...

Title: G5/4 Data Acquisition
 Date: 12/01/16
 Created by: Kate
 Company: Outram Research Ltd
 Project Name:
 Project Dir.: C:\Pronto4w\Projects
 Data Start: 09/06/16 09:43:23
 Data End: 10/06/16 09:43:23
 Serial No.: 1.23.1323.110702
 Notes: Template for G5/4 report to generate data needed for Table 1

Date	Time	Vac RMS of Van Maximum [Vac]	Vac RMS of Van Minimum [Vac]	Vac RMS of Vbn Maximum [Vac]	Vac RM Mini [V]
09/06/16	09:50:00.0000	235.3	233.8	236.1	23
09/06/16	10:00:00.0000	235.8	234.0	236.6	23
09/06/16	10:10:00.0000	236.3	235.2	237.1	23
09/06/16	10:20:00.0000	236.2	233.5	236.7	23
09/06/16	10:30:00.0000	234.9	233.3	235.6	23
09/06/16	10:40:00.0000	234.8	233.5	235.3	23
09/06/16	10:50:00.0000	235.0	233.6	235.7	23
09/06/16	11:00:00.0000	235.7	234.0	236.6	23
09/06/16	11:10:00.0000	235.8	233.8	236.7	23

For Help, press F1

Functions Panel

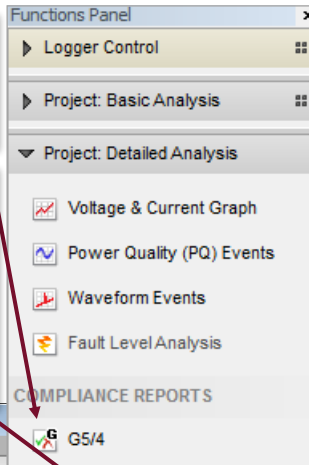
- Table Functions
- SELECTION
 - Copy to Clipboard
- TABLE EDITING
 - Open Table Assistant
 - Set Column Widths
- TABLE TEMPLATES
 - Save Table as Template
- TABLE EXPORT
 - Export to Excel
 - Export to CSV
 - Export to RTF
 - Export Options
- PRINTING
 - Print Table
 - Print Preview

Off-line None

11. Create a G5/4 Harmonics

1 Create a G5/4 Harmonics Report by clicking on the **Compliance Report 'G5/4'** in the Functions Panel.

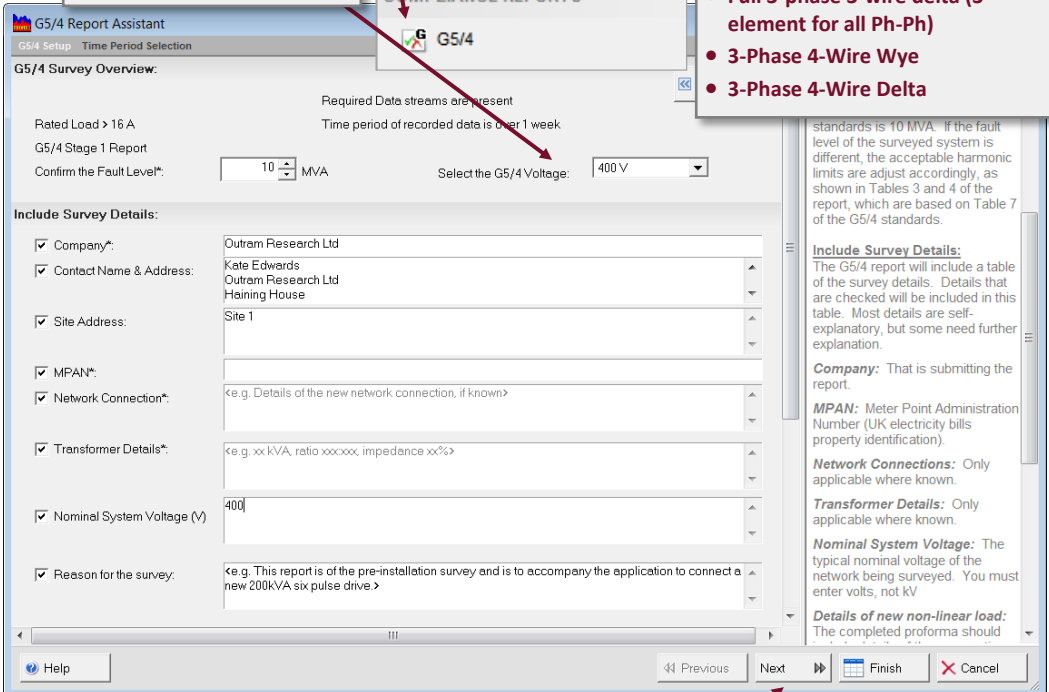
2 Fill in the 'Survey Details' including the G5/4 Voltage you wish to use to decide the limits for data comparison. This selects the relevant Tables referring to Stage 1, 2 or 3 of the ENA G5/4 Recommendation.



To record the correct data for the most comprehensive G5/4 report use the pre-loaded configurations in your PM7000 or PM7000FLM or for older units contact Outram Research at sales@outramresearch.co.uk for an easily uploadable set of configurations.

If using your own configuration, these are the **minimum data requirements** for G5/4 report generation. **General Parameters to record at 10 minute intervals** using one of the following hook-ups:

- Full 3-phase 3-wire delta (3 element for all Ph-Ph)
- 3-Phase 4-Wire Wye
- 3-Phase 4-Wire Delta



G5/4 Report Assistant
G5/4 Setup Time Period Selection

G5/4 Survey Overview:

Rated Load > 16 A
G5/4 Stage 1 Report
Confirm the Fault Level*: 10 MVA
Required Data streams are present
Time period of recorded data is over 1 week
Select the G5/4 Voltage: 400 V

Include Survey Details:

☒ Company*: Outram Research Ltd
☒ Contact Name & Address: Kate Edwards
 Outram Research Ltd
 Haining House
☒ Site Address: Site 1
☒ MPAN*:
☒ Network Connection*: <e.g. Details of the new network connection, if known>
☒ Transformer Details*: <e.g. xx kVA, ratio xxxxxx, impedance xx%>
☒ Nominal System Voltage (V): 400
☒ Reason for the survey: <e.g. This report is of the pre-installation survey and is to accompany the application to connect a new 200kVA six pulse drive.>

Standards is 10 MVA. If the fault level of the surveyed system is different, the acceptable harmonic limits are adjust accordingly, as shown in Tables 3 and 4 of the report, which are based on Table 7 of the G5/4 standards.

Include Survey Details:
The G5/4 report will include a table of the survey details. Details that are checked will be included in this table. Most details are self-explanatory, but some need further explanation.

Company: That is submitting the report.

MPAN: Meter Point Administration Number (UK electricity bills property identification).

Network Connections: Only applicable where known.

Transformer Details: Only applicable where known.

Nominal System Voltage: The typical nominal voltage of the network being surveyed. You must enter volts, not kV

Details of new non-linear load: The completed proforma should

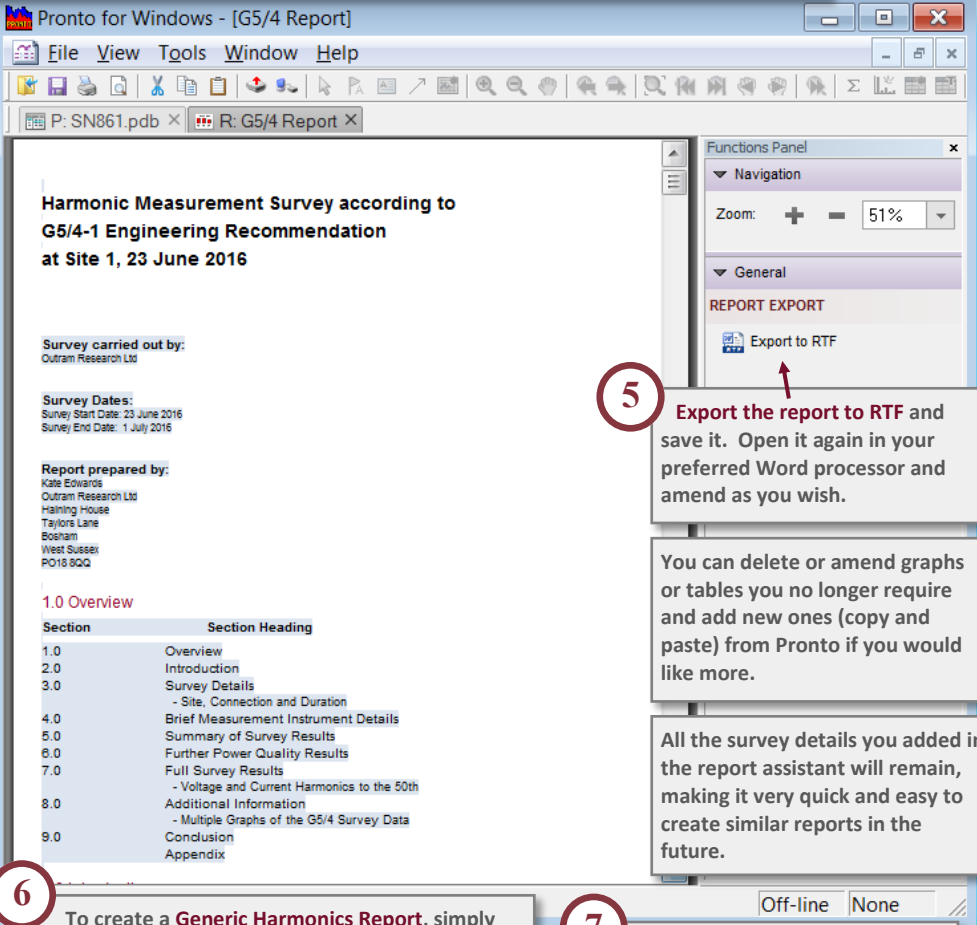
Help Previous Next Finish Cancel

This data is inserted into your finished report.

3 Click 'Next' to choose the time period of the report. Choose 'All Data' or select a specific session or 'Exact Time'. Then click 'Finish'.

IEEE519 Harmonics Survey Report coming soon.

4 Wait for the report to generate. Whilst still in Pronto, all highlighted sections can be amended. At this point it is sensible to browse and sense check the tables and graphs produced in the report. * Appendices at the end of the report show which ENA G5/4 Recommendation Tables have been used to generate the Report Tables.



Harmonic Measurement Survey according to G5/4-1 Engineering Recommendation at Site 1, 23 June 2016

Survey carried out by:
Outram Research Ltd

Survey Dates:
Survey Start Date: 23 June 2016
Survey End Date: 1 July 2016

Report prepared by:
Kate Edwards
Outram Research Ltd
Haining House
Taylors Lane
Bosham
West Sussex
PO18 8QQ

1.0 Overview

Section	Section Heading
1.0	Overview
2.0	Introduction
3.0	Survey Details
	- Site, Connection and Duration
4.0	Brief Measurement Instrument Details
5.0	Summary of Survey Results
6.0	Further Power Quality Results
7.0	Full Survey Results
	- Voltage and Current Harmonics to the 50th
8.0	Additional Information
	- Multiple Graphs of the G5/4 Survey Data
9.0	Conclusion
	Appendix

Functions Panel

Navigation

Zoom: + - 51%

General

REPORT EXPORT

Export to RTF

5 Export the report to RTF and save it. Open it again in your preferred Word processor and amend as you wish.

You can delete or amend graphs or tables you no longer require and add new ones (copy and paste) from Pronto if you would like more.

All the survey details you added in the report assistant will remain, making it very quick and easy to create similar reports in the future.

6 To create a **Generic Harmonics Report**, simply delete any reference to G5/4, delete the pass/fail columns from the tables in your word processor and any reference tables in the Appendix.

7 Contact Outram Research at sales@outramresearch.co.uk or your local distributor for a Full Example G5/4 report.

* If the results don't look quite right, do go back into the Pronto project browser and graph the voltage and current. Maybe the beginning or end of the recording are skewing the results. This may be something to do with hooking up or taking the unit off whilst still recording. If this is the case, amend the time period in the report assistant to miss off this section of data. Click 'Finish' and create the report again.

12. Create new maths data streams using existing data.

1

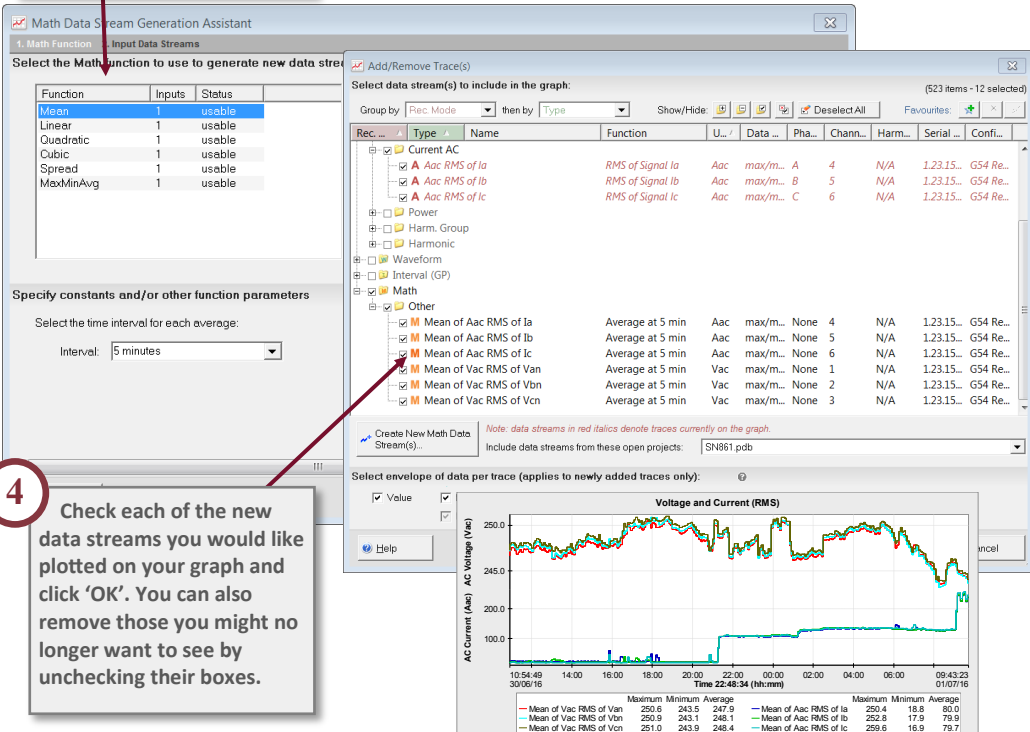
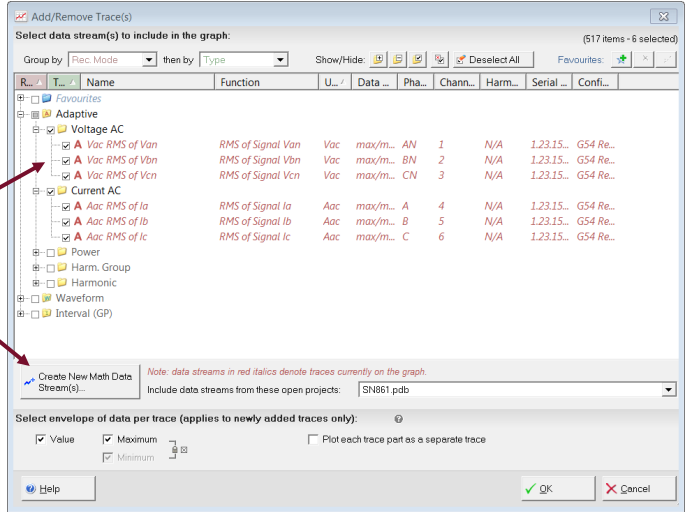
Having created a graph, select 'Add/Remove Trace(s)' in the Functions Panel.

2

Check the boxes of the data streams you would like as the basis of your new maths data streams. Click on the 'Create New Math Data Stream(s)...

3

Choose the 'Function' you would like to use to create your new data stream and then the time interval for each average e.g. 5 or 10 minutes. Click on 'Finish'.



4

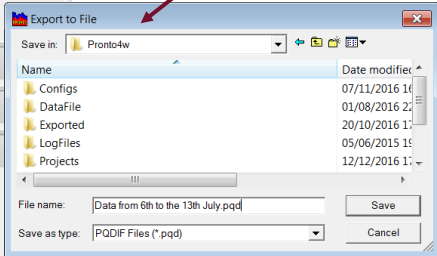
Check each of the new data streams you would like plotted on your graph and click 'OK'. You can also remove those you might no longer want to see by unchecking their boxes.

13. Export data using PQDIF and Excel

1 You can export your whole project to PQDIF. Open a project and look for **'Export to PQDIF...'** in the Functions Panel or on the File Menu.

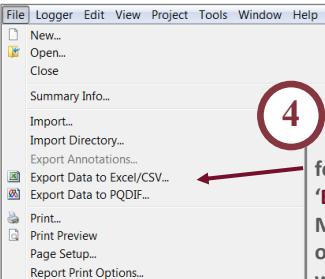
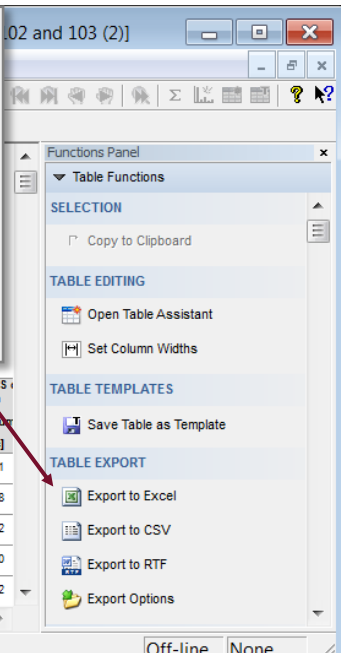
2 Choose 1. the data streams you want to export, 2. the Time Period and 3. the PQDIF Set up (Nominal values i.e. Frequency and Nominal voltage) using the PQDIF Export Assistant.

3 Choose an export destination. Once saved, select your file and open it up in PQVIEW.



4 Data is exported to Excel in tabular format so to export to Excel, choose **'Export to Excel/CSV...'** in the File Menu which opens the table assistant or create the table of the data you would like to export and choose **'Export to Excel...'** from the Functions Panel on the right. Once saved, Excel will open automatically with your table of choice. It is also possible to Export to CSV and RTF.

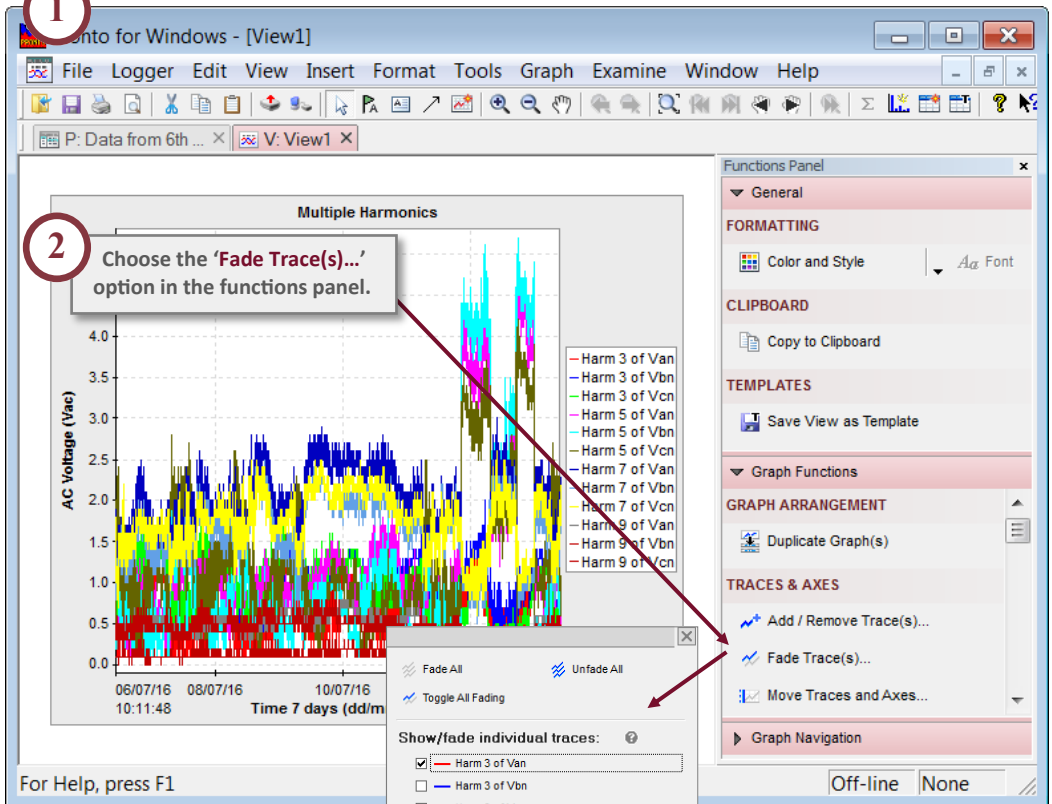
5 The table assistant shows the data you would like to export and choose **'Export to Excel...'** from the Functions Panel on the right. Once saved, Excel will open automatically with your table of choice. It is also possible to Export to CSV and RTF.

Date	Time	Vac RMS of Van Maximum [Vac]	Vac RMS of Van Minimum [Vac]	Vac RMS of Vbn Maximum [Vac]	Vac RMS of Vbn Minimum [Vac]	Vac RMS of Vcn Maximum [Vac]	Vac RMS of Vcn Minimum [Vac]
06/07/16	10:20:00.00	248.1	245.4	248.8	245.7	249.3	248.1
06/07/16	10:30:00.00	248.1	228.2	248.7	228.2	249.5	228.8
06/07/16	10:40:00.00	247.3	243.4	247.8	242.8	248.4	244.2
06/07/16	10:50:00.00	247.6	227.5	247.9	227.5	248.3	228.0
06/07/16	11:00:00.00	246.6	243.6	246.9	243.2	247.7	244.2

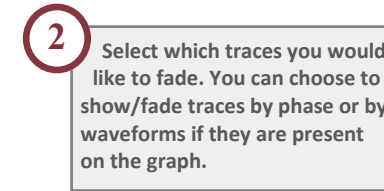
14. Fade Traces.

1



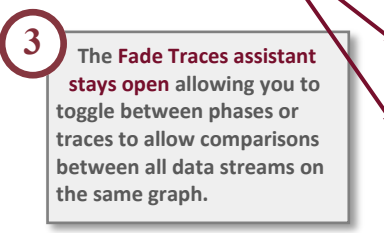
Choose the 'Fade Trace(s)...' option in the functions panel.

2



Select which traces you would like to fade. You can choose to show/fade traces by phase or by waveforms if they are present on the graph.

3



The **Fade Traces** assistant stays open allowing you to toggle between phases or traces to allow comparisons between all data streams on the same graph.

For Help, press F1

Functions Panel

General

FORMATTING

Color and Style | Aa Font

CLIPBOARD

Copy to Clipboard

TEMPLATES

Save View as Template

Graph Functions

GRAPH ARRANGEMENT

Duplicate Graph(s)

TRACES & AXES

Add / Remove Trace(s)...

Fade Trace(s)...

Move Traces and Axes...

Graph Navigation

Off-line None

Multiple Harmonics

AC Voltage (Vac)

Time 7 days (dd/m)

Legend:

- Harm 3 of Van
- Harm 3 of Vbn
- Harm 3 of Vcn
- Harm 5 of Van
- Harm 5 of Vbn
- Harm 5 of Vcn
- Harm 7 of Van
- Harm 7 of Vbn
- Harm 7 of Vcn
- Harm 9 of Van
- Harm 9 of Vbn
- Harm 9 of Vcn

Show/fade individual traces:

- ☒ Harm 3 of Van
- ☐ Harm 3 of Vbn
- ☐ Harm 3 of Vcn
- ☒ Harm 5 of Van
- ☐ Harm 5 of Vbn
- ☐ Harm 5 of Vcn
- ☒ Harm 7 of Van
- ☐ Harm 7 of Vbn
- ☐ Harm 7 of Vcn
- ☒ Harm 9 of Van
- ☐ Harm 9 of Vbn
- ☐ Harm 9 of Vcn

Show/fade traces by phase:

- ☒ AN ☐ BN ☐ CN

Waveform Sets (high-speed data):

All waveforms: ☐ Fade ☐ Unfade

☐ Automatically fade waveform traces when zoomed out

☐ Ignore faded waveform traces for Y-axis auto-zoom

Multiple Harmonics

AC Voltage (Vac)

Time 7 days (ddmmiyy)

Legend:

- Harm 3 of Van
- Harm 3 of Vbn
- Harm 3 of Vcn
- Harm 5 of Van
- Harm 5 of Vbn
- Harm 5 of Vcn
- Harm 7 of Van
- Harm 7 of Vbn
- Harm 7 of Vcn
- Harm 9 of Van
- Harm 9 of Vbn
- Harm 9 of Vcn

Any other questions?

28/03/2018

These are just a few of the great things you can do with the Outram Software, Pronto for Windows.

If you have any questions about any of these functions or are wondering if there is anything specific you can do in Pronto (you probably can!) then please do not hesitate to call us on +44 (0)1243 573050 or email us at support@outramresearch.co.uk.

If you would prefer to call your local distributor the telephone numbers are on our website here: www.outramresearch.co.uk/company/outram-research-partners/

Please do offer us feedback, we are always open to new ideas.

New items in development include:

ITIC Curve presentation.

IEEE519 Harmonics Report Generation.

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14 things to do with Pronto for Windows 6.0