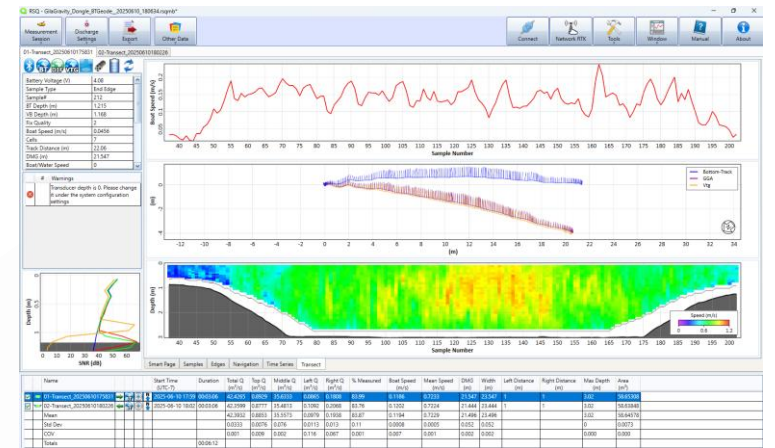




Unlocking the Power of RSQ:

Feature-Rich Performance with the SonTek-RS5

Xue Fan, Xylem Analytics Dealers' Meeting 2025



RSQ 3.2

New Features and Added Benefits

RSQ: New Features and Existing Benefits

1

Features in newly-released RSQ 3.2

- use PC bluetooth (no dongle)
- Other software improvements/bug fixes

2

Benefits Setting RSQ Apart

- Beam switching
- KML Exports
- Sub-section measurements

3

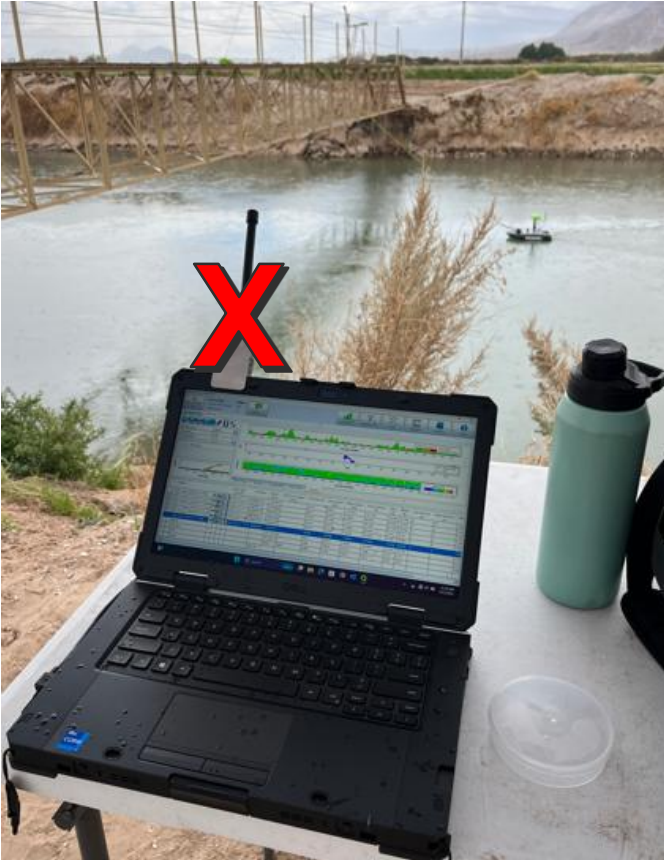
Using RSQ on Existing M9 files

4

Coming Soon: Bluetooth to GNSS and Stationary Improvements



RSQ 3.2 – New Features and Added Benefits



- 1 **PC Bluetooth (no dongle required)**
- 2 Compass Calibration start delay
- 3 USGS Extrap automatically applied to Moving Boat and Stationary measurements
- 4 Made GNSS/BT loss more obvious
- 5 Stationary: include magnitude method
- 6 Fixed some critical crashes (during compass calibration and Stationary measurements)

RSQ 3.2 – New Features and Added Benefits



1

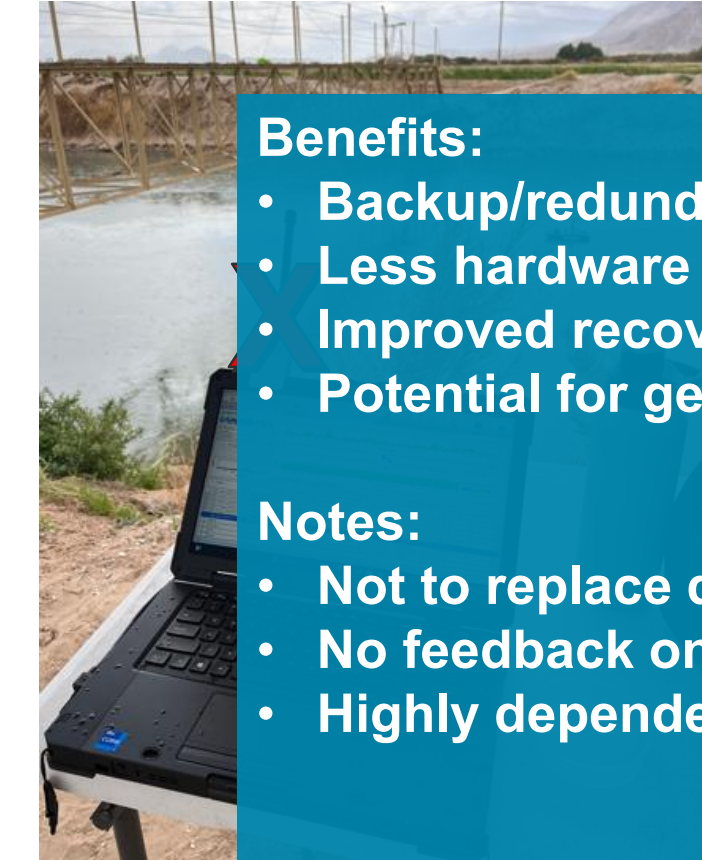
PC Bluetooth (no dongle required)

Benefits:

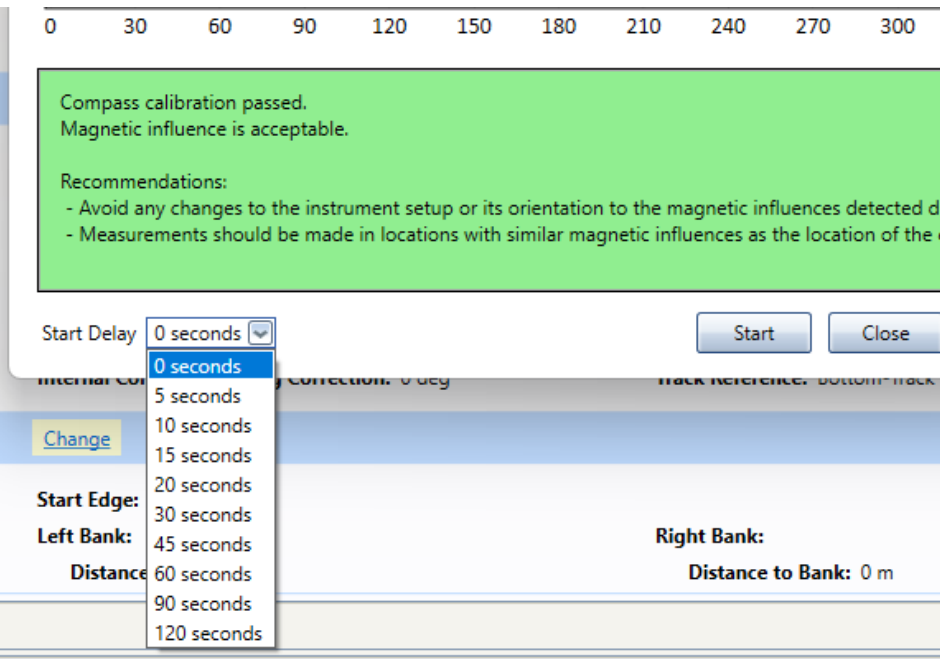
- Backup/redundant communication mode (if dongle is lost/damaged)
- Less hardware to attach/damage/lose
- Improved recovery of connection if lost
- Potential for getting maximum range (highly dependent on laptop used)

Notes:

- Not to replace dongle – dongle range will always meet the specification
- No feedback on communication quality
- Highly dependent on laptop Bluetooth stack (Windows 10+ required)



RSQ 3.2 – New Features and Added Benefits



1

PC Bluetooth (no dongle required)

2

Compass Calibration start delay

3

USGS Extrap automatically applied to Moving Boat and Stationary measurements

4

Made GNSS/BT loss more obvious

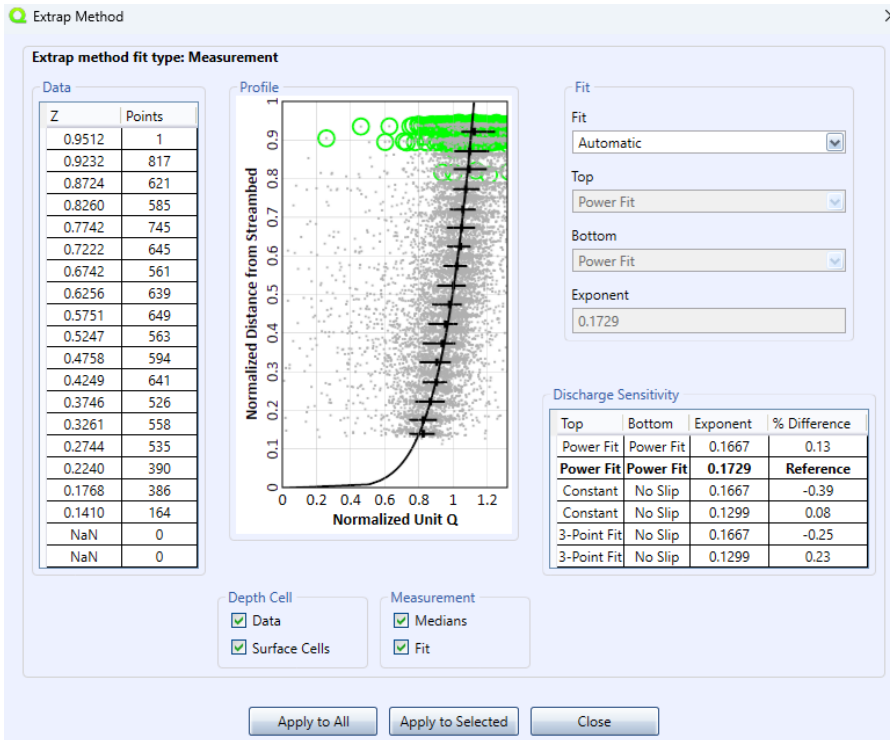
5

Stationary: include magnitude method

6

Fixed some critical crashes (during compass calibration and Stationary measurements)

RSQ 3.2 – New Features and Added Benefits



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PC Bluetooth (no dongle required)

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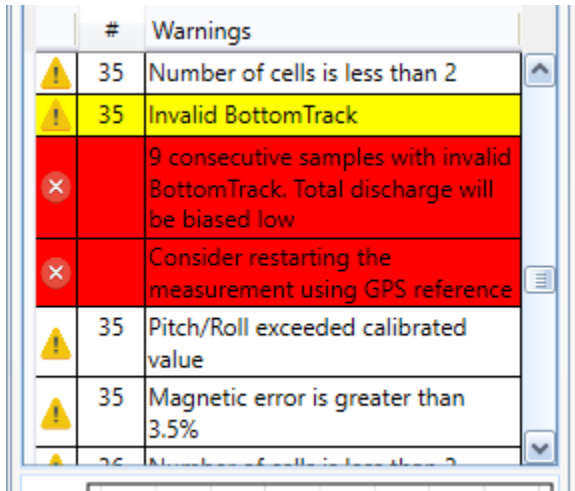
5

Stationary: include magnitude method

6

Fixed some critical crashes (during compass calibration and Stationary measurements)

RSQ 3.2 – New Features and Added Benefits



	#	Warnings
⚠	35	Number of cells is less than 2
⚠	35	Invalid BottomTrack
✖		9 consecutive samples with invalid BottomTrack. Total discharge will be biased low
✖		Consider restarting the measurement using GPS reference
⚠	35	Pitch/Roll exceeded calibrated value
⚠	35	Magnetic error is greater than 3.5%
⚠	35	Number of cells is less than 2

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RSQ 3.2 – New Features and Added Benefits

The screenshot shows a configuration window for RSQ 3.2. It contains several input fields and dropdown menus. The 'Water Type' dropdown is set to 'Open Water'. The 'Initial point (m)' field is empty. The 'Between stations (m)' field is set to 0. The 'Depth below water surface (m)' field is set to 0. The 'Water Depth (m)' field is set to 0. The 'Distance (m)' field is set to 0. The 'Method' dropdown is set to 'Azimuth / ENU'. The 'Correction' dropdown is set to 'Azimuth / ENU'. The 'Fixed / XYZ' dropdown is set to 'Fixed / XYZ'. The 'Magnitude' dropdown is set to 'Magnitude'. The 'Correction Factor' field is set to 1.000. The 'Height (m)' field is set to 0. The 'Water Height (m)' field is set to 0. The 'Observation Time (UTC-7)' field is set to '2025-10-01 15:37'. At the bottom, there are buttons for 'OK', 'Cancel', 'Previous', and 'Add End Edge'.

Water Type	Open Water
Initial point (m)	
Between stations (m)	0
Depth below water surface (m)	0
Water Depth (m)	0
Distance (m)	0
Method	Azimuth / ENU
Correction	Azimuth / ENU
Fixed / XYZ	Fixed / XYZ
Magnitude	Magnitude
Correction Factor	1.000
Height (m)	0
Water Height (m)	0
Observation Time (UTC-7)	2025-10-01 15:37

OK Cancel Previous Add End Edge

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RSQ: What Sets it Apart?

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1

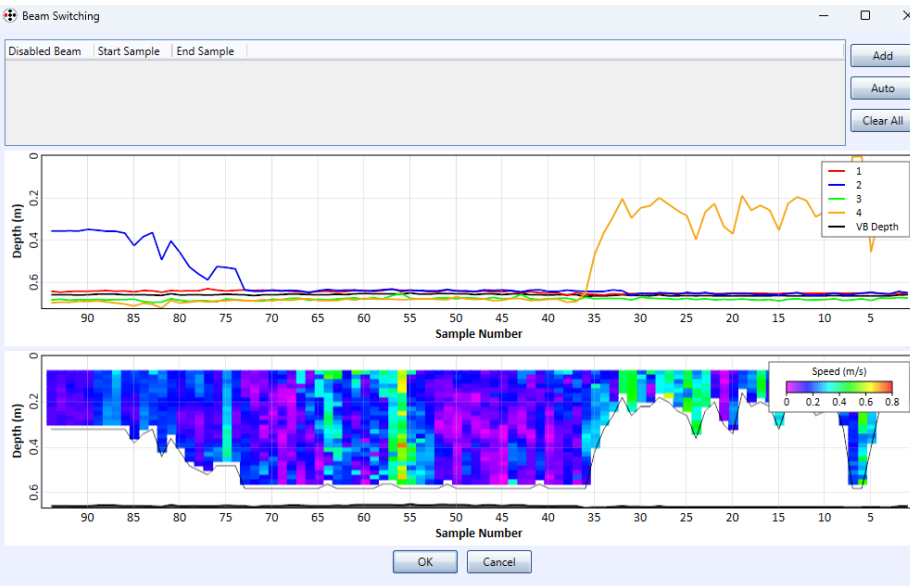
Beam Switching

2

KML Exports – Google Earth

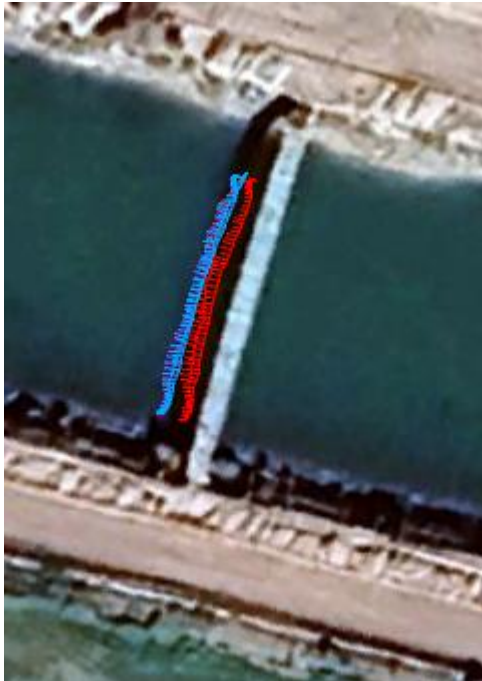
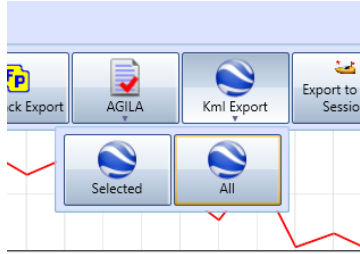
3

Sub-sectioning a Measurement



Chapter slide

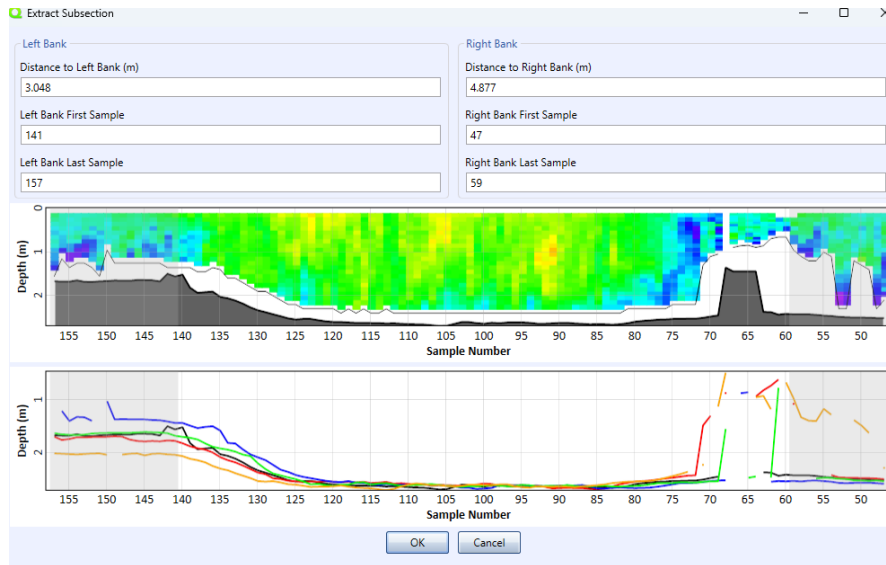
Quisque vestibulum, dolor sit amet mollis sollicitudin



- 1 Beam Switching
- 2 **KML Exports – Google Earth**
- 3 Sub-sectioning a Measurement

Chapter slide

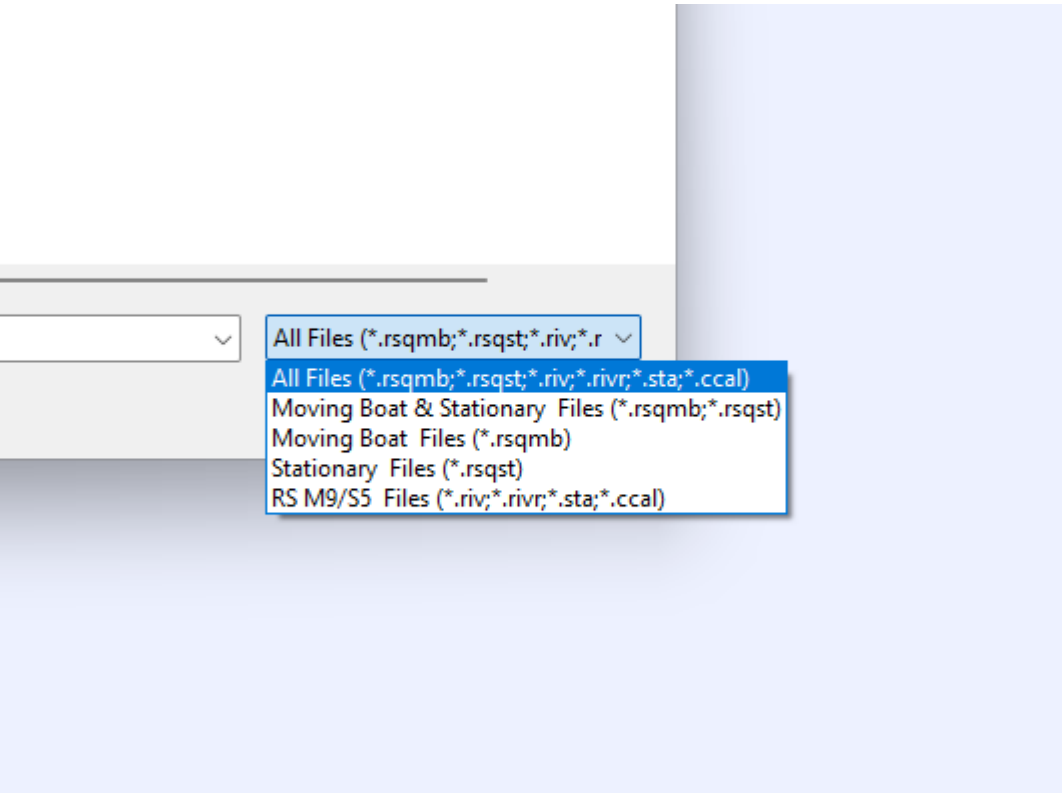
Quisque vestibulum, dolor sit amet mollis sollicitudin



- 1 Beam Switching
- 2 KML Exports – Google Earth
- 3 **Sub-sectioning a Measurement**

Using RSQ on M9 Files

Using RSQ on M9/S5 Files



Use all of the powerful post-processing tools in RSQ on existing M9/S5 data



Easily open any .riv/.rivr/.sta file



Flexibility to save files as .rsqmb or .rsqst



Open additional files in RSQ (compass cal)

Coming Soon to RSQ

Coming Soon to RSQ

1

Bluetooth to GNSS (no more GNSS cable!)

2

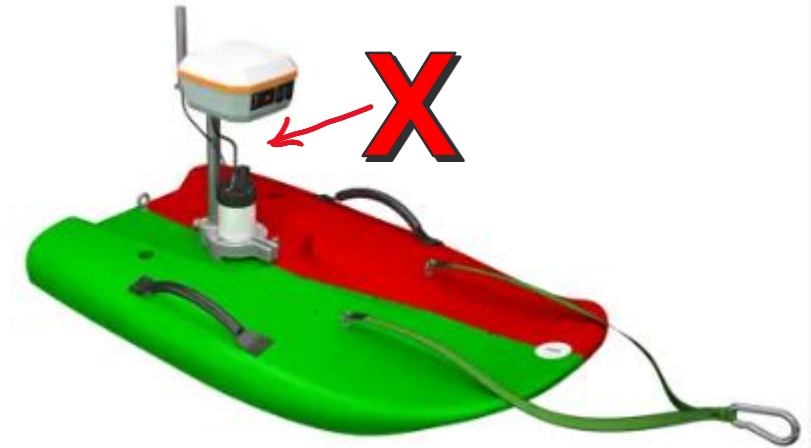
Many improvements to Stationary (more data views and options, beam switching, QA/QC warnings to match QRev-MS, KML export, and more)

3

Loading background images to ship track window

4

Please submit your ideas!



THANK YOU
Questions/Comments?