



Ref: FAQ0305

Version: 1.0

Title- Radwin Function sets -square root

Made By: AB 22/09/15

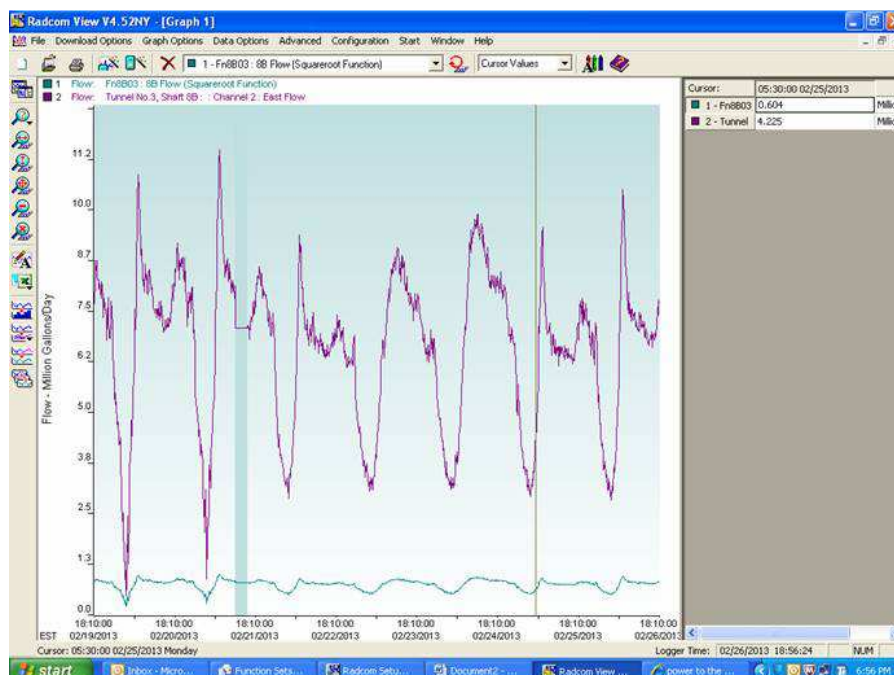
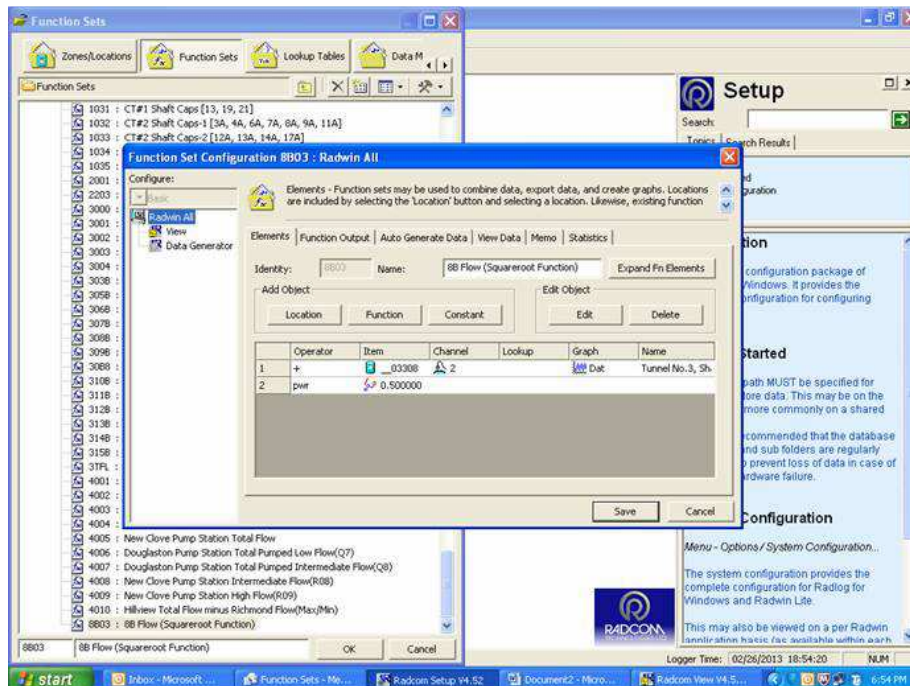
(Issue 2)

Radwin Function sets – how to apply a square root function

A Customer was having difficulty creating a “seemingly” trivial function set – i.e. simply trying to square root some data.

As shown below: the customer had added the location and particular channel desired, and then added a second line for power raised to one half in order to obtain the square root.

The second screenshot shows the result of running the function set...the square root of 4.225 is definitely not 0.604!



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HWM Confirms 0.5 will perform a square root correctly. However, using numeric operations in function sets must be done with caution. The data is created as base unit data, in this case gallons/sec, and the maths operations will be performed in these gallons/sec base units. Unit conversions to units other than base units are applied to the data after the square root has been applied.

i.e. to change the values from the base unit gallons/sec to million gallons/day a factor of 86400/1000000 will be applied to both the original gallons/sec data and the square root gallons/sec data to produce the million gallons/day graphs. Therefore the gallons/sec square root data will display as the square root of the original data, but when both are converted to million gallons/day the function set data will no longer have a direct square root relationship to the original data.

Document History:

Edition	Date of Issue	Modification	Notes
1st	27/02/13	Release	
2nd	22/09/15	Format update	