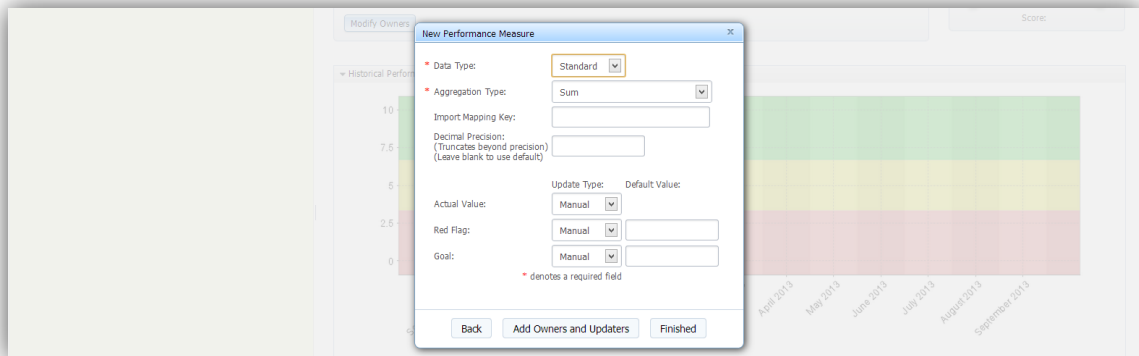


Calculated Metrics

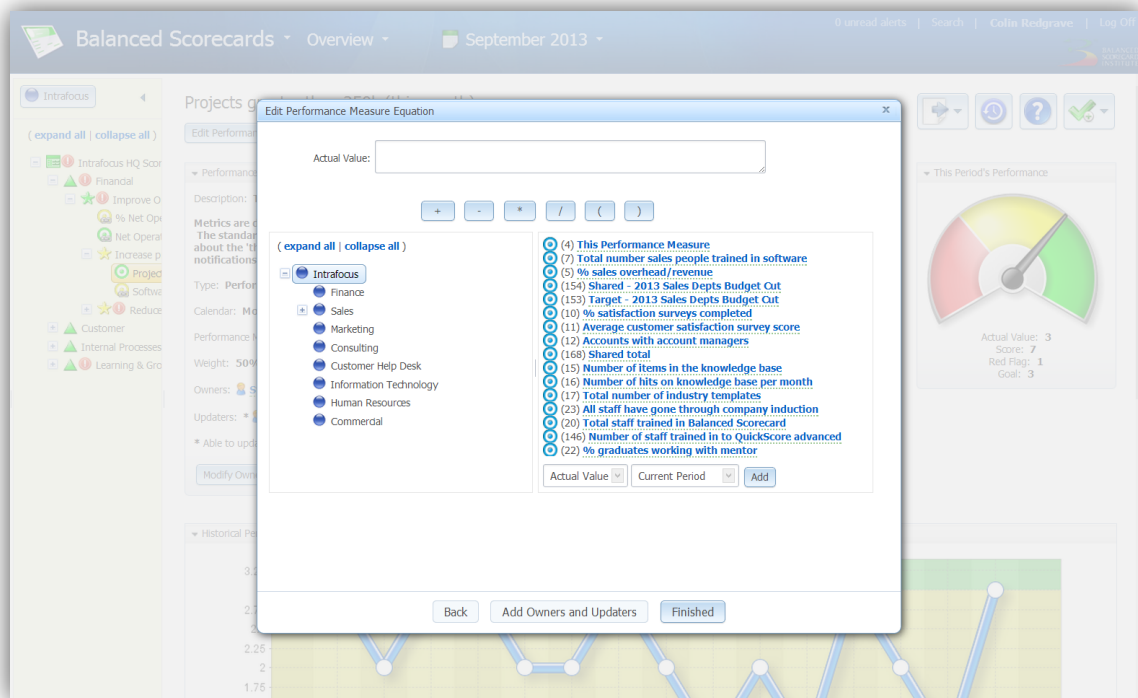
When creating a metric it is possible to 'calculate' values for the Actual and Threshold Values for the metric. During create metric dialogue, after you have selected the Scoring Type you will see a dialogue box like this:



Towards the centre of this box are three drop-down menus currently displaying the word 'Manual'. This indicates that the values for these items will be 'Manually' entered into the system. Should you wish to perform a calculation on any of these items the click on the drop-down and select 'Calculated'.

(For information on other parts of this dialogue refer to the Quick Start guide - Creating Metrics)

If you select Calculated from the drop-down menu, a 'Next' option will appear at the bottom to take you to an additional dialogue screen like this:



This part of the dialogue provides the opportunity to ‘calculate’ a metric Value based on other metrics in the system. This is similar to the way you might calculate a value in a ‘cell’ in a spreadsheet. Each metric has a unique identifier; this is used in the calculation. The calculation box is at the top. Many different types of calculations can be defined.

Defining a Calculation

For example, if this new metric was “Number of items in knowledge base less industry templates”, to subtract the ‘Number of industry templates’ from the ‘Number of Items in the knowledge base’, the equation would be $M(15) - M(17)$. This would be arrived by doing the following:

- Click on ‘Number of items in the knowledge base’ and click Add
- Click on the ‘-’ sign button
- Click on ‘Number of industry templates’ and click Add

When you have completed your equation, click on Finished. You will notice that the metric will now be described as ‘calculated’.

Operands

There are a large number of operands that can be used in the calculation box:

Trigonometric Functions:

Description	Function Name
Sine	sin(x)
Cosine	cos(x)
Tangent	tan(x)
Arc Sine ²	asin(x)
Arc Cosine ²	acos(x)
Arc Tangent	atan(x)
Arc Tan with 2 parameters	atan2(y, x)
Secant	sec(x)
Cosecant	cosec(x)
Co-tangent	cot(x)
Hyperbolic Sine	sinh(x)
Hyperbolic Cosine	cosh(x)
Hyperbolic Tangent	tanh(x)
Inverse Hyperbolic Sine	asinh(x)
Inverse Hyperbolic Cosine ¹	acosh(x)
Inverse Hyperbolic Tangent ¹	atanh(x)

Log and Exponential Functions:

Description	Function Name
Natural Logarithm ¹	ln(x)
Logarithm base 10 ¹	log(x)
Logarithm base 2 ¹	lg(x)
Exponential (e ^x)	exp(x)
Power ¹	pow(x)

Statistical Functions:

Description	Function Name
Average	avg(x1,x2,x3,...)
Minimum	min(x1,x2,x3,...)
Maximum	max(x1,x2,x3,...)

Rounding Functions:

Description	Function Name
Round	round(x), round(x, p)
Floor	floor(x)
Ceiling	ceil(x)

Miscellaneous Functions:

Description	Function Name
If	if(cond, trueval, falseval)
Str (convert number to string)	str(x)
Absolute Value / Magnitude	abs(x)
Random number (between 0 and 1)	rand()
Modulus	mod(x,y) = x % y
Square Root ¹	sqrt(x)
Sum	sum(x,y,...)
Binomial coefficients	binom(n, i)
Signum (-1,0,1 depending on sign of argument)	signum(x)