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:

| | New Performance Measure | x | Score: |
|-------------------|---|-----------------------------|--|
| - Historical Perf | * Data Type: | Standard 💌 | |
| | * Aggregation Type: | Sum | |
| | Import Mapping Key: | | |
| | Decimal Precision: (Truncates beyond precision (Leave blank to use default) | | |
| | | Update Type: Default Value: | |
| | Actual Value: | Manual 💌 | |
| | Red Flag: | Manual 💌 | |
| | Goal: | Manual 💌 | |
| | * den | otes a required field | |
| | | | and and any and an and any and any and any and any and any |
| | Back Add Ov | vners and Updaters Finished | and the second second second second second |
| | | | |

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:

| | Scorecards | 5 * Overview * 📑 Sej | ^{0 unread} | alerts Search Colin Redgrave Log Of |
|--|--------------------------------|---|---|---|
| Intrafocus 4 | Projects g | dit Performance Measure Equation | | × 🖓 🕢 🕐 🔧 |
| (expand all collapse all) | Edit Performan | | | |
| Intrafocus HQ Scor Imandal | - Performance | Actual Value: | | → This Period's Performance |
| | Description: 1 | + - | | |
| 😡 % Net Ope 🔕 Net Operal | Metrics are c The standar | | | |
| | about the 'th notifications | (expand all collapse all) | (4) This Performance Measure (7) Total number sales people trained in software | |
| | Type: Perfor | Intrafocus | (5) % sales overhead/revenue (154) Shared - 2013 Sales Depts Budget Cut | |
| E 🔀 Reduce | Calendar: Mo | Finance Sales | (153) Target - 2013 Sales Depts Budget Cut (10) % satisfaction surveys completed | |
| 📧 🛕 Customer | Performance N | Marketing | (11) Average customer satisfaction survey score (12) Accounts with account managers | Actual Value: 3 |
| A Internal Processes A 0 Learning & Gro | Weight: 50% | Consulting Customer Help Desk | (168) Shared total (15) Number of items in the knowledge base | Score: 7 Red Flag: 1 |
| | Owners: 🙎 S | Information Technology | (16) Number of hits on knowledge base per month (17) Total number of industry templates | Goal: 3 |
| | Updaters: * (| Human Resources Commercial | (23) All staff have gone through company induction (20) Total staff trained in Balanced Scorecard | |
| | * Able to upda | | (145) Number of staff trained in to QuickScore advanced (22) % graduates working with mentor | |
| | Modify Own | | Actual Value 🗹 Current Period 🔍 Add | |
| | | | | |
| | | | | |
| | 3.1 | | | |
| | 2.7 | Back | Add Owners and Updaters Finished | |
| | 2.25 - 2 - 1.75 - | | | |

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) |