

Technical Note

Advanced Topics for Tecan Magellan Software

Cutoffs

In an effort to make Magellan easier to use for customers, this is one in a series of technical notes on how to use the advanced features of this very powerful software package.

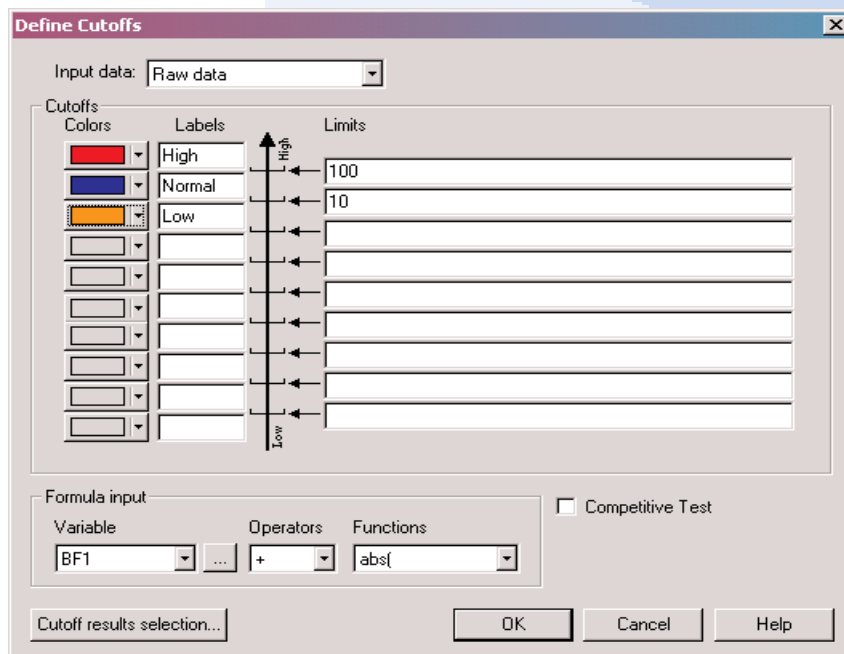
GENERAL COMMENTS

The *Cutoffs* tools allows Magellan users to categorize data results visually by means of color-coded wells and/or by labels based on a pre-defined set of parameters. These parameters can be either a set numerical limit or a limit based on a formulaic calculation.

These results are scored in a qualitative fashion (yes/no, high/normal/low, etc.)

SETUP of the CUTOFF PARAMETERS

One or more limits may be defined in the *Define Cutoffs* window. Samples will then be grouped in ranges and identified by color and/or label:



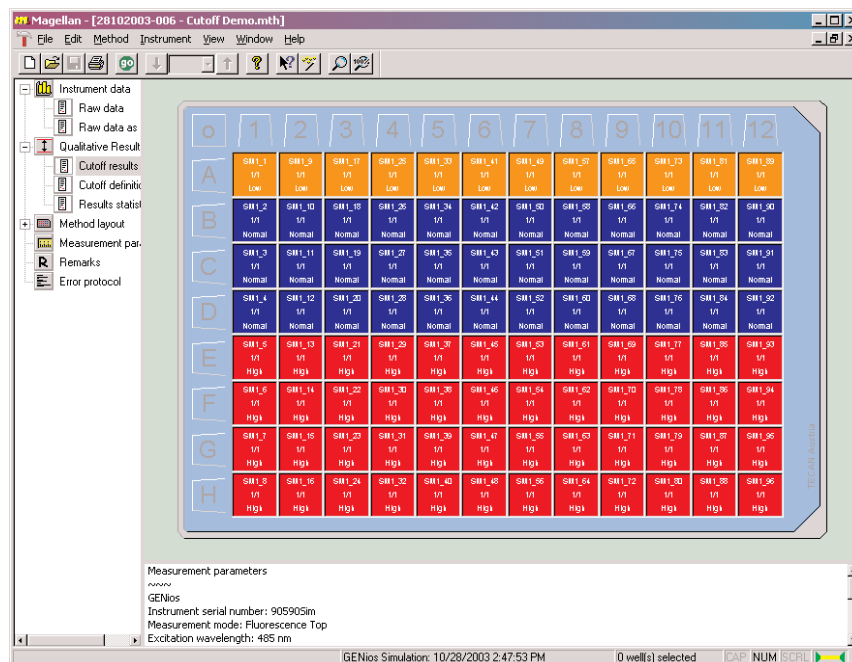
In this example screenshot, all samples with a *Raw Data* value of greater than 100 will be labeled "high", and sample falling between 10 and 100 will be "normal", and below 10 will be "low".



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The results of the plate will look like this:



Row A shows samples that are below 10, and are therefore "Low". Rows B, C, and D show samples between 10 and 100, and are therefore "Normal". Rows E, F, G, and H show samples that are over 100, and are therefore "High".

While the example shows data with set numerical *Limits*, these limits could be set using a formulaic calculation (such as $x + 10$, where x is the value of the read in a given well). This can be done by typing the formula into the *Limits* window, or using the *Formula Input* box.

Additionally, *Raw Data* is not the only information that can be used as the input data. Any data calculated from a *Transformation* (see the *Transformations Window*) can be selected as well.

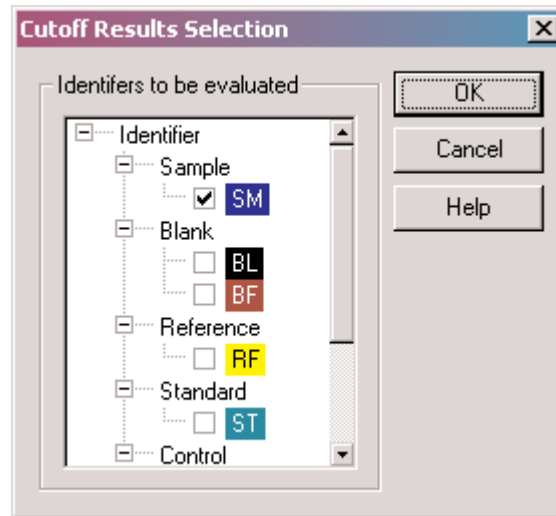
The *Competitive Test* checkbox allows the user to set positive results to low values and negative results to high values. This will result in the *Low-High* arrow being reversed.



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The *Cutoff Results* Selection window allows the user to select which types of wells (samples, standards, blanks, etc.) will be selected for the *Cutoff* functions to be applied to. The default is to apply the *Cutoff* parameters to *Samples* only.



FOR ADDITIONAL INFORMATION ON MAGELLAN

Please contact the Technical Support group at Phenix Research Products for additional information on this process, or to obtain information on other advanced Magellan topics.

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