

Bika Interlab 1.1

Functional specification and use cases

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Confidential

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1 Purpose of this document

This document is used to establish a common understanding of what is required by the client. In layman's language

It also serves as a functional specification for programmers and quality control tool

It is used to estimate development cost and establish a quote

2 Document convention

Important

Only functionality additional to that already available in Bika Interlab 1.0 is discussed here

A specification of Interlab 1.0 is available on request from lemoene@bikalabs.com. For more background, please also see the Interlab project page at bikalabs.com, www.bikalabs.com/softwarecenter/bikainterlab

The Interlab authority that organises the inter-laboratory rounds, is called '**the association**' in this document

All uses cases are formatted like this and acted out by role players which can be the LIMS itself, the **system**, or any user authorised as **admin**, **manager**, **sample supplier**, or member lab **contact**

In most cases member lab refers to the member's **contact** as their representatives are known in the system

For each use case it is assumed the role players are logged-on and authorised to execute the actions required by them. Pedantics, like 'click submit to save changes' are omitted

3 Development Items

3.1 Analysis selection for interlab rounds

The association does not always want to include all of the analyses set up in the system. Currently all analyses are included in every new round of sample releases

Also, to maintain database integrity, the manager cannot delete discontinued analyses

In Interlab 1.1, the manager navigates to the list of analyses and check the analyses to be included. Only those analyses checked are included in subsequent rounds and result emails

Select analyses to be included in rounds

Role players: manager, system

1. the role player navigates to the the **Analyses** set-up area
../bika_services
2. she selects analyses to be included in new interlab rounds, by checking those to be included
3. the inclusion can also be checked on every specific analysis' page
../bika_services/analysisservice_###
4. when new samples/testing rounds are created, only those analyses checked, are included
5. logically, only those included with the sample are shown on the sample pages
../memberlabs/memberlab_##/S####
6. ditto results publication, only those included for the sample

3.2 Methods per analysis restriction

The association wants to restrict the methods used by member labs to a previously determined short list per analysis

The functionality already exists to restrict a certain analysis to one method. The **Fix/Attach to method** field in the analysis set-up is used for this
../bika_services/analysisservice_###

This has to be extended to a multiple selection list. When the manager set up an analysis, she selects the methods 'allowed' for that analysis from the full list of methods set up in the system

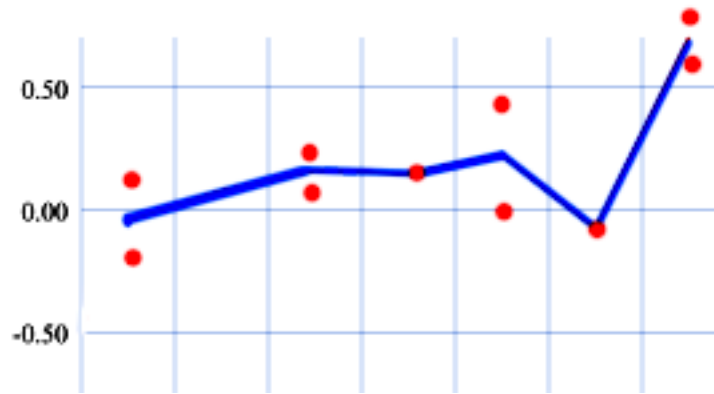
When the member lab captures an analysis' results, only the methods allowed for that analysis are offered for selection

'Allowed methods' per analysis set-up

Role player: manager

1. the role player navigates to the the **Analyses** set-up area, and select the analyses to be configured, say pH





New Z-value graph showing same date results as separate points on the same x coordinate.
 The 'trend' line is connected through the average value for same date data
 Where there was only one result for a particular date, that point is on the trend line

3.4 Top performers list

As a fun element and further inspiration to better performance, lists of the best performing labs are displayed in context on the Interlab site. It is not available to anonymous visitors and can only be seen when logged in

When a testing round closes, scores are calculated for members from their results for the most important analyses. The selection of analyses to be used is maintained by the **system manager** in the set-up

Also in the set-up, a numeric score is assigned to performance indicators for analyses. Currently an A scores 2, a B scores 1 and the rest nothing

The scores are tallied up and the lab with the highest score gets position one on the top performers list, then 2nd and so forth

Shared scores get the same list position, e.g. where two labs have equal scores in 2nd position, the top 5 is listed: 1, 2, 2, 4, 5

For the purposes of the use cases to follow, the top performers list is called '**the Top 5**'

View Top 5

Role players: manager, member lab

1. the lists are only displayed to the the above authorised role players
2. only for closed samples
3. In a portlet at right
4. on Sample pages, the Top 5 list for that specific sample
 /memberlabs/memberlab_###/S###
 /memberlabs/memberlab_###/S###/analysisservice_###
5. all other pages display a number of lists, , specified in the set up, beneath one another. starting with the most recently closed sample

typically the association releases 2 samples per month and would specify 2 Top 5s

Let's assume 2 Top 5s are specified in the set-up



Top 5s are listed for the 2 most recently closed samples in reverse sample ID order, e.g.

S07-010

1. Lab *****, ###
2. Lab *****, ###
3. Lab *****, ###
4. Lab *****, ###
5. Lab *****, ###

S07-009

1. Lab *****, ###
2. Lab *****, ###
3. Lab *****, ###
4. Lab *****, ###
5. Lab *****, ###

6. they are listed as illustrated above: Position, Lab name, Score
7. the lengths of the lists are determined in the set-up, e.g. the top 5, top 10, etc

Top 5 set -up

Role player: manager

1. the role player navigates to the 'Performance lists' set-up area
2. she enters the length of the list to be displayed. default is 5 but this can be increased or decreased, for example to 10
3. she enters for how many samples lists must be displayed on general pages (on sample pages, only the list for that sample is displayed)
4. she selects the analyses to be used for member lab scores, from a drop down of all the analyses available and previously set up

currently, the organisation selects 7 analyses for the Top 5 calculation out of a total of 20: Alcohol, VA, Reducing sugar, TA, pH, SO2 Ripper and SO2 Aspiration

5. she assigns scores to each of the performance indicators A, B, C, D, E. currently it would be: A = 2, B = 1, C = 0, D = 0 and E = 0
6. she saves her edits

Calculate scores

Role player: System

1. when a sample closes, labs are scored for their performance on every analysis for that sample

e.g. 2 for an A for Alcohol, 1 for a B for Volatile Acid, 0 for a C on Total Acid, etc
1. labs score 0 for any of analysis not submitted



2. only the scores for the analyses set-up for inclusion in Top 5 calculations, are added up for the lab's **total**
3. the individual score per analysis and the 'Top 5' total are stored on the database for display purposes later

NB It probably make sense to save individual scores for all analyses included in that round. Labs score 0 for analyses not submitted

NB It is thus important to note that the 'Top 5' total saved to the DB, is the score totalled for only those analyses set up for top 5 inclusion when the sample closed

4. Labs with same scores get the same list position, e.g. where two labs have equal scores in 2nd position, the top 5 is listed: 1, 2, 2, 4, 5:

S###

1. Lab qqg, 120
2. Lab www, 100
2. Lab eee, 100
4. Lab rrr, 90
5. Lab ttt, 80

3.4.1 Optional: Lab's own position

Regardless of the member lab's own performance, its score, position and total number of participants are displayed to contacts from the lab itself like this

S###

1. Lab qqg, 120
2. Lab www, 100
2. Lab eee, 100
4. Lab rrr, 90
5. Lab ttt, 80

Your score: 55

Position 17 in round of 42

NB Total number of participants should be calculated at sample closing time and stored too. Total number of participants equals the number of member labs that actively participated for that sample, ie NOT the number of member labs registered on the system

