

Sample Receipt and Processing Report Generator for SCAN-B

The report generator creates several reports. Reports contain data from defined queries of biomaterials and calculated statistics. Results are presented as tables viewable in the GUI. It should be possible to save data in tables as tab-delimited text files.

As a start, biomaterials in the active project should be returned when running queries. As a second development step the option to run without an active project can be supported, i.e., return all biomaterials including all owned by other.

Example 1. Sample Count Report:

Query biomaterial of type Sample.

Restrict query using:

- filter on Name (Sample property), i.e. == %.1% (BASE style wildcard)
- interval on Created (Sample property), i.e. 2010-01-01 - 2010-12-31

Compile data and accessory data required to create tables (specified below). Some information is available as Sample properties whereas some information is available as Sample annotations. Some information such as 'site' must be derived from Sample names. In SCANB (BASE Lorry) Created data for samples in this specific example corresponds to date of surgery.

Tabulate number of Samples by site, with column and row grand totals:

- A. of tumor samples per site per month (using Created date)
- B. of tumor samples per site per week

Figure 1. *Sample Count Report* table by site and month:

# Specimens by Month (through 2011-10-06)																
Site	Start Date	2010				2011										Grand Total
		Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct (to 6th)	
Halmstad	2010-10-01		4	6	7	7	7	8	13	18	12	9	6	13	1	111
Helsingborg	2010-11-01			16	12	10	15	19	20	19	16	11	11	19	3	171
Karlskrona	2010-10-04		6	11	8	9	10	14	6	5	14	7	5	6	2	103
Kristianstad	2010-09-15		6	9	16	14	12	6	12	15	19	14	14	19	6	162
Lund	2010-11-10			1	12	13	10	12	11	18	10	12	6	11	3	119
Malmö	2010-08-30	3	27	18	19	11	17	22	12	20	19	9	22	18	7	224
Växjö	2010-10-01		6	8	13	5	17	10	13	11	7	4	2	10	3	109
Sites Combined		3	49	69	87	69	88	91	87	106	97	66	66	96	25	999

- Site is derived from the first two characters of the Sample name according to a configuration key: 11=, 22=, 33=, 44=, 55=, 66=, 77=
- Note that column with 'Start Date' in Figure 1 is hard coded, i.e., each site has a fixed start date for when SCANB was launched. These dates can be included in the configuration for site.
- Note that column 'Oct (to 6th)' in Figure 1 is specifying the last day of the last month used in the query interval.
- The table header should include the query interval, e.g., 'Specimens by Month between 2010-01-01 and 2010-12-31'. Note that the table header in Figure 1 reads '# Specimens by Month (through 2011-10-06)'.

- There may be Samples that miss value for Created data or does not match the expected naming convention used in the configuration key for site. These Samples cannot be included in the table presented but should be counted and the numbers should be presented in a table footer.

Below is a more comprehensive raw listing of additional Example reports

Examples of additional stratification options for *Sample Count Report*

Sample Count Report Specifications:

Tabulate number of Samples by site, with column and row grand totals:

of tumor samples per site per month (using Created date)

of tumor samples per site per week

of left sided cases, # of right sided cases, # of bilateral cases

of specimens from primary surgeries, # of pre-operative core biopsies, # of fine needle aspirates, (others...), per site per month

stratification per quarter instead of per month or week

Example 2 Sample Processing Report:

Tabulated by site, with column and row summary statistics:

of specimens AllPrep processed, average RNA ug yield/min-max/SD, average RNA yield per mg input issue (ug/mg) with SD, % samples >1ug/>2ug/>3ug, average RIN value/min-max/SD, average DNA ug yield/min-max/SD, average DNA yield per mg input tissue (ug/mg) with SD, average ratio of RNA to DNA yield.

Same as above but summarized by month

Same as above but summarized over 2-months and split by AllPrep operator

example by site:

Summary of RNA/DNA AllPrep Processing (through 2011-03-24)								
Site	# Samples AllPrep Processed	Average RNA yield (ug) (Min-Max) [StDev]	Average RNA yield per mg Input Tissue (ug/mg) [StDev]	% Specimens with >3ug RNA	Average RIN (Min-Max) [StDev]	Average DNA yield (ug) (Min-Max) [StDev]	Average DNA yield per mg Input Tissue (ug/mg) [StDev]	Average DNA/RNA yield (ratio)
Blekinge	53	26.5 (2.6 - 76.2) [18.7]	0.8 [0.5]	90.6%	8.6 (7.3 - 9.5) [0.6]	36.3 (1.2 - 90.3) [21.7]	1.1 [0.7]	1.6
Halmstad	36	22 (1.7 - 67.9) [17.7]	0.8 [0.5]	86.1%	8.4 (5.2 - 9.7) [1.2]	29.3 (2.6 - 73.5) [22.3]	1.1 [0.8]	1.6
Helsingborg	63	27.3 (0.5 - 79.5) [22.9]	0.9 [0.6]	90.5%	8.8 (5.9 - 9.8) [0.8]	34.7 (0.5 - 89.4) [25]	1.2 [0.7]	1.5
Kristianstad	61	29.5 (1.1 - 99.1) [21.5]	0.8 [0.5]	95.1%	8.7 (6.6 - 9.7) [0.7]	40.5 (3.1 - 88.2) [21.4]	1.2 [0.6]	1.7
Lund	46	25.6 (3.1 - 131.3) [25]	0.7 [0.6]	82.6%	8.8 (5.2 - 9.6) [0.8]	31.8 (0.3 - 95.6) [21.2]	0.9 [0.6]	1.5
Malmö	110	24.9 (0.8 - 99.4) [20.5]	0.9 [0.6]	87.3%	9 (6.8 - 9.7) [0.6]	34.5 (0.7 - 98.7) [22.9]	1.2 [0.7]	1.7
Växjö	53	26.2 (0.6 - 122.8) [29.1]	0.8 [0.7]	92.5%	8.7 (5.9 - 10) [0.8]	32.4 (0.4 - 88.7) [26.6]	1 [0.7]	1.6
Sites Combined	422	26.2 (0.5 - 131.3) [22.3]	0.8 [0.6]	89.3%	8.8 (5.2 - 10) [0.8]	34.7 (0.3 - 98.7) [23.2]	1.1 [0.7]	1.6

Example 3 Sample Processing TimeToRNAlater Report

Tabulated by site, with column and row summary statistics:

of specimens, average specimen weight and SD, average time from operation to RNAlater with SD and min-max. [samples with a time of 0 should be excluded from the time calculations]

Same as above but summarized per month

example by site:

Summary of Specimen Samples (OP to RNAlater) (through 2011-03-24)			
Site	# of Specimens	Average specimen weight (mg) (Min-Max)	Average time to RNAlater (hh:mm) (Min-Max)
Blekinge	53	86.5 (18 - 268)	0:25 (0:07 - 0:50)
Halmstad	36	97.5 (4 - 405)	0:24 (0:10 - 1:09)
Helsingborg	63	74.7 (6 - 298)	0:53 (0:15 - 1:47)
Kristianstad	61	126.7 (9 - 454)	0:40 (0:15 - 1:11)
Lund	46	128 (7 - 613)	1:05 (0:25 - 2:07)
Malmö	110	88.8 (8 - 479)	1:18 (0:15 - 4:00)
Växjö	53	83.5 (10 - 291)	0:47 (0:15 - 1:23)
Sites Combined	422	96.2 (4 - 613)	0:52 (0:07 - 4:00)

Example 4 Patient Consenting Report

Tabulated by site, with column and row grand totals:

of patients registered per site per month (using date of consent)

of patients registered per site per week

of patients registered through 2 months ago with a tumor sample received to date

(# of patients registered through 2 months ago with a blood sample taken to date)

Example 5 Pathology Referral Report

Tabulated by site with column and row summary statistics:

% of referrals with missing information per month

% of referrals with no tumor specimen sent per month

example by site:

Summary by Pathology Referrals Received		
Site	% Referrals with missing information*	% Referrals with no tumor specimen sent
Blekinge	40.0% (10/25)	0.0% (0/25)
Halmstad	11.8% (2/17)	15.0% (3/20)
Helsingborg	57.1% (16/28)	6.7% (2/30)
Kristianstad	15.4% (4/26)	21.2% (7/33)
Lund	25.0% (2/8)	33.3% (4/12)
Malmö	80.0% (52/65)	17.7% (14/79)
Växjö	11.5% (3/26)	29.7% (11/37)
Sites Combined	45.6% (89/195)	17.4% (41/236)

* Note = Only referrals that were accompanied by a tumor specimen were evaluated for missing information.