

cResults Presents: Smart-QC™

The most robust platform for QC Laboratories - capacity planning for analysts / instruments and tests allocation to analysts across the various laboratories

Laboratories are being asked to control Cost of Goods (COGs) and improve their efficiency and cycle time in the QC Labs. In recent years quality operation has begun leveraging lean and six sigma, general re-engineering and solid industrial engineering techniques in order to improve efficiency, and **cost of quality**. QC laboratories are expected to deliver reduction of 30%-50% of sample turn around time, and reduce backlog, improve on-time delivery and delivery consistency by 30%-50%. Other goals are enhance visibility, improve their overall span of control, improve analyst efficiency by 20-30%, and allow business expansion with minimal lab personnel increase. In order to achieve these aggressive yet feasible goals, compliment to lean and six sigma initiatives, a business tool as **Smart-QC** is required. **Smart-QC** is a robust capacity planning and automate test's allocation to analyst.

cResults and ERD have developed methodologies and tools to support QC in their journey of process excellence. Following an assessment focus on the current state and the as is processes and uses Interviews, Brainstorming, Process Mapping and Flows, Floor Observation, Benchmark, Review standards transaction and other information. cResults consultants will work with the lab's process excellence team set the stage for the implementation of Smart-QC. **Smart-QC** composes of three major modules: (1) **Robust capacity planning** for both analysts and instruments (2) **Test allocation** provides a platform to deliver daily test allocation to analysts across the various laboratories (3) **Cost of Quality (COQ)**. Other significant components of Smart-QC are: Report generator that allows the users to query the systems and provide reports, charts based on pre-define templates, integration services primarily to import data from LIMS – sample arrival and ERP – periodical forecast for long term planning. Smart-QC provide a set of KPI in areas as sample cycle time, analyst efficiency, on-time delivery, cost per sample and more.



When you are experiencing the following issues at your laboratories cResults with Smart-QC can add value: **Excessive over time** to meet demands and to satisfy **service level**, **capacity shortages** that may suggest adding another shift, **longer cycle time** and **inconsistent delivery**, **volume increase** that require **lab expansion**, **high cost of quality**, and lack of meaningful **key performance indicators**.

Smart-QC Implementation Stages



"What if" scenarios, KPI development, Smart-QC Training and deployments

cResults
Boosting Operating Performance

SMART QC
Manage Efficiency

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The Smart Choice for Lab Efficiency Management Platform

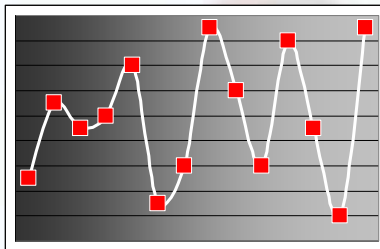
cResults can address many of the growing pains at the QC laboratories as it recognizes the complexity of such an operation. A simple example will illustrate the QC complexity often ignored: If we will use an average of 40 samples a day (all labs) and 6 tests per sample with 10 day turnaround time than the number of tasks that need to be scheduled and managed are **2,400 !!!** ($40 \times 6 \times 10$).

The charts on the right illustrate the added complexity of managing typical fluctuations of samples arrival during the course of a month. This leads to the need to effectively prioritize incoming sample of raw material, micro, finished goods, stability and in-process testing, prioritize samples based on business needs and resources availability. Furthermore, it presents the need to seek for optimize the samples campaign practices, and to improve efficiency. The need to measure and tracking test / sample is imperative for any improvement initiative in areas such as cycle time, analyst efficiency, instruments utilization. Therefore, Smart-QC ability to provide the QC management team with meaningful and accurate KPI allowing continual productivity improvement.

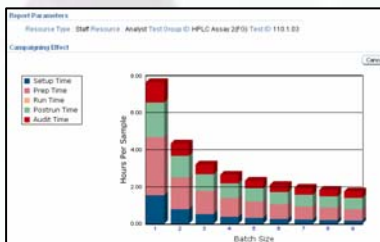
WE AT cRESULTS CAN HELP YOU MAKE YOUR LABORATOIRES MORE EFFICIENT AND PRODUCTIVE WITH BETTER SPAN OF CONTROL IN THE MOST COST EFFECTIVE MANNER.

About cResults Consulting: cResults, an affiliate of IPS, is poised to provide consulting services to improve the overall operational performance of its clients by reducing costs, increasing productivity and improving overall organization efficiency. cResults is the leader in Operations Consulting specializing in the Life Science and Microelectronics Industries. Founded in 2005, cResults is owned and managed by industry trained and experienced professionals.

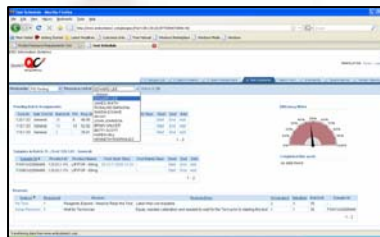
About ERD Information Systems: ERD is a leader in providing software solutions for diversified industries. The company was founded in 1998 in Israel and started its US operation in 2002. ERD information systems mission is to provide state-of-the-art enterprise-wide software management tools that help streamlining quality operations improve efficiency, lower costs and reduce cycle time. The company's flagship product, Smart-QC was developed with some of the industry leaders to address a broad operational complexity of the laboratories.



Typical demands fluctuations across QC Labs



Optimizing the campaign size to improve efficiency and cycle time



Test allocations and overall analyst and instrument work load when importing demands

Features and functionality

- Scalable System – can accommodate multiple labs / sites
- Flexible allocation criteria
- Configurable to meet your laboratories structure
- Easy to use and provide security level aligns with the labs' structure
- Robust reporting tools with dozens of already defined templates
- Advanced integration with LIMS and other feeder systems integration

Smart-QC Key benefits

- Identify the required analyst and instruments for each work center for a given forecasted demands
- Determine cost per product/sample/test
- Determine value added vs. non-value added
- Predict expected backlog and react accordingly
- Optimize the campaign size for major assays
- Provide meaningful key performance indicators
- Balance capacity based on given demands to reduce overtime and waste

Smart-QC™ - Reports

cResults the most knowledgeable consulting firm in the quality operations systems space

Select Report

- Requirement vs. Availability Charts
 - Select report type -
 - Detail Resource Requirement Reports by Functional Area and Resource
 - Requirement vs. Availability Charts by Functional Area and Resource Type
 - Product Resource Requirement Reports by Workcenter and Resource
 - Test Activity Time Reports by Workcenter and Resource Type
 - Support Activities Reports by Period
 - Campaigning Effect Chart by Functional Area and Resource
 - Other Reports by Functional Area and Resource
 - Test Qualifications by Functional Area and Resource Type
- 416 - Required vs. Available Hours by Workcenter and Resource
- 417 - Required vs. Available Hours by Workcenter and Resource Type
- 418 - Required vs. Available Hours by period

Required vs. Available Resources by Period - Mozilla Firefox

Report Parameters
 Functional Area: CHEMISTRY Workcenter: Wet Chemistry
 Resource Type: Staff Resource: ALL

Required vs. Available Hours by Period

Required vs. Available Hours by Period

Required vs. Available Resources by Functional Area and Resource - Mozilla Firefox

Report Parameters
 Functional Area: CHEMISTRY Workcenter: Instrumental Period: 2003 Q1 2003 Q2 2003 Q3 2003 Q4
 Resource Type: ALL

Required vs. Available Resources by Functional Area and Resource

Report Parameters

Go

Functional Area: CHEMISTRY

Work Center: Wet Chemistry

Resource Type: - ALL -

Resources: HPLC/Dissolution

Product Type: Instrumental

Product: QAL_Shared

Product: Test Lab

Product: Wet Chemistry

Test Group: - ALL -

Test: - ALL -



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