Prolink offers an entire suite of software solutions to address and automate the data collection and quality analysis tasks performed throughout your organization. As depicted below, the collected data can then be shared at each level of your organization using our various software tools. The diagram and brief summary

explains how each program fits into the big picture. Each color-coded level in the diagram has a corresponding colored data sheet providing the detail and key benefits of the product described.

# Enterprise Report Scheduler™ - ERS

The Enterprise Report Scheduler provides high-level summary reporting at the factory or corporate level. Reports can be scheduled at regular intervals to compare the quality capability across departments, plants, and multiple locations.

# QC-CALC® SPC

QC-CALC SPC is our comprehensive statistical process control application designed to monitor, manage, analyze, and report the results of your inspection data right from your desktop.

## **SPC Office Buddy**<sup>™</sup>

Although QC-CALC SPC is our main QA analysis tool, the SPC Office Buddy provides a fast and easy method of moving your data directly into Minitab®, JMP®, and Excel. Integrating with external programs allows employees to leverage existing software purchases and streamlines acceptance within your organization.

# **QC-CALC® Real-Time**

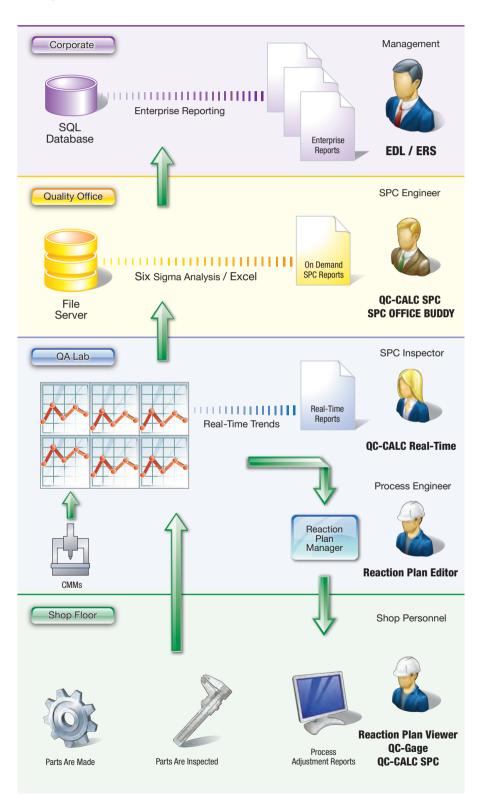
Written in 1983, QC-CALC Real-Time is at the heart of Prolink's software suite since it is the central hub of all data collection. This standalone program is required by most companies since it collects, analyzes, and reports the inspection results.

# Reaction Plan Manager<sup>™</sup> (RPM)

This ground breaking software package provides productivity tools beyond SPC. It allows you to combine measurement data with engineering knowledge to produce very specific operator instructions used for machine adjustments.

#### QC-Gage®

QC-Gage is designed to collect inspection data directly from electronic gages or operator typed values.





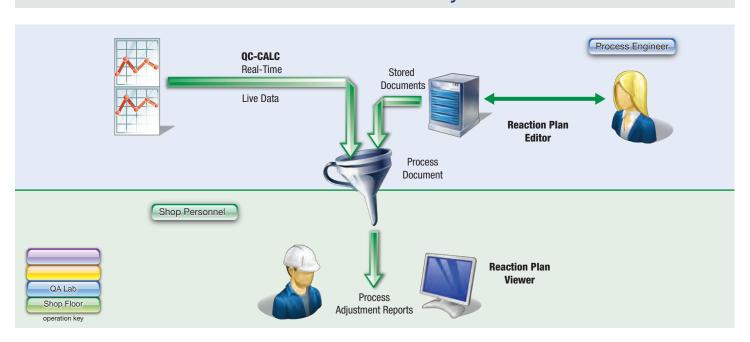
#### Introduction

The Reaction Plan Manager (RPM) provides productivity tools to reduce complex measurement information into step-by-step machine adjustments. Deciding how to react to a broken or shifted process is critical. Part size and statistical reports may indicate the process has drifted but knowing what adjustments are required is difficult. By using RPM, you combine measurement data with engineering knowledge to analyze the process in real-time and provide specific instructions to fix the process.

#### **Key Benefits**

- Clear, concise, instructional reaction plans
- Quicker part changeover time
- Reduction in the need for operator training
- Reduction of engineering hours supporting the manufacturing floor
- Better process documentation
- Overall cost savings through a reduction of scrap

# The Reaction Plan Manager is like having an engineer on the floor 24 hrs/7 days.



#### **How it Works**

The software is made up of two applications to build (Editor) and view (Viewer) Reaction Plans. A Reaction Plan is a stored document containing math algorithms to analyze measurement data, program code to manipulate data, pictures, graphs, and operator instructions to clearly explain operator actions. The document could be compared to a finely tuned Excel macro. When combined with live data, the Reaction Plan contains the specific instructions needed to fix the process.

#### **Process Engineer**

Your engineer familiar with the manufacturing process determines the calculations and instructions to make the adjustments. Using the Editor, he creates the Reaction Plan and releases it on the manufacturing floor.

#### **Shop Personnel**

Periodically QC-CALC sends measurement data along with statistical information to the Viewer. The Viewer then merges this information with the Reaction Plan written by your process engineers. The result is a unique Reaction Plan displayed on the shop floor with detailed instructions for the machine operator. The Viewer can be anywhere on your company network and, presumably, the shop floor. No paper is wasted since the operator simply scrolls through the document on a monitor.

Isn't it time to put the brains of your brightest into a computer and let the Reaction Plan Manager do the "thinking"?



# **Editor Features – What the Process Engineer Uses**

The editor has 4 major areas used to create a reaction plan:

- Reaction Plan Document
- Data window
- Command Editor window
- Built-in Functions window

Your engineer will use the Reaction Plan Editor to build a Reaction Plan containing the instructions the operator needs. Reference tags associated with command blocks are inserted throughout the plan. When the Reaction Plan is played, each tag is replaced with the results of each command block. The Command Editor Window gives the engineer tools to edit and debug command blocks. Built-In functions and wizards help build command sequences. The Data Window holds the live data and offers additional data sheets to perform calculations similar to Excel.

#### **Wizard Buttons**

Convenient wizards lead you through the steps to build typical command sequences. Buttons exist for the hole pattern analysis, dimension information, and statistics information.

#### **Command Buttons**

A button exists for every command reducing the need to memorize commands.

# **Debug Tools**

A convenient debugging tool allows you to step through your logic one command at a time.

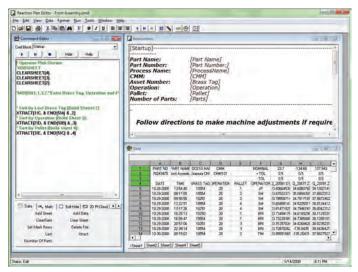
# **Dimension Information Tools**

These tools allow you to evaluate a dimension with a handful of

commands, show the correction amount, and customize the operator instructions based on dimension acceptability.

# **Configurable Software**

The Editor contains a library of powerful program tools to analyze and manipulate the data, create custom algorithms, or use canned tools. The final result is a Reaction Plan explaining the necessary adjustments with text, calculations, and plots.



# **Pattern Fitting Tools**

These comprehensive tools evaluate hole patterns using data from multiple parts. Perform "Best-Fits" to accurately pinpoint pattern adjustments. Do "what if" simulations to experiment with different pattern adjustment values.

## Viewer Features - What the Shop Floor Sees

The Viewer displays real-time analysis results in a slideshow format. The operator sees only the needed results. When a different data set is sent to the Viewer, the Reaction Plan associated with the data automatically loads and performs the calculations.

# Automatic Export from QC-CALC Real-Time Software

Automatic exporting from QC-CALC allows you to statistically monitor a process and automatically trigger a reaction plan. The plan then recommends machine adjustments based on statistical indicators from the process stream.

#### **Remote Execution**

The Viewer is portable allowing you to measure parts in the CMM room and display the Reaction Plan on another computer where the parts are machined.

#### **Automatic Document Saving**

Every processed Reaction Plan is saved in folders organized by name and date. Great for tracking machine adjustments!

#### **Operator Notes**

Your machine operators can optionally enter notes when a reaction is needed providing a running history of problems and solutions.

#### **Exporting**

Reaction Plan documents can be exported to a word processor or drawing application for easy sharing.

