

Collect Automates Balance Interface to Adobe .PDF Report

Introduction

Collect is a software program that allows users to easily connect RS232 or Ethernet output capable instruments or devices directly with Microsoft® Excel® without using a wedge. It includes a number of out-of-the-box features for simple setup and run-time automation but also includes a power instrument interface manager to handle any number of operations or tasks as part of the integration process.

Application Overview

In this application, an interface was created for a Sartorius MC5 balance using both the installed features as well as a couple of simple Collect Macro scripts written within the interface to create a more secure recording and reporting platform that prints the operators workbook to an Adobe .pdf file record of the test performed (Figure 1).

Upon Launching the Method (Figure 2), Collect opens the pre-defined Excel® template for the Method and adds the Collect floating control window (Figure 3) to the template. In this case, the template created removes all menu options and does not allow the operator to interact with the sheet at all.

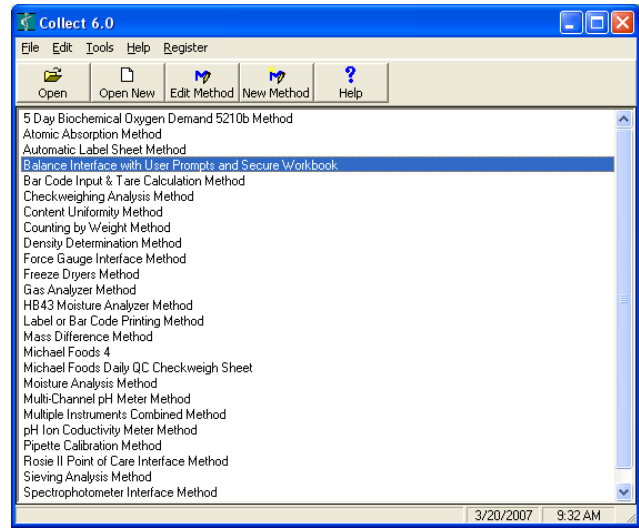


Figure 1: Collect main screen with Methods displayed.

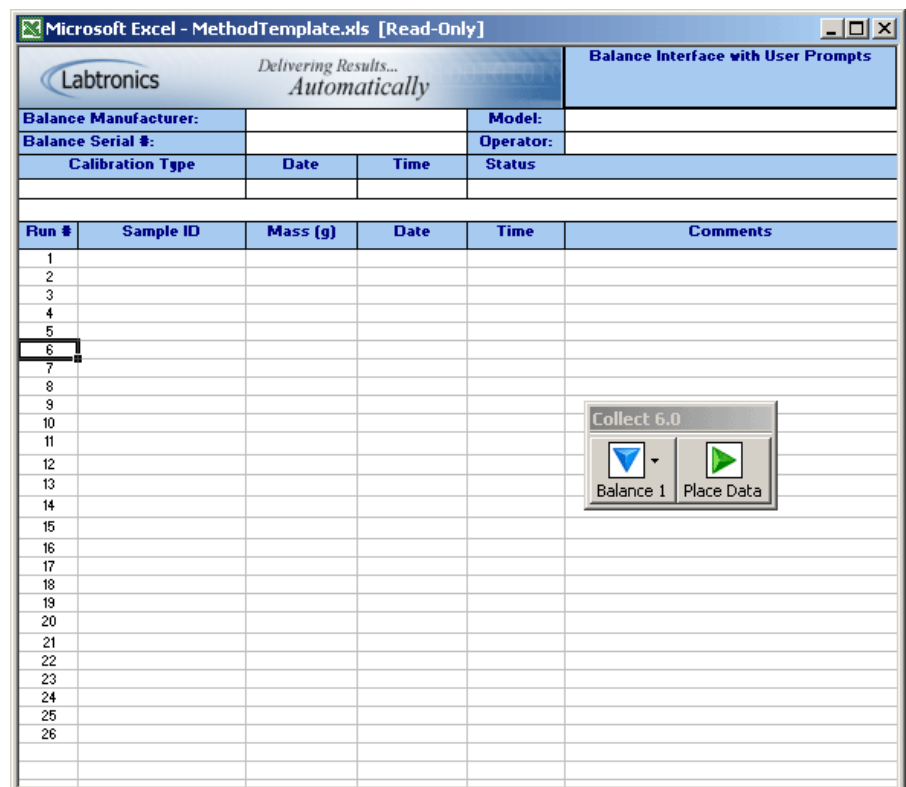


Figure 2: Start a new Method session

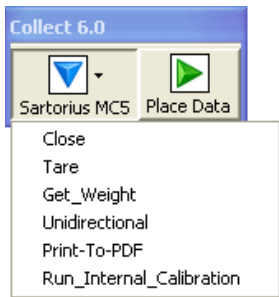


Figure 3: Collect Control Window

The Collect Control window is the only way a user can interact with this sheet through a number of pre-defined interface operations and control macros.

Five Collect operations were created for the MC5 balance interface. Four to interact with the balance and report to Excel®, the 5th, to report the template to .pdf printer:

1. 'Tare' – Sends the Tare command to the balance.
2. 'Unidirectional' – Listens to the COM port and receives incoming data streams.
3. 'Get_Weight' – Sends the 'Print' command to retrieve the weight data.
4. 'Run_Internal_Calibration' – Sends the command to run the balances internal calibration.
5. 'Print-To-PDF' – Reports the Workbook directly to a .PDF printer such as CyberPrinter or CutePDF.

When the data is received from the balance via the Collect RS232 interface, the operation extracts the required data through its parser. Before reporting the reading to the Workbook, the interface is configured to first display an operator entry form with the received results and allow for additional 'meta-data' to be added (Figure 4).

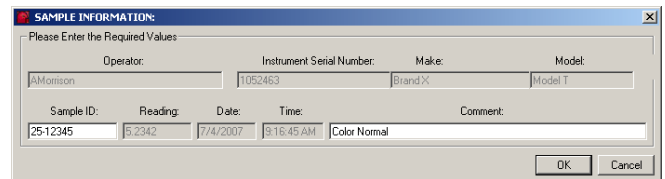


Figure 4: Configurable Entry Form

Collect automatically adds the User Name from the Windows® operating system, Balance serial #, Date and Time of the reading and displays the weight reading received in non-editable fields.

The operator is only allowed to enter or scan in (if using barcodes) the Sample ID and enter comments regarding the sample.

The Sample Information window shown here was configured with a simple Marco script within the Collect Instrument Manager and is displayed whenever the "Unidirectional" or "Get_Weight" operation commands are executed.

The window is completely configurable to add additional fields for different types of applications or change-displayed text.

Upon selecting 'OK' the information is written directly to the Excel® Workbook (Figure 5).

Collect has improved the weighing process accuracy and operator efficiency with a simple to setup and easy to use interface with Excel® that is very cost effective. The solution allowed the client to move away from a manual weight recording and reporting procedure and fell within the spirit of their industry’s regulatory guidelines.

For more information on Collect and how it may solve your application needs contact Labtronics today.

This is one of the many examples in how Collect can be used to automate serial instrument/device interfaces and solve customer specific application requirements.

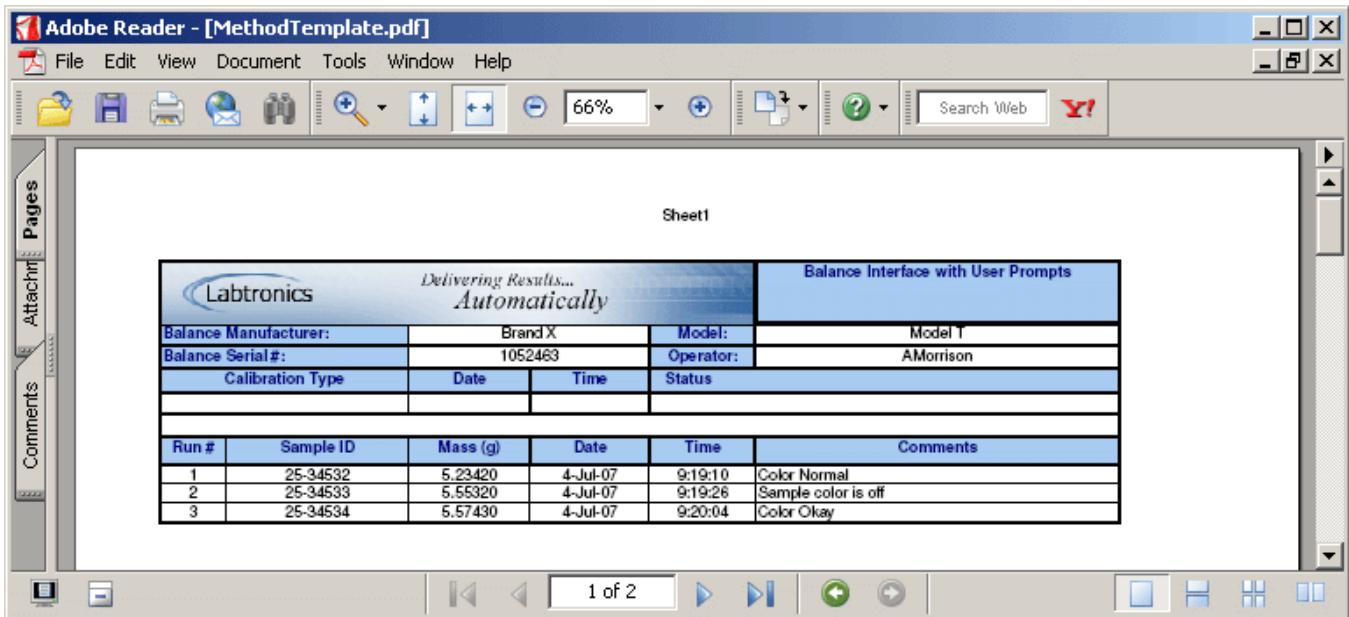


Figure 8: Excel® Workbook reported to .pdf file

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