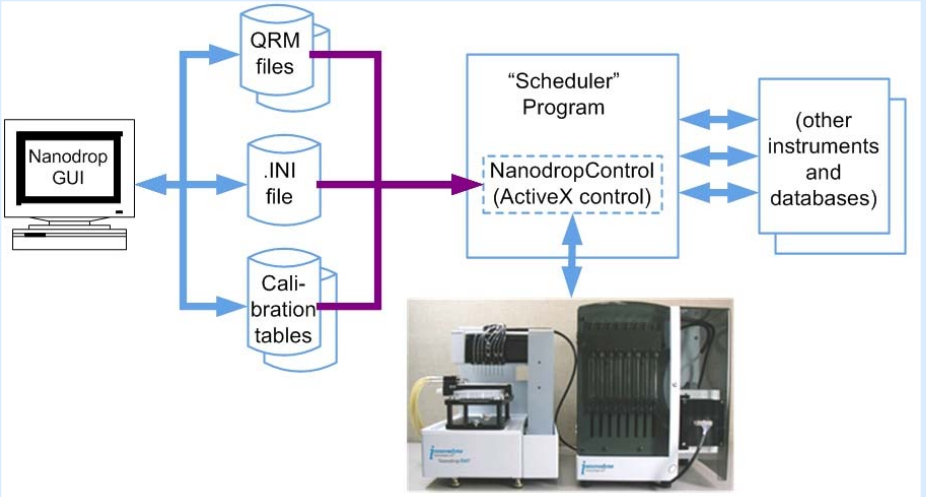
Nanodrop™ Automation Control

The Nanodrop™ instrument has a Graphical User Interface (GUI) that can be used to set up an instrument and to develop liquid handling methods for low-volume dispensing (see preceding page). These protocols are saved as Nanodrop QRM files. The Nanodrop GUI is ideal for bench-top use of the instrument.



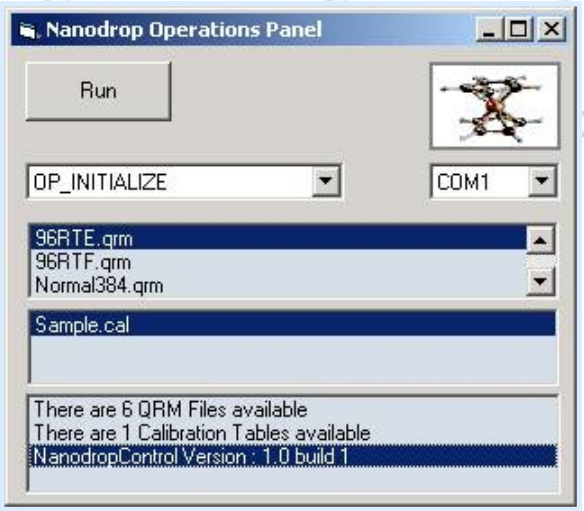
Nanodrop GUI and Nanodrop Automation Control

In order to integrate the Nanodrop™ with other instruments, plate readers and databases in the laboratory, the Nanodrop™ needs to be controlled by a higher-level automation software package. This higher-level package, called a "scheduler," schedules the activities of the various instruments. The scheduler may take various forms: it could be a Visual Basic® application written by the lab's Software Engineer or it could be National Instruments LabVIEW© application, for example.

Since it is impractical to run a windowing user-interface program from a scheduler program, **Innovadyne Technologies** provides the **Nanodrop™ Automation Control** (NanodropControl) to provide the means to control the Nanodrop™ instrument and access the GUI's other capabilities. The automation control takes the form of an ActiveX component (an OCX). Once the automation control is compiled and linked into the scheduler program, the scheduler program code has the ability to invoke Nanodrop instrument operations through calls to the automation control's methods. Under the control of the scheduler program, the automation control can open QRM files created within the Nanodrop™ GUI and run them. It can also invoke specific operations on the instrument—such as Initialize, Wash, Purge or Prime by calling the relevant methods with the relevant settings.

In the sample application shown at right, a program called OpsPanel (Nanodrop™ Operations Panel) allows selection of a QRM file from a list of available QRMs and a Calibration Table from a list of Calibration Tables. The application searches the contents of prespecified subdirectories to fill the selection lists. The user selects the desired operation from a list of operation-name constants: OP_INITIALIZE, OP_DISPENSE, OP_WASH etc., which the program invokes when the user clicks the Run button.

The range of operations that can be controlled by a scheduler program making calls to the Nanodrop™ Automation Control is very extensive—including nearly everything that can be accomplished from the Nanodrop™ GUI (with the exceptions of creating and modifying QRM's, calibration tables and plate layouts, and of performing instrument calibration and servicing).



Test Application

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