Innovadyne Nanobuilder

Device Driver Quick Reference

Original Instructions

Agilent Technologies

Notices

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Innovadyne Nanobuilder Device Driver Quick Reference

This document contains the following topics:

About this document

What this guide covers

The Innovadyne Nanobuilder is a software that automates operations in Innovadyne liquid-handling devices, such as the Nanodrop. The Nanodrop liquid handler and the Nanobuilder software can be integrated into a lab automation system that is controlled by the VWorks software. The sequences created in Nanodrop Nanobuilder are used in VWorks protocols.

This document provides a quick reference of the commands, selections, and parameters in the following:

- Innovadyne Nanodrop Nanobuilder Diagnostics
- Innovadyne Nanodrop protocol tasks

Assumptions

This document assumes that you are familiar with the VWorks software and that you know how to:

- Add a device to a device file.
- Open the device diagnostics software.
- Create and manage profiles.
- Create a protocol and add protocol tasks.

Software version

The functions described in this document are available in the following software:

- VWorks Automation Control 11.4 or later
- Innovadyne Nanobuilder 4.8 or later

Related documents

Use this document in conjunction with the following:

- *VWorks Automation Control Setup Guide*
- *VWorks Automation Control User Guide*
- Lab automation system user guide, such as the *BioCel System User Guide*
- User documentation for the Innovadyne Nanodrop liquid handler and Nanobuilder software

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www.agilent.com/chem/askb.

Innovadyne Nanodrop Nanobuilder Diagnostics

About Innovadyne Nanodrop Nanobuilder Diagnostics

You use Innovadyne Nanodrop Nanobuilder Diagnostics to:

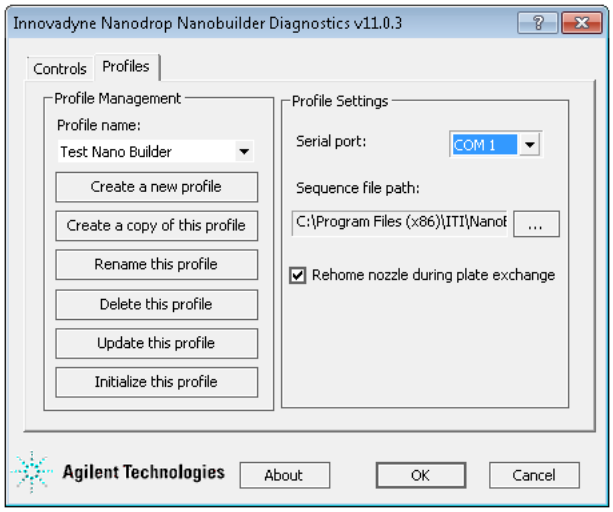
- *Create and manage profiles.* A profile allows you to set up communication between the Nanobuilder and the controlling computer.
- *Run or edit sequence files.* Using the available commands, you can run or edit the selected sequence file.

This topic provides a quick reference of the commands, selections, and parameters in the following Nanodrop Nanobuilder Diagnostics tabs:

- Profiles tab
- Controls tab

For instructions on adding the Nanodrop device to your device file and opening Nanodrop Nanobuilder Diagnostics, see the lab automation system user guide, such as the *BioCel System User Guide*.

Profiles tab



Profile Management area

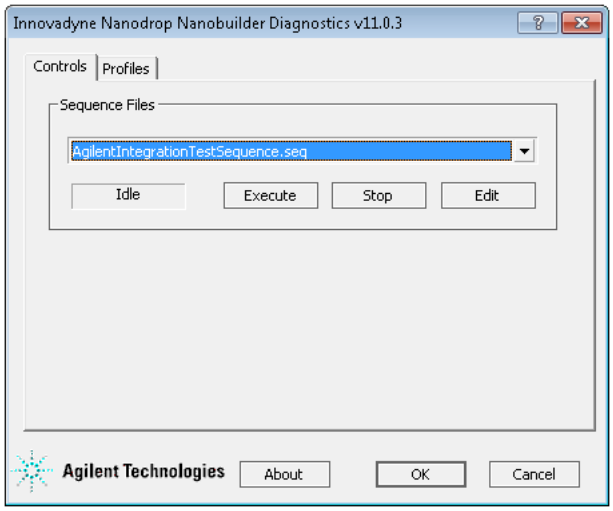
Command	Description
Profile name	Displays the selected profile. Also allows you to select from the list of available profiles.
Create a new profile	Creates a new profile.
Create a copy of this profile	Creates a duplicate copy of the selected profile.
Rename this profile	Renames the selected profile.
Delete this profile	Deletes the selected profile.

Command	Description
Update this profile	Saves changes to the selected profile.
Initialize this profile	Initiates communication with the device using the selected profile.

Profile Settings area

Setting or option	Description
Serial port	The first of the two controlling computer COM ports that is connected to the Nanodrop liquid handler. **IMPORTANT** The Nanodrop liquid handler requires two consecutive serial ports to operate. The serial port specification in the Profile Settings area should be the first of the two ports. For example, if the Nanodrop liquid handler is connected to COM ports 1 and 2, then you should select COM1 in the Profile Settings area.
Sequence file path	The folder in which the Nanobuilder saves all sequence files.
Rehome nozzle during plate exchange	The option to move the dispense head to the home position while the microplates are being exchanged.

Controls tab



Sequence Files area

Selection or command	Description
Sequence files list	The list of sequence files that are stored in the folder specified in the Profiles tab. Select the sequence file that you want to run or edit. For instructions on how to create and manage sequence files, see the Nanobuilder user documentation.
Status box	The status of the Nanodrop liquid handler. For example, if the device is not performing any task, the status Idle displays in the box.
Execute	Runs the selected sequence file.
Stop	Stops the sequence that is currently running on the Nanodrop liquid handler.
Edit	Opens the sequence file in the Nanobuilder so that you can edit it.

Innovadyne Nanodrop protocol tasks

About the tasks

You can add the following protocol tasks to run sequences on the Nanodrop liquid handler:

- SubProcess
- Execute Sequence

The Nanodrop Nanobuilder SubProcess and Execute Sequence tasks are associated with the Nanodrop liquid handlers only. This topic describes the two device-specific tasks.

Requirements

Make sure the desired sequence files are stored in the folder specified in the Nanobuilder Nanodrop Diagnostics Profiles tab.

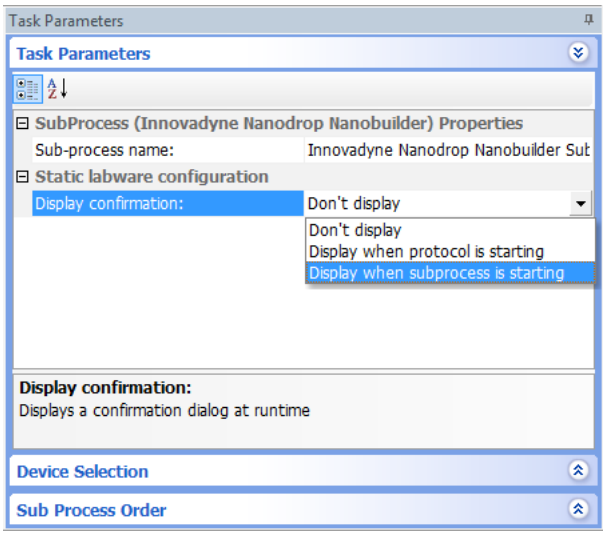
SubProcess

Description

The SubProcess (

) task indicates the start of a protocol subroutine that employs the Nanodrop liquid handler. Within the subprocess, you can add the Execute Sequence task that is unique to the device. You can expand or collapse the subprocess to show or hide the subprocess tasks.

Task parameters



Parameter	Description
Sub-process name	The name of the Nanodrop subprocess. Select from the list of available subprocesses currently in the protocol.
Display confirmation	The option to display a message at the beginning of the protocol run or the subprocess to remind you to verify that the physical locations of the labware match what you specified in the software.

Device selection

You must select the device for the subprocess task.

To select the device for the subprocess task:

1. Click **Device Selection**.
2. In the **Device Selection** pane, double-click the desired device in the **Devices available to perform** task area to move it to the **Devices involved in task** area.

SubProcess Order

If more than one subprocess uses the same configured labware, and the subprocesses are in different protocol processes, you can specify the sequence in which the subprocesses will be performed.

To specify the sequence in which the subprocesses will be performed on the same configured labware:

1. In the protocol process, select the subprocess that contains the task that uses the configured labware.
2. In the **Task Parameters** area, click **Sub Process Order**.
3. In the **Sub Process Order** pane, double-click the subprocess names to rearrange the order.

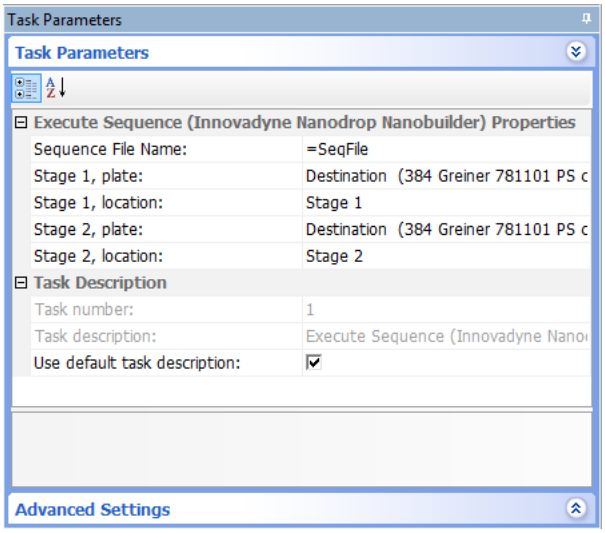
Execute Sequence

Description

The Execute Sequence (

) task runs the selected sequence on the Nanodrop liquid handler.

Task parameters



Parameter	Description
Sequence file name	The sequence file that the task will run. Select the desired sequence file from the list.
Stage 1, plate	The type of labware that will be placed at the Nanodrop stage.
Stage 1, location	The name of the Nanodrop stage. Select from the list of location names.
Stage 2, plate	The type of labware that will be placed at the second Nanodrop stage, if applicable.
Stage 2, location	The name of the second Nanodrop stage, if applicable. Select from the list of location names.

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