

## AssayMAP Protein Sample Prep Workbench

# Reformatting v2.0 Quick Start Guide

This guide is intended for users who have been trained in the proper use of the AssayMAP Bravo Platform and understand the safety guidelines in the [Bravo Platform Safety and Installation Guide](#). The procedures in this guide require the Protein Sample Prep Workbench and VWorks Automation Control software. See the user guide to verify the required software versions.

### Step 1. Design the Reformatting method

#### To open the Method Setup Tool:

In the **Utility Library**, locate the **Reformatting v2.0** banner, and then click **Method Setup Tool**. Follow the instructions on the screen to design and save a method.

#### Reformatting v2.0



Transfer solutions from any location in one microplate into any location in another microplate. Using AssayMAP Bravo and Agilent 250 µL pipette tips.

Utility

Method Setup Tool

Instructions

For detailed guidelines, see the [Reformatting Utility v2.0 User Guide](#) in the Literature Library of the Protein Sample Prep Workbench.

### Step 2. Prepare the source and destination plates

Ensure that the type of labware and volumes per well exactly match what is specified in the method that you created using the Reformatting Method Setup Tool.

#### IMPORTANT

To minimize evaporation, fill the labware immediately before run time or keep them covered until you run the protocol.

### Step 3. Prepare the system

#### To prepare the system:

- 1 Check the levels of the wash station source and waste carboys, and fill or empty as required.
- 2 If you have not already done so, turn on the AssayMAP Bravo Platform and accessories, and start the Protein Sample Prep Workbench.
- 3 Open the **Utility Library**, and then open the **System Startup/Shutdown** utility



- 4 Click **Run Startup** to prepare the system for the run.

#### WARNING


The Bravo head and tie bar will move during the Bravo Startup protocol. To prevent injury, keep clear of the device while it is in motion.

## Step 4. Run the utility

- During the Startup protocol, verify that all the wash station chimneys have liquid flowing through them. If liquid is not flowing through the chimneys, see the [96 Channel Wash Station Maintenance Guide](#) for troubleshooting guidelines.

## Step 4. Run the utility

### To run the Reformatting utility:

- Open the **Reformatting** utility.
- Under **Select and Load a Reformatting Method**, click  and select the method. The default method storage location is C:/VWorks Workspace/Methods/AM Reformatting Utility v2.0.
- Click **Display Bravo Layout** to display the Method Loaded and the Deck Layout information.

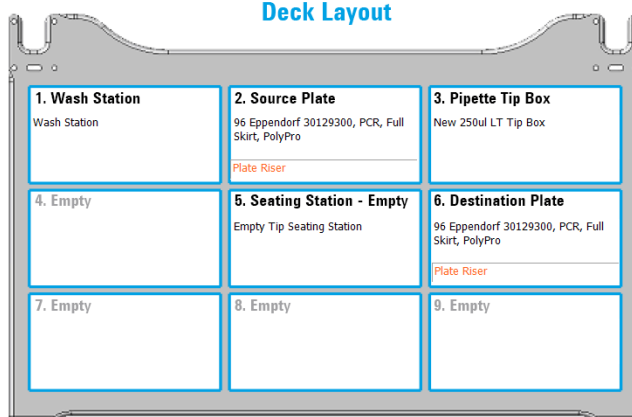
### Select and Load a Reformatting Method

**Browse for a Method:**  
C:/VWorks Workspace/Methods/AM Reformatting Utility v1.0/Reformatting\_Method\_File\_2019.09 ...

Display Bravo Layout      Clear Bravo Layout

**Method Loaded:**  
Reformatting\_Method\_File\_2019.09.10\_10.59.21.csv

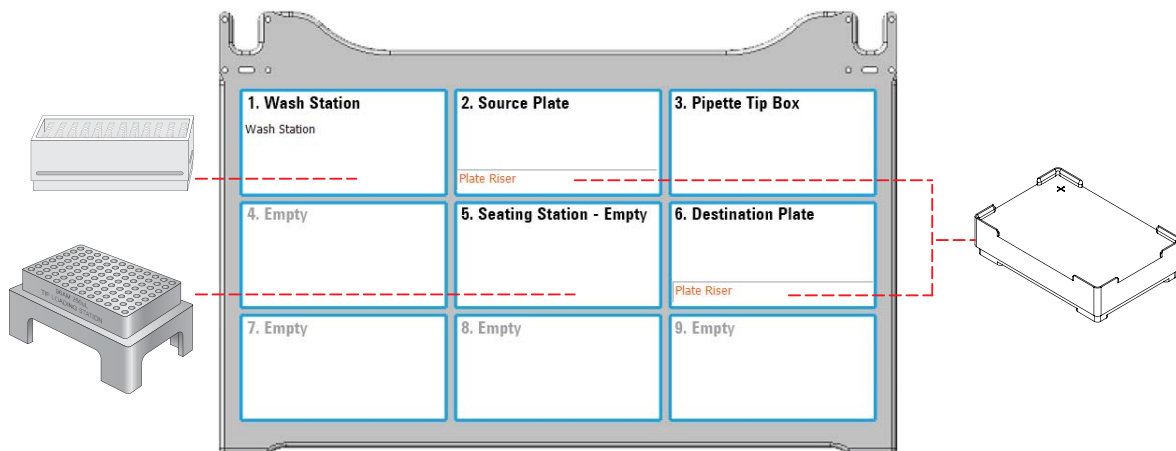
### Deck Layout



## WARNING

The probes of the Bravo 96AM Head are sharp and can scratch you if they brush across your hand. A probe scratch can expose you to any contaminants remaining on the probes. Be careful to avoid touching the probes.

- Ensure that the following items are securely in place at their respective AssayMAP Bravo deck locations:
  - Bravo Plate Riser at deck locations 2 and 6.
  - The empty 96AM Cartridge & Tip Seating Station at deck location 5.



**CAUTION**

To prevent a potential collision, ensure that no thermal plate insert is on the Peltier Thermal Station installed at deck location 4.

- 5 Place a tip box full of fresh 250-µL pipette tips at deck location 3, place the source plate on the plate riser at deck location 2, and place the destination plate on the plate riser at deck location 6.

**CAUTION**

Improperly seated labware can cause a hardware collision, resulting in equipment damage. Ensure that all labware are properly seated within the alignment features of their respective platepads.

- 6 Ensure that the labware on the deck exactly matches the Deck Layout in the form.

**CAUTION**

Incorrect labware selections can cause a hardware collision, resulting in equipment damage. Ensure that the type of labware you use for the source and destination plates match the labware specified in the method you are using.

- 7 Click **Run Protocol** to start the protocol.


### Step 5. Clean up after each run

*To clean up after the run:*

- 1 Remove used labware from the deck.
- 2 Discard the used pipette tips from the tip box at deck location 3.
- 3 Transfer the unused pipette tips from the 96AM Cartridge & Tip Seating Station at deck location 5 to unused locations in the tip box.
- 4 Remove the Bravo Plate Risers from deck locations 2 and 6.
- 5 Discard any leftover reagents appropriately.

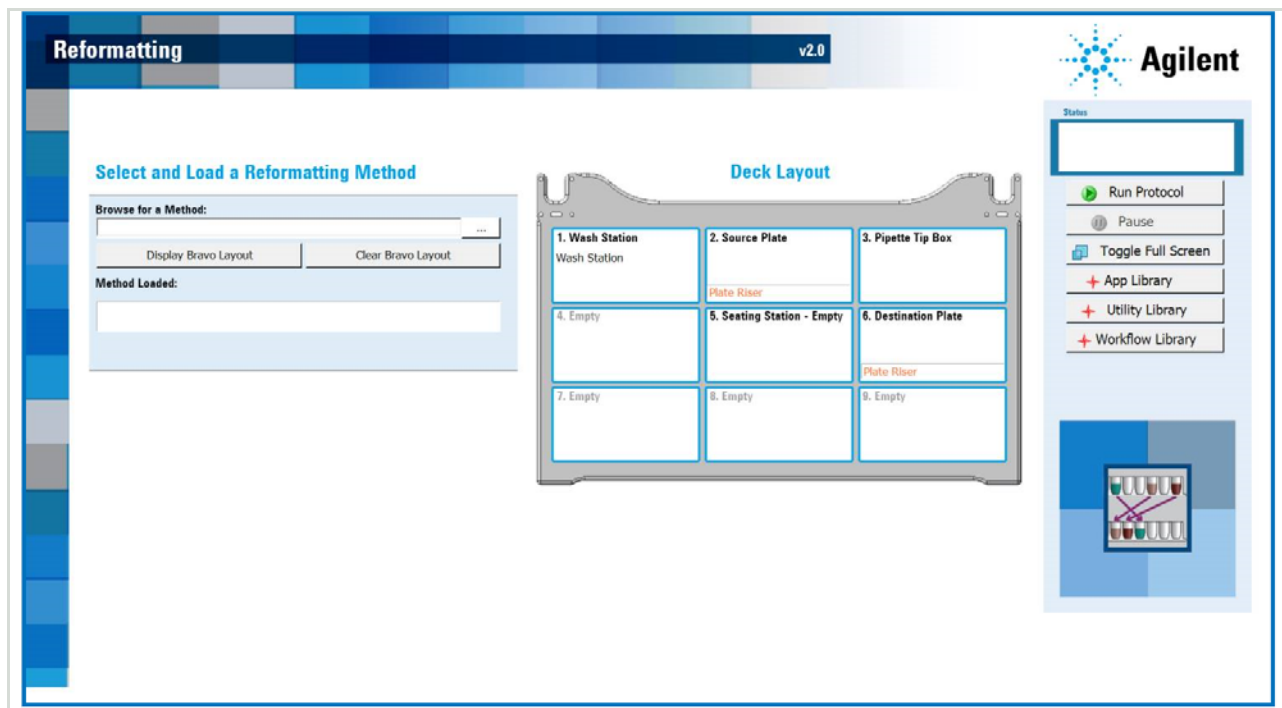
### Step 6. Shut down at end of day

*To shut down at the end of the day:*

- 1 Open the **System Startup/Shutdown** utility .
- 2 Remove everything from the deck except the 96AM Wash Station (deck location 1).
- 3 Place the 96AM Cartridge & Tip Seating Station at deck location 2, and then click **Run Shutdown**.
- 4 After the Shutdown protocol has completed, turn off the power at the AssayMAP Bravo Platform and the accessories.
- 5 Close the Protein Sample Prep Workbench software.

### Utility overview

The following figure shows the interface for the Reformatting utility. The following table summarizes the basic movements of the AssayMAP Bravo Platform during the Reformatting protocol.



**Table** Automation movements during the protocol

Protocol process	Process name	Process description
1	Syringe Wash	Performs 1 external syringe wash at the wash station (deck location 1).
2	Syringe Drying	Performs 4 syringe aspirate-and-dispense cycles above the wash station (deck location 1) to cycle air in and out of the syringes. The syringes move over the chimneys after each cycle to remove any droplets that were pushed out of the syringes during the cycle.
3	Initial Tip Transfer	Transfers the 250- $\mu$ L pipette tips from the tip box (deck location 3) to the 96AM Cartridge & Tip Seating Station (deck location 5).
4	Single Tip Pickup	Picks up the next available individual pipette tip from the 96AM Cartridge & Tip Seating Station (deck location 5) using probe A12 of the Bravo 96AM Head.
5	Source Plate Prep for Transfer	Moves to the designated well in the source plate (deck location 2). Optionally, the following steps can occur: <ul style="list-style-type: none"> <li>• If a blowout is specified, aspirates an air gap.</li> <li>• If specified, prewets the pipette tips.</li> <li>• If specified, performs the set number of mix cycles to mix the well contents of the source plate.</li> </ul>

Protocol process	Process name	Process description
6	Transfer from Source to Destination Plate	<p>Aspirates the specified volume from the source plate (deck location 2) well into the pipette tip, and then dispenses the fluid into the specified well in the destination plate (deck location 5).</p> <p>Optionally, the following steps can occur:</p> <ul style="list-style-type: none"> <li>• If specified, mixes the contents of the well in the destination plate for the specified number of mix cycles.</li> <li>• If specified, performs a blowout, followed by a tip touch on the east and west sides of the well.</li> </ul>
7	Single Tip Eject	Ejects the used pipette tip into the tip box (deck location 3).
8	Additional Transfers	Repeats processes 3 through 6 for every designated well in the source plate (deck location 2).
9	Park Head	Moves to the parked position above the wash station at deck location 1.

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