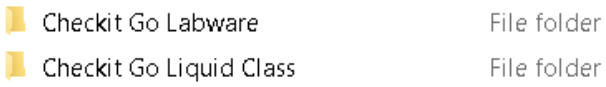
Overview

The Checkit Go from Next Advance is a quick and easy-to-use disposable cartridge used to check the accuracy of handheld pipettes and automated liquid handlers. Customers may use this tool for periodic checks of their Hamilton liquid handlers. Labware definitions and a liquid class for the Checkit Go were developed and verified internally at Hamilton. These definitions can be used on the Hamilton STARline, VANTAGE, and NIMBUS platforms that run VENUS software.

See below for instructions on how to import the liquid class and add the labware definition for use in the Hamilton VENUS software.

Download Materials

Download the “Checkit Go Hamilton Labware and Liquid Classes.zip” file and extract the contents. The zip file contains two folders that contain the labware definitions and liquid class.

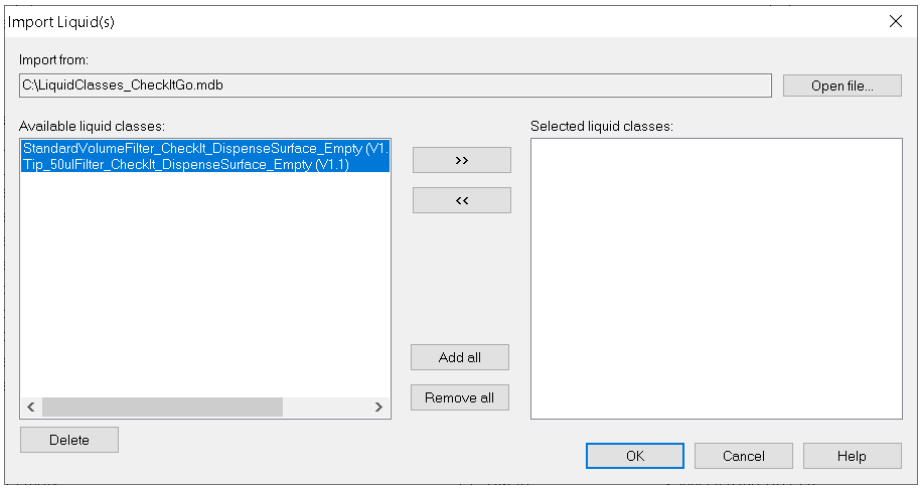


Copy the “Checkit Go Labware” folder and its contents to the C:\Program Files (x86)\HAMILTON\LabWare directory.

How to import the Liquid Class

1. **Open the Hamilton CO-RE Liquid Editor found on the desktop.**

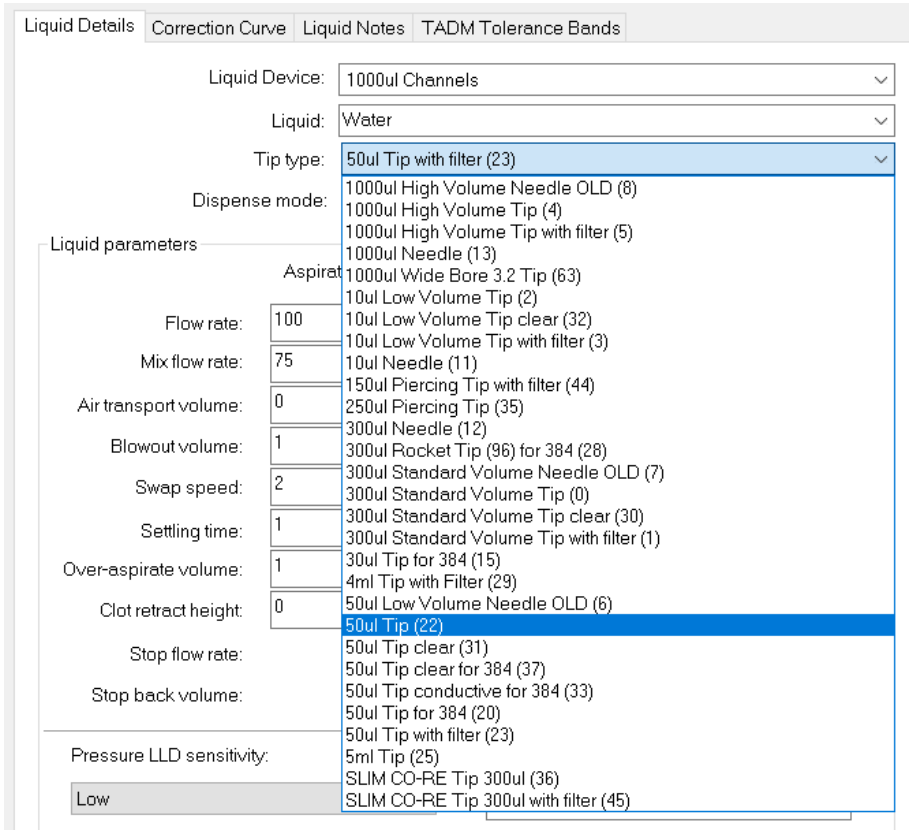
2. **From the File menu, select Import Liquid Classes**
3. **From the Import Liquid(s) window, select Open File and browse to and select the “LiquidClasses_CheckItGo.mdb” file and select Open.**



4. **Select Add all and then select OK.**

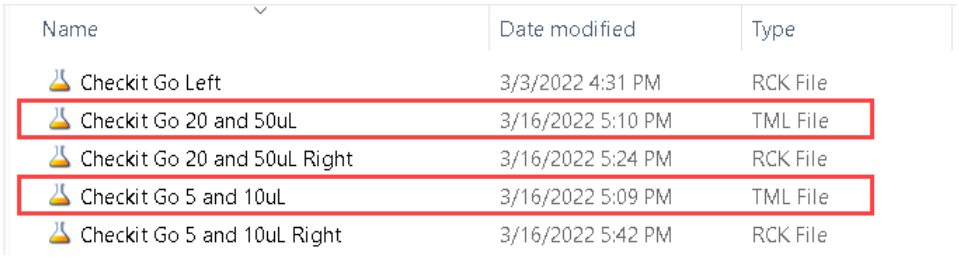
5. **The liquid classes will now be available as an option in the Aspirate commands in the VENUS Method Editor.**

6. **Note: the liquid classes were developed for a filtered tip type. If you are using unfiltered tips, the tip type can be changed via the Liquid Editor. Open the Hamilton CO-RE Liquid Editor. Right click on the liquid class you want to modify and select Create. Give the new liquid class a name. Then double-click the newly created liquid class and from the Tip type drop down, select the unfiltered option. Select Ok.**

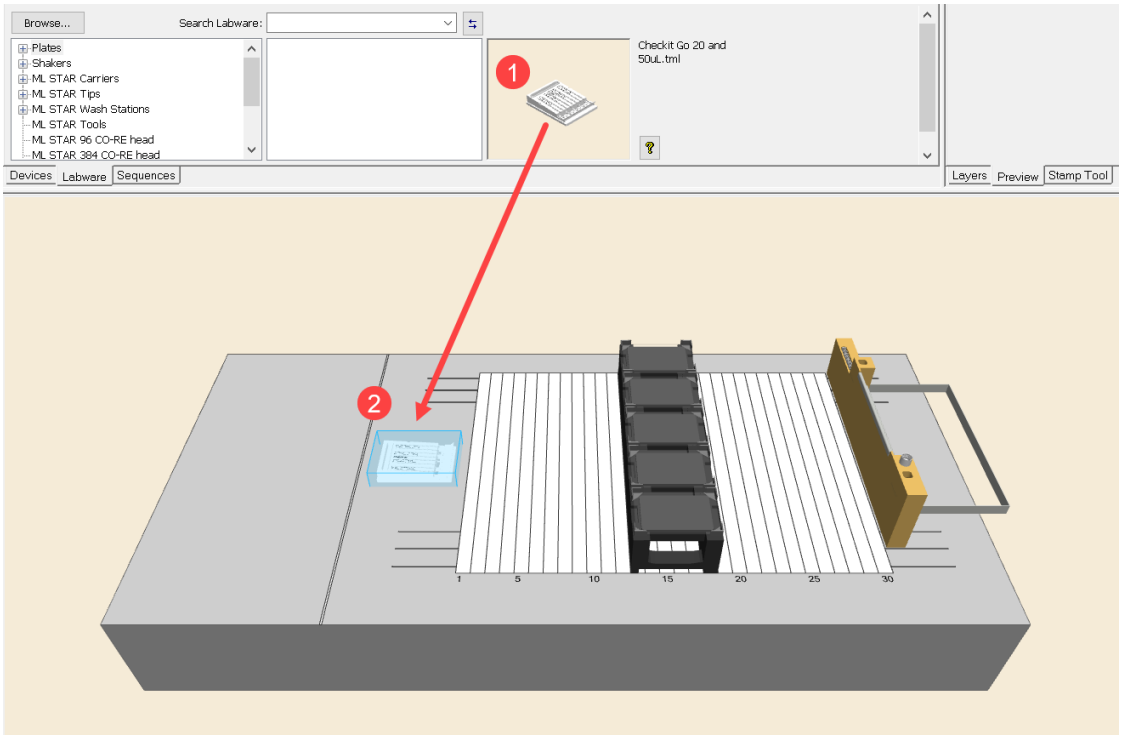


How add the labware to the System Deck

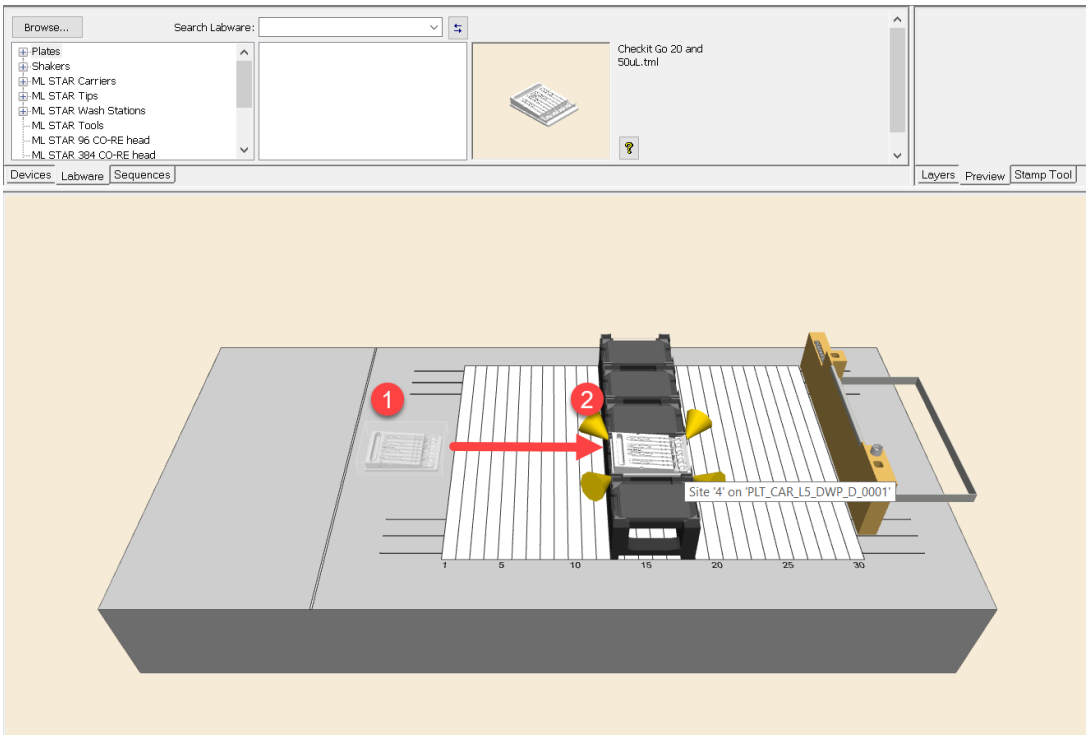
1. **Open the Hamilton Method Editor and the method with the layout that you want to add the Checkit Go labware to.**
2. **In the System Deck Editor view, select Browse and navigate to the Checkit Go folder containing the labware definitions. There are multiple files located in this folder. Select the *.tml file for the cartridge type you are using and select Open. There are two options – one for low volume (5 and 10µL) and one for higher volumes (20 and 50µL). See below:**



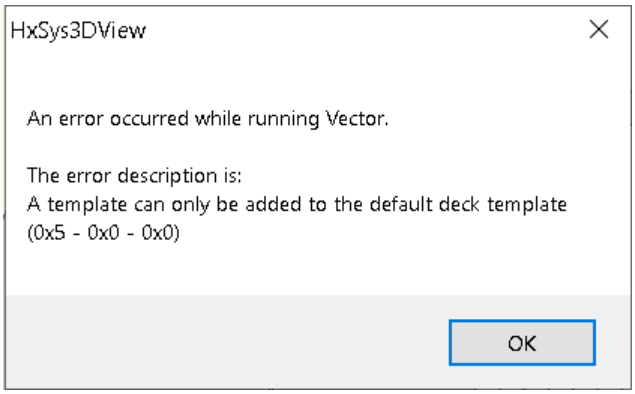
3. **Drag and drop the labware onto the system deck as shown below:**



4. **Drag and drop the labware from the system deck to the desired plate site as shown below:**

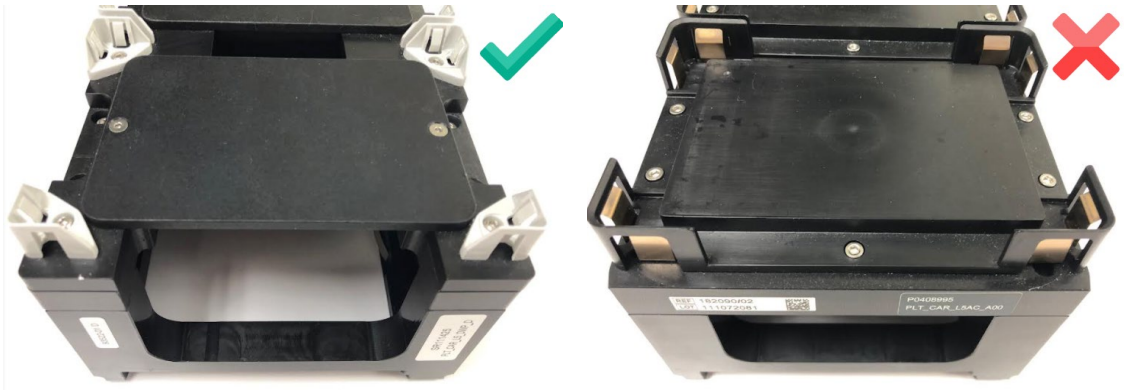


5. **Note, it is important to not add the *.tml file directly from the selection menu to a plate site! Doing so will generate an error shown below and may cause the software to freeze which would require a restart. Instead, follow the instructions above to add the labware to the system deck first and then move it to a plate site.**



Additional Information

It is recommended to use the CheckIt Go cartridge on a “gray tabbed” plate site (shown below on the left) as opposed to the older, spring tabbed plate site carriers. While the cartridge fits onto a spring tabbed plate site, it does not sit level. Adjustments to the labware definition may be required to use the cartridge on a spring tabbed plate site.



In regards to recommended pipetting parameters, for the internal testing, the following dispense heights and settings were used for each of the volumes tested:

Transfer Volume (in µL)	Dispense Height (in mm)	Liquid Following
2 to 10	0.5	Disabled
20	0.8	Disabled
50	1.0	Disabled

Testing was limited to two tip sizes and the provided Checkit Go red dye solutions. Further adjustments and optimization may be needed for depending upon your system setup and laboratory conditions.

For more guidance on how to set up a method or system deck to facilitate testing with the Checkit Go on Hamilton liquid handlers, please refer to the VENUS Programmer’s Manual.