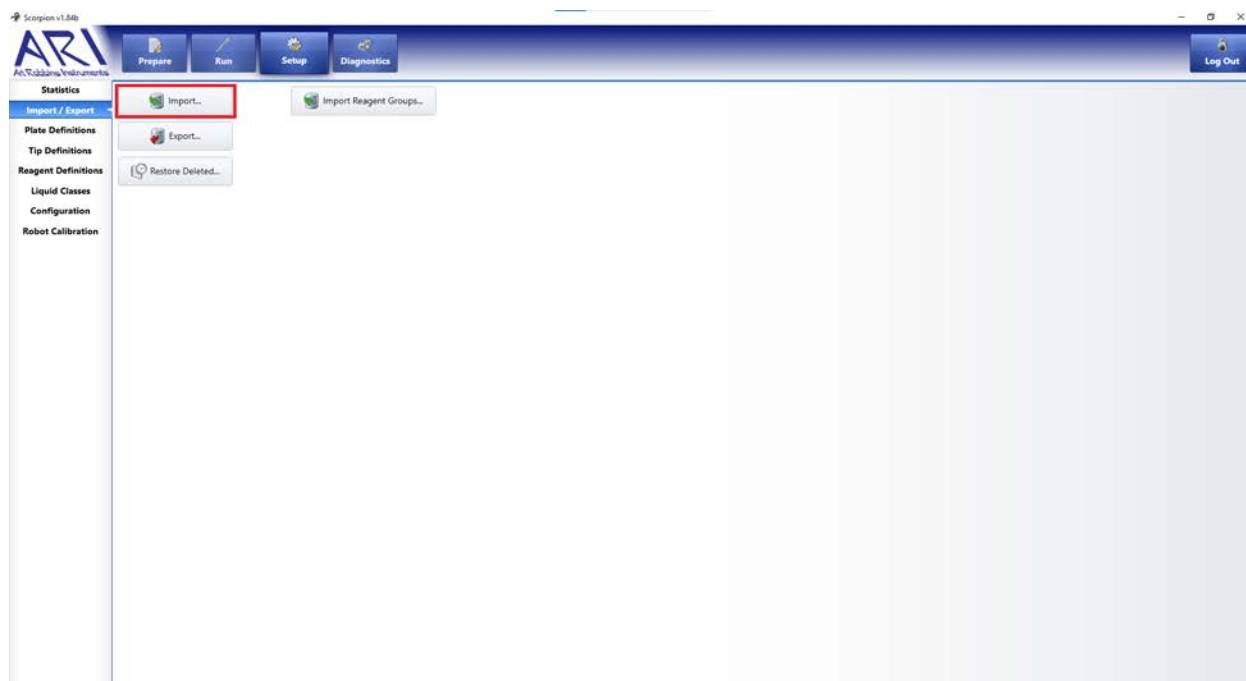


## Using Checkit Go with Scorpion Software

- 1) Download the “Art Robbins Instruments Checkit Go Database Files.zip” folder from the [Next Advance website](#) and extract the files. You can also acquire the zip folder by reaching out to Art Robbins at [info@artrobbins.com](mailto:info@artrobbins.com) or calling (408) 734-8400 for assistance.
- 2) Open your Scorpion software and press the Log In button on the top right of the home screen. Enter the password “ScorpionARI”.
- 3) Navigate to the Setup tab from the menu at the top of the home page and choose Import/Export from the sidebar options. Press the Import button and select the Checkit Go plate definitions (labeled “Checkit\_Go\_Plate\_Definitions.sdf”) from your file explorer. When you now add a new plate to your workspace in the Prepare tab, the 5µL 10 µL, 20 µL, and 50 µL Checkit Go plates should appear at the bottom of the list of plates.

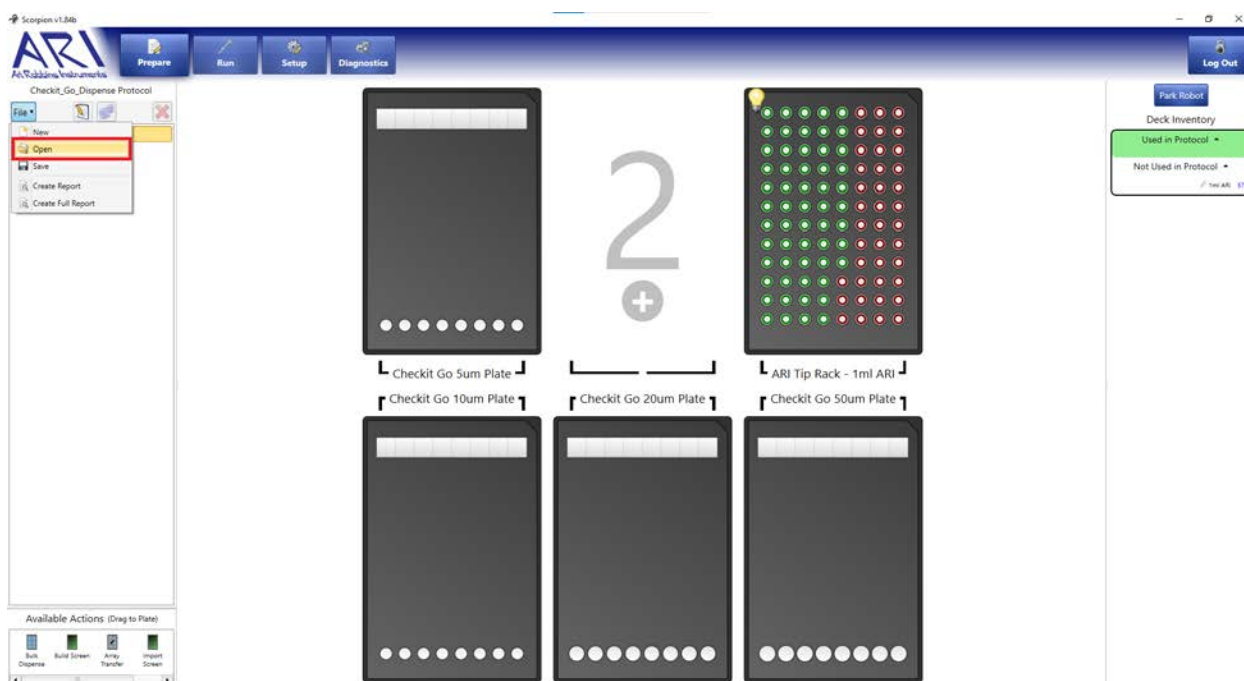


- 4) Import the Checkit Go red dye into your Scorpion software by navigating to Reagent Definitions from the sidebar of the Setup tab. Press the Import button at the top right-hand side of the window, and select "Checkit\_Go\_Dye\_Reagents.csv" from your file explorer. The 5/10µL and 20/50µL dyes should now be added to your list of reagents.

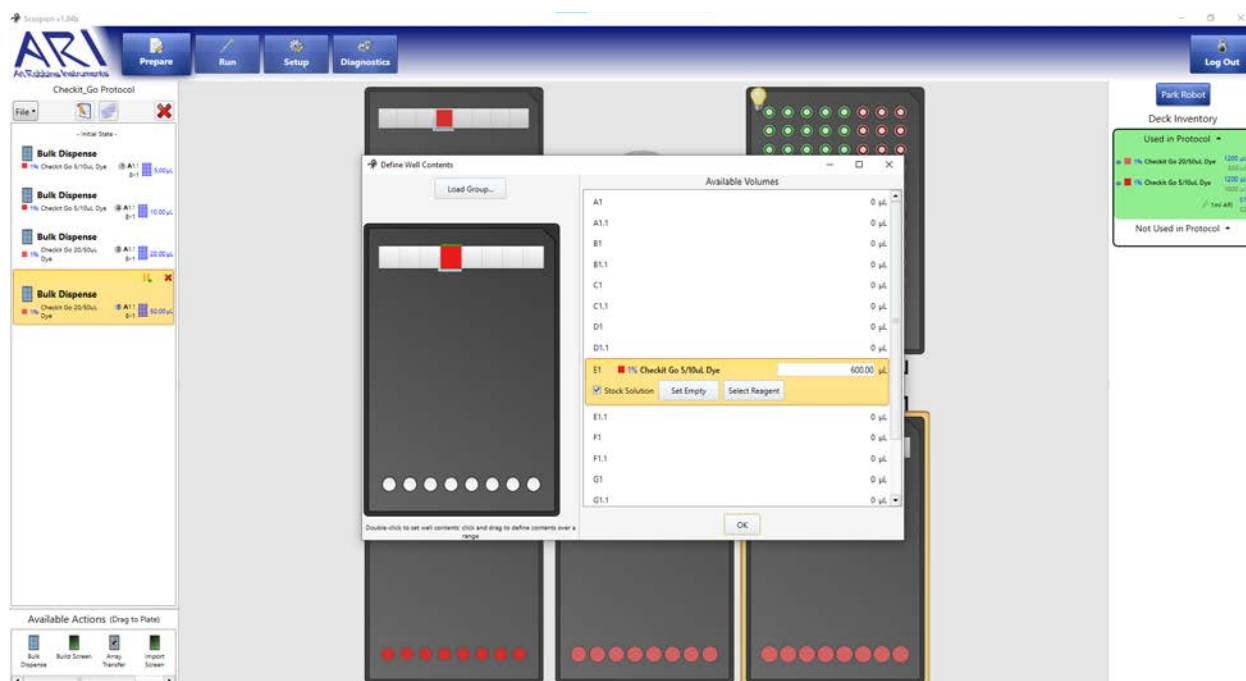
The screenshot shows the Scorpion v1.5.4b software interface. The 'Setup' tab is active, and the 'Reagent Definitions' section is selected in the sidebar. The main window displays a table of reagents with columns: Reagent, Reagent ID, Liquid Class, Concentration, Conc. Type, Buffer, pH, Catalog #, CAS #, Manufacturer, Lot #, pKa, Density, Conn. Screen, Sample, Hide Conc., and Notes. The 'Import' button is highlighted in the top right corner of the window.

Reagent	Reagent ID	Liquid Class	Concentration	Conc. Type	Buffer	pH	Catalog #	CAS #	Manufacturer	Lot #	pKa	Density	Conn. Screen	Sample	Hide Conc.	Notes	
1M 1M Sodium Nitrate	1	M	100	%	0	0	231191C99	67-63-0	Pharmco-AAPER			0.785				Reagent on HPLC grade is 99% pure BP=100 Viscosity = 0.640 at 25C Dielectric = 20.18 at 20C	
100% 2-Propanol	2	M	100	%	0	0											
50% 50% PEG 3350	3	M	50	%	0	0						1					
1M Ammonium Acetate	4	M	1	M	0	0		631-61-8	Hampton Research			1.012				Salt 1	
5M Ammonium Chloride	5	M	5	M	0	0		12125-02-9	Hampton Research			1.067					Salt 2
2.5M Ammonium Citrate Dibasic	6	M	2.5	M	0	0		3072-65-5	Hampton Research			1.312					Salt 3
10M Ammonium Fluoride	7	M	10	M	0	0		12125-01-8	Hampton Research			1.097					Salt 4
2M Ammonium Formate	8	M	2	M	0	0	78374-100M-8	540-69-2	Sigma Life Sciences			1				Stock of 10 M solution diluted to 2M	
10M Ammonium Formate	9	M	10	M	0	0		540-69-2	Hampton Research			1.123					Salt 5
10M Ammonium Nitrate	10	M	10	M	0	0		6484-52-2	Hampton Research			1.267					Salt 6
3.5M Ammonium Phosphate Dibasic	11	M	3.5	M	0	0		7783-28-0	Hampton Research			1.226					Salt 7
2.5M Ammonium Phosphate Monobasic	12	M	2.5	M	0	0		7722-76-1	Hampton Research			1.14					Salt 8
2M Ammonium Phosphate Monobasic	13	M	2	M	0	0		7722-76-1	Hampton Research			1.14					Salt 9
3.5M Ammonium Sulfate	14	M	3.5	M	0	0		7783-20-2	Hampton Research			1.214					Salt 10
2M Ammonium Tartrate Dibasic	15	M	2	M	0	0		3164-29-2	Hampton Research			1.15					Salt 11
100% AmSO4A1	16	M	100	%	0	0					1					0.2 M Ammonium sulfate	
100% AmSO4A10	17	M	100	%	0	0					1					0.2 M Ammonium nitrate, 2.2 M Ammonium sulfate	
100% AmSO4A11	18	M	100	%	0	0					1					0.2 M di-Ammonium tartrate, 2.2 M Ammonium sulfate	
100% AmSO4A12	19	M	100	%	0	0					1					0.2 M Calcium chloride, 2.2 M Ammonium sulfate	
100% AmSO4A2	20	M	100	%	0	0					1					0.2 M Ammonium acetate, 2.2 M Ammonium sulfate	
100% AmSO4A3	21	M	100	%	0	0					1					0.2 M Ammonium chloride, 2.2 M Ammonium sulfate	
100% AmSO4A4	22	M	100	%	0	0					1					0.2 M Ammonium phosphate, 2.2 M Ammonium sulfate	
100% AmSO4A5	23	M	100	%	0	0					1					0.2 M Ammonium fluoride, 2.2 M Ammonium sulfate	
100% AmSO4A6	24	M	100	%	0	0					1					0.2 M Ammonium formate, 2.2 M Ammonium sulfate	
100% AmSO4A7	25	M	100	%	0	0					1					0.18 M tri-Ammonium citrate, 2.2 M Ammonium sulfate	
100% AmSO4A8	26	M	100	%	0	0					1					0.2 M di-Ammonium phosphate, 2.2 M Ammonium sulfate	
100% AmSO4A9	27	M	100	%	0	0					1					0.2 M Ammonium iodide, 2.2 M Ammonium sulfate	
100% AmSO4B1	28	M	100	%	0	0					1					0.2 M Calcium sulfate, 2.2 M Ammonium sulfate	

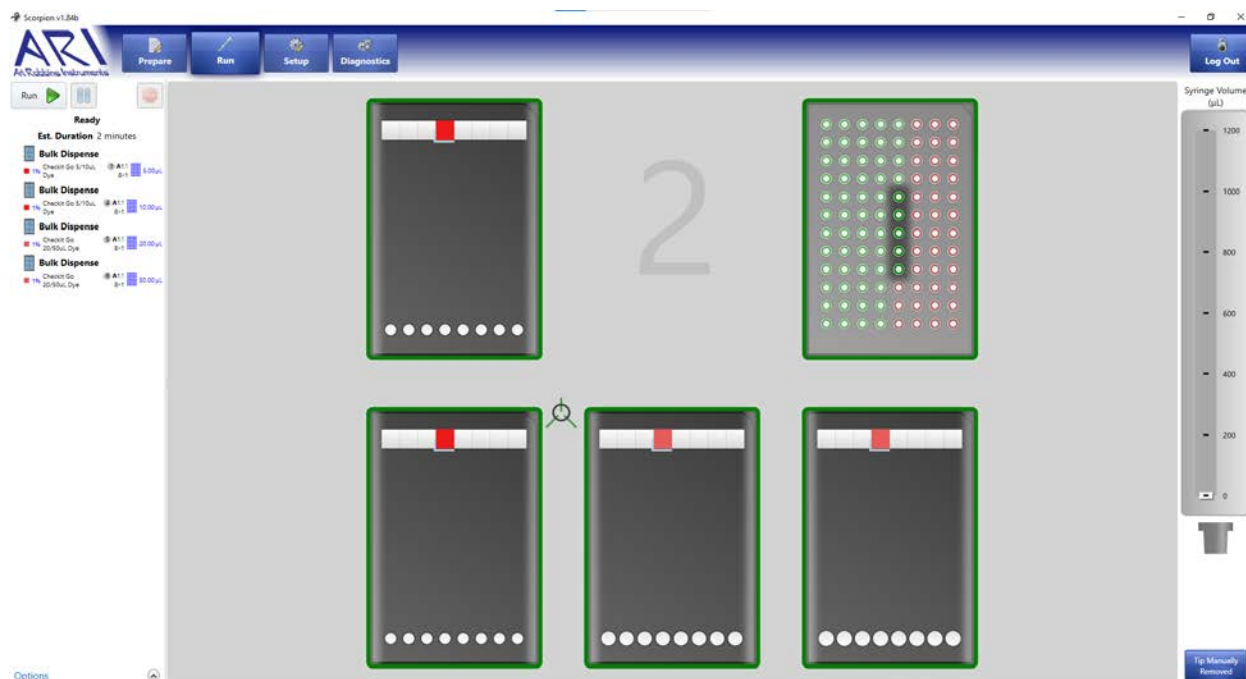
- 5) Next, set up the Checkit Go plates and the dispensing protocol in the Prepare tab. You can either create the protocol yourself or open the premade protocol labeled “Checkit\_Go.protocol.sdf” from the database files you received from ARI. If you use the premade protocol, you must arrange the Checkit Go plates in the following order: 5  $\mu$ L plate at Deck 1, 10  $\mu$ L plate at Deck 4, 20  $\mu$ L plate at Desk 5, and 50  $\mu$ L plate at Deck 6 (see image below). If you are not using all four plates, you can delete the dispensing steps irrelevant to your setup. If you are not using 1mL tips, edit the tip type in the dispensing steps.



- 6) Double-click on the Checkit Go plates to add the stock solution to the reservoirs of each plate. The Scorpion software considers the reservoir to be made up of 8 distinct rectangular wells. Click on one of the 8 rectangular elements in a reservoir, check Stock Solution, and select the appropriate Checkit Go Dye from the list of reagents. Set the volume to 600 $\mu$ L. Repeat this process by double-clicking on a new Checkit Go plate, selecting a part of the reservoir, and adding 600 $\mu$ L of the appropriate Checkit Go Dye stock solution.



- 7) Navigate to the Run tab in the Scorpion software. Set up the physical Checkit Go trays in your Scorpion robot's decks and add the red testing dye to the plates' reservoirs. Before running the protocol, ensure the Scorpion door is closed, and the robot arm is roughly located in the center of the enclosure. Once ready, press the Run button.



- 8) Visually inspect the Checkit Go plates to confirm that the Scorpion protocol has operated as intended. When ready, flip up the tabs containing the wells of dispensed red dye by 90 degrees. The red dye should flow through the capillary tubes, and you will now be able to assess the accuracy of the Scorpion's dispensing capabilities.

