|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **IH-500 Start Up and Shut Down** | | | | | |
| **Purpose** | This procedure provides instructions to ensure all users of the IH-500 shutdown and restart the instrument properly. | | | | |
| **Policy Statements** | * Microsoft recommends shutting down computers once a week for 5 minutes. This shutdown can be performed while doing other maintenance procedures. * Contact Bio-Rad Technical Support, if your instrument will be shut down long-term | | | | |
| **Related Documents** | * IH-500 User Manual * IH-Com User Manual | | | | |
| **Procedure** |  | | | | |
|  | **Step** | Action | | | |
| Starting the  IH-Com | 1 | Turn on the IH-Com computer. Turn on the workstation PC if using one. The IH-Com Communicator will automatically start.  .  If the IH-Com Communicator does not automatically start, double click the icon to start it  NOTE: The PC in which IH-Com Communicator is installed must always be started first  to guarantee communication to the instruments and the LIS. The application launcher  opens first. It checks whether the application and the necessary services are available. | | | |
|  | 2 | Wait until the IH-Com Communicator is active. | | | |
|  | 3 | Open IH-Com Client by double clicking on the desktop icon. | | | |
|  | 4 | The software will start, login by selecting ‘Program’ from the menu bar and then ‘User Login’ **Program** **User Login** | | | |
|  | 5 | Enter User ID and Password | | | |
| Starting the  IH-500 | 1 | The main power switch is on the right side of the instrument. Switch to “I” if necessary.  NOTE: This should always be on. Only turn off using this method if directed to by customer support. | | | |
|  | 2 | Press the power button on the front of the IH-500 (#2 on diagram) until the audible sound, then release.    Power button close up | | | |
|  | 3 | The computer will start and the touch screen monitor will turn on. | | | |
|  | 4 | When the Log In screen displays, enter a valid User ID and password, select ‘Validate.’ | | | |
|  | 5 | The instrument will initialize and go to ‘Ready’ status after initialization. If the instrument state displays ‘Stopped’, an error occurred during initialization and an action is required, consult the user manual. | | | |
|  | 6 | Check the solid bin release latch (#11 on diagram above) and click back into the locked position. The solid waste bin releases upon shutdown. | | | |
|  |  | | | | |
| Shutting down the IH-500 | **Step** | Action | | | |
|  | 1 | Select the ‘Menu’ button in the IH-500 software.  NOTE: Always shutdown IH-500 with the shutdown function. Only use the main power switch in the case of an emergency. Using the main power switch of the instrument leads to an immediate stop and may lead to damage of the instrument. | | | |
|  | 2 | Select the ‘Shutdown’ button and then ‘Yes’ when the dialog box opens.    NOTE: It is not possible to shutdown if tests are in progress or if the drawers are open. Use STOP ALL function first if needed. | | | |
|  | 3 | Reagent vials will automatically be unloaded to the left drawer.    Select the left drawer on the interactive image and open the left drawer by selecting  to remove the reagents. | | | |
|  | 4 | Store reagent vials in the fridge and close the left drawer. | | | |
|  | 5 | The solid waste latch will release and the computer and monitor will power off. | | | |
|  | 6 | Empty the solid waste bin, put back into place, and click it back into the locked position. | | | |
| **Shutting down the IH-Com PC and Workstation PC** |  | | | | |
| **Step** | Action | | | | |
| **1** | Exit IH Com Client by clicking the ‘X’ in the top right corner of the window or by selecting ‘Program’ from the menu bar and then ‘Quit’. | | | | |
| **2** | Wait until the IH-Com Client closes | | | | |
| **3** | Exit IH Com Communicator by selecting the IH-Com Communicator icon on the bottom toolbar or double clicking the IH-Com Communicator icon on the Workstation PC.   1. Select ‘Program’ from the menu bar then ‘Close’ | | | | |
| **4** | Wait until the IH-Com Communicator closes | | | | |
| **5** | Shutdown the computers by selecting the ‘Start’ button and ‘Shutdown’ | | | | |
|  | | | | |
| **References** | 1. IH-Reader 24 User Manual V1.0-06/2018, Chapter 3, Sections 3.1 and 3.2 2. IH-Com User Manual NA V1.2-02/2021, Chapter C, Sections 2 and 3 3. Microsoft, (n.d.) Optimize Windows for Better Performance, Restart Regularly, <http://windows.microsoft.com> | | | | |
| **Approval**  **Workflow** | Transfusion Service/Lab Director | | | | |
|  |  | | | | |
| **Historical Record** | **Version** | | **Written/Revised by:** | **Effective Date:** | **Summary of Revisions** |
| 1 | | J. Hudgens | 02/17/2023 | Initial Version |