



AVImark[®] **Abaxis HM2**

VERSION 2011.1 AND HIGHER

Interfacing AVImark with the Abaxis HM2

Machine Settings

There are some settings that need to be made on the HM2 to ensure the communication between the HM2 and AVImark. The settings are as follows:

1. On the Abaxis machine press the **Utility** key (symbol of a nut and bolt).
2. Select **5. Settings**.
3. Select **2. Customize**.
4. Select **I. General Settings**.
5. PC link (Baud Rate) should be set to **9600** or **USB** if using a USB connection.
6. Serial Protocol Version should be **3. I**.
7. Serial Decimal Dot should be **Language Def**.



It is possible to connect to the AVImark computer via a USB connection if the proper drivers are installed as recommended by the instrument manufacturer. Please contact the manufacturer for the proper cable, driver installation instructions, and machine settings.

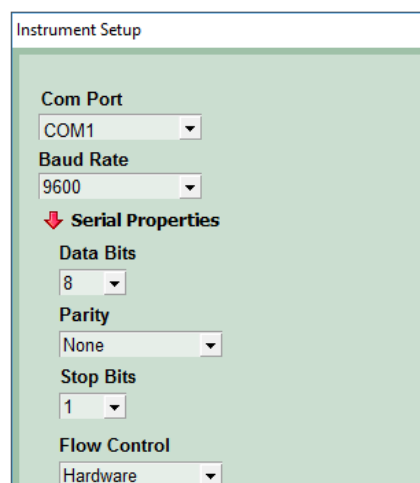
AVImark Setup

From the AVImark workstation used for communication with Abaxis HM2:

1. Click on **Services | Instrument Management** from the menu on the CID to open the Instruments window.
2. **Right-click | New** to open a new Instrument Setup window.
3. Select **Abaxis HM2** from the available drop-down list. The Name, Computer ID, and Protocol should automatically be populated with the proper information once the instrument has been selected.
4. Place a check in the **Active** box, if not already checked.

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5. Select **Next** and choose the appropriate **Com Port**. The Baud Rate should be set to **9600**.
6. Click **Finish** to complete the instrument setup.

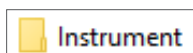


The ability to utilize a “Serial to USB Adapter Cable” for various lab instrument interfaces has been tested with limited success. You will need to check with your lab instrument manufacturer to see if they supply this Serial to USB Adaptor Cable or if they recommend one over another (for there are various brands and types available on the market). With this in mind, AVImark does not guarantee they will all work or be recognized as a communication port by your computer. AVImark is limited to the technical support we can provide if you choose to use this type of device for your lab machine to computer connection.

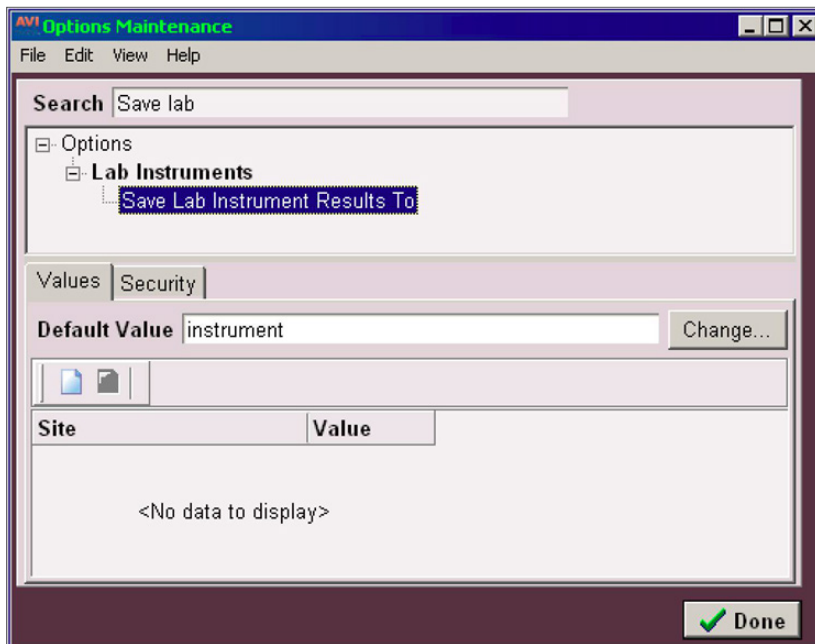
A storage folder which will receive the results from the HM2 is needed. This folder can be created inside the AVImark folder on the server computer. Once this storage folder is created, the path must be defined within the **Hospital Setup | Advanced Option | Save Lab Instrument Results To**.



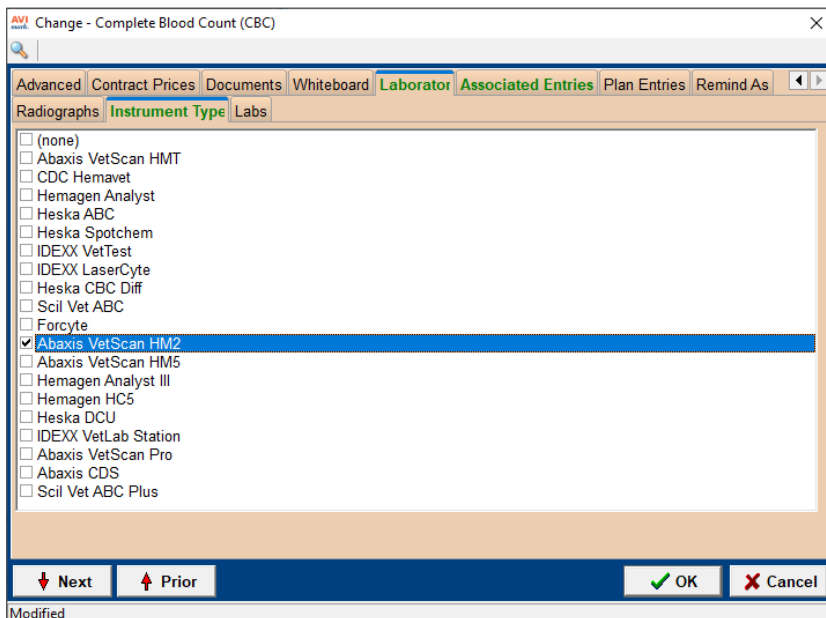
This folder name cannot contain spaces. We recommend a folder named “Instrument” as shown here:



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Assign your instrument to the **Instrument Types** tab of the appropriate AVImark treatment.



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You are able to assign multiple instruments to a single AVImark treatment. If you have more than one instrument used to perform a single treatment, such as a pre-surgical panel, you are no longer required to have one AVImark treatment per instrument. This is also true in the case where there is more than one instrument that can perform the same test, such as an IDEXX instrument and an Abaxis instrument, in which each can run the same CBC test.

The Instrument Import utility is the same as in previous AVImark versions.

- The utility can be found by accessing **Services | Run Instrument Import**.
- This utility is set up to automatically start when AVImark starts, and has the option to Close on AVImark shutdown.
- When AVImark opens you will see the **shaking hands** icon located in the System Tray of your workstation. This indicates AVImark is in communication with the instrument(s) assigned to communication ports on this computer, and is “listening” on each port for any incoming data.



- The options to **Start** when AVImark opens, and **Close** on AVImark shutdown can be controlled by right-click options on the icon in the System Tray.



If you have de-selected the Close on AVImark shutdown option, please note you will need to manually close the connection utility prior to index rebuilding or any other maintenance utility that requires exclusive access to AVImark files. Once the instrument is properly assigned in Hospital Setup, and associated to the AVImark treatment(s), your setup is complete.

The Instrument Import Utility (the shaking hands icon) needs to be closed and reopened at the start of each new day before processing samples. This renews the two-day window of opportunity for an automatic import.

Close and reopen the Instrument Import Utility any time the comport becomes inactive. This can happen when disconnecting the USB to move the machine around or to clean pet hair from around the devices. It can also happen when the analyzer is powered off and back on.

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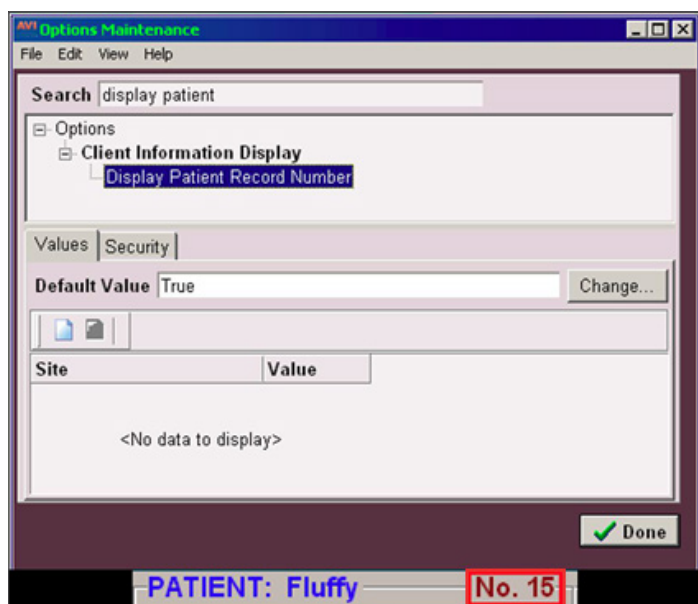
Use

When a treatment is entered into Medical History for a patient who has an instrument assignment, AVImark will start listening to the ports in which the associated instruments are assigned for results. As results are ready to be transmitted, AVImark will import the results to the proper Medical History entry. If the proper Medical History cannot be located, the results will be sent to the new **Test Inbox** to await manual import.

- The import utility will look for a patient with a record number that matches the **Patient ID** field received from the instrument.



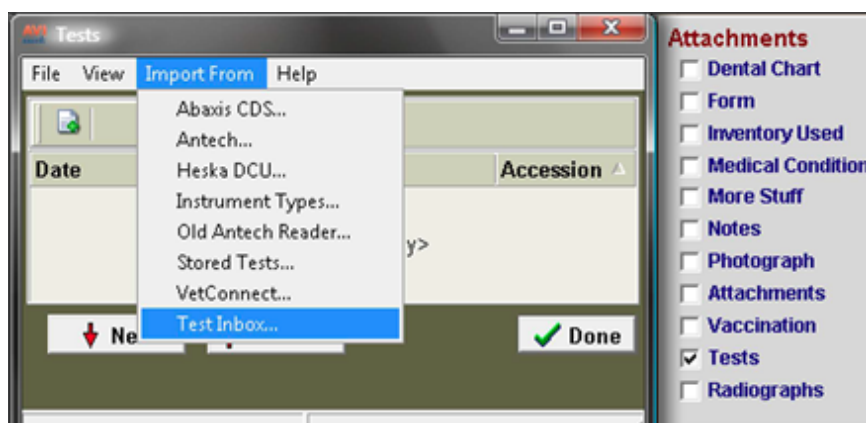
The Patient ID being searched for a match is the AVImark Patient ID. To keep this ID displayed on the AVImark CID, go into the Hospital Setup | Advanced Options | Display Patient Record Number and set it to True.



- When running the test on the designated analyzer, and prompted for a patient identifier, the AVImark Patient ID is the number which will allow the utility to make the proper patient association for automatic result import.

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- If this is successful, the recent medical history of the patient is searched for a recorded treatment set to store results from the instrument.
- Once the patient identifier is located for the incoming results, the utility will begin searching for a Medical History entry for the patient awaiting results.
- When the Medical History entry is located, the results will be automatically imported into the **Tests Attachments** area.
- If the Patient ID doesn't match or exist, or there is no matching Medical History entry on the patient awaiting results, the test results are placed in the **Test Inbox**.



- To manually import the results sent to the Test Inbox, highlight the Medical History entry, select the **Tests** attachment | **Import From** | **Test Inbox**. The user will be presented with a list of results transmitted from instruments that did not find the Medical History entry to complete the automatic import. Select the set of results to import to this history entry, then click **Done**.
- When you **Import from** the Test Inbox, the record is actually moved from the Test Inbox into the Medical History entry. This will allow the Test Inbox to only contain results that have not been imported to Medical History.
- As an additional safety measure to ensure no results are lost, an RX\$ file is also created with the transmitted results. This RX\$ file is sent to the user defined Instruments storage folder.
- Results can be imported from this location, if needed, by opening the Tests attachment. Select **Import From** | **Stored Tests**. This will display all stored RX\$ files on the left pane. You can select the RX\$ file that holds the test, move to the right pane, select the test, **right-click** | **Import Test**.

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- In the case of an emergency, where access to results is immediately needed, **right-click** on the treatment in Medical History that has the lab instrument association which represents the test instrument being used. Select **Import Results**. This will open the Associated Instruments window displaying a list of associated instruments for this treatment. Place a check in the box that represents the instrument to receive results. Click the **Import Results** button, and AVImark will begin listening to these ports. As the data is sent from the instrument via the port, AVImark will capture and place it immediately in the Test Results window. After the results are received, the Import Results window will disappear. View the results by selecting the Tests attachment option for the Medical History entry.



To alleviate the chance of sending results automatically to the wrong Medical History record that may also meet the requirements for automatic import selection, we have incorporated a two day time frame to use for searching then selecting the oldest entry in that time frame for which these results would apply, to make the result attachment.

To summarize, the utility will look for the patient record, then start at the farthest date/time as dictated by the two day time frame, and apply it to the first one it finds, versus starting with the most recent and looking back.
