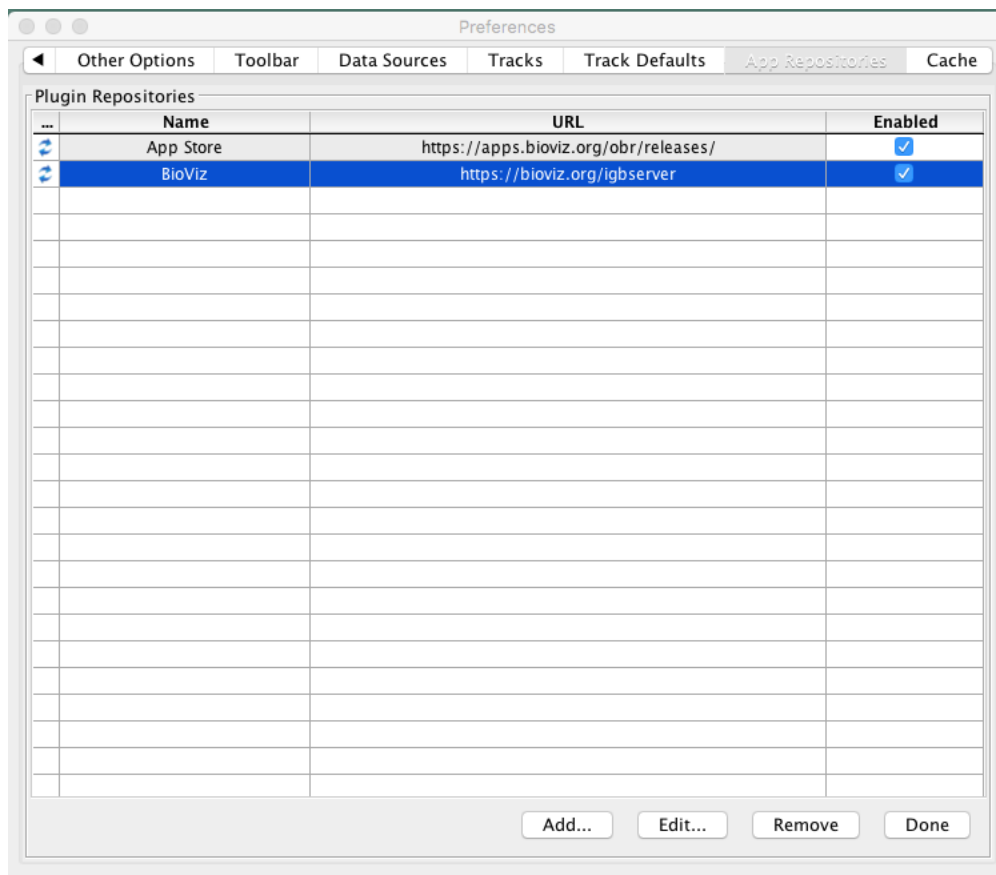


App Manager

General Function Checklist

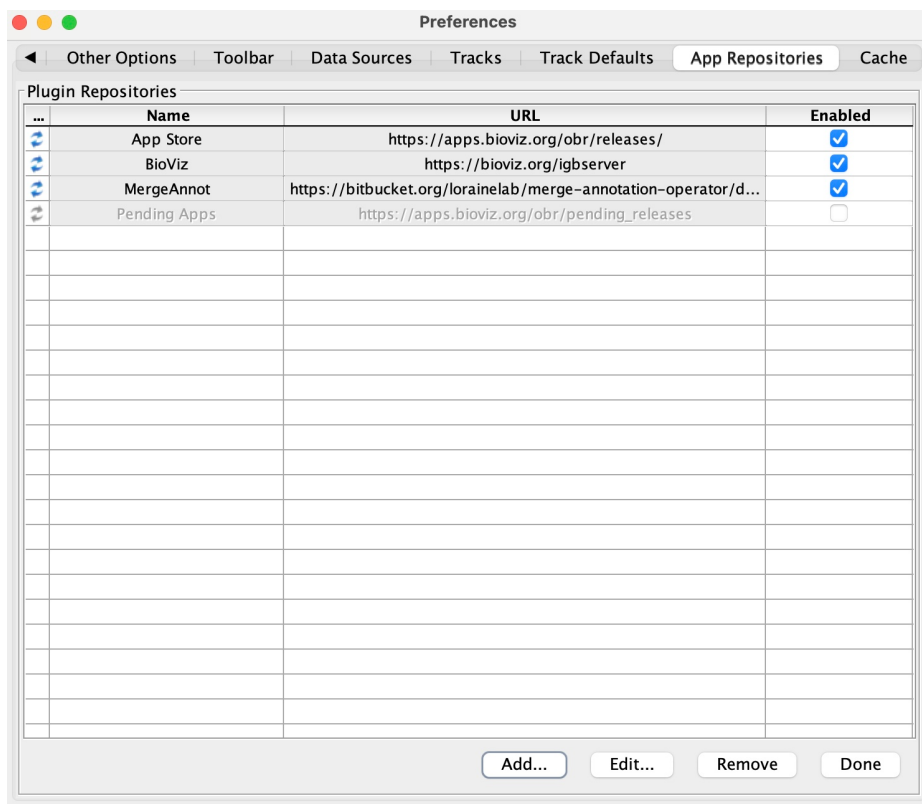
Open the **App Repositories** tab in **Preferences**.

- The **App Repositories** table matches the image below (both servers should be enabled).



- ☒ Mac
- ☐ Windows
- ☐ Linux

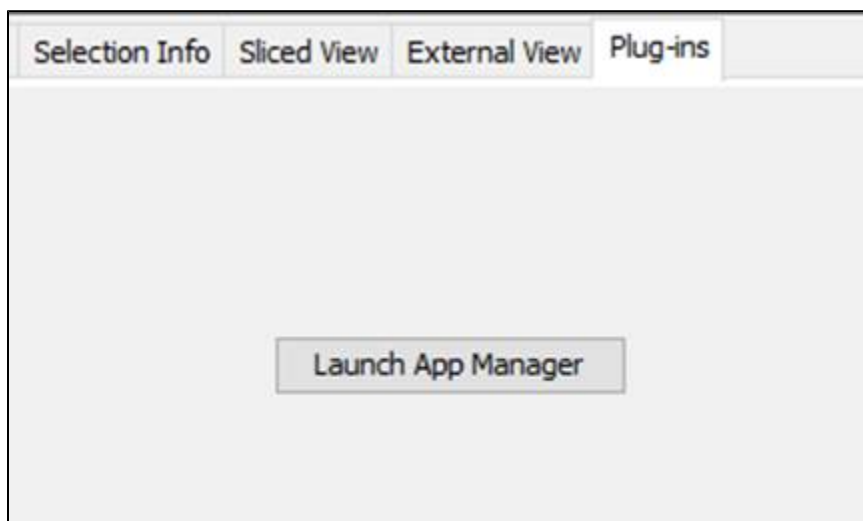
1. Click the **Add...** button.
 - a. Name: MergeAnnot
 - b. URL: <https://bitbucket.org/lorainelab/merge-annotation-operator/downloads/> (This URL contains an App jar file and OBR index file which makes this a valid App repository)
 2. Click **Submit**.
- The **MergeAnnot** app repository has been added to the **App Repositories** table with the **Name** and **URL** displayed exactly as you entered them.



- ☒ Mac
- ☐ Windows
- ☐ Linux

Close **Preferences**. Select the **Plug-ins** tab at the bottom of IGB.

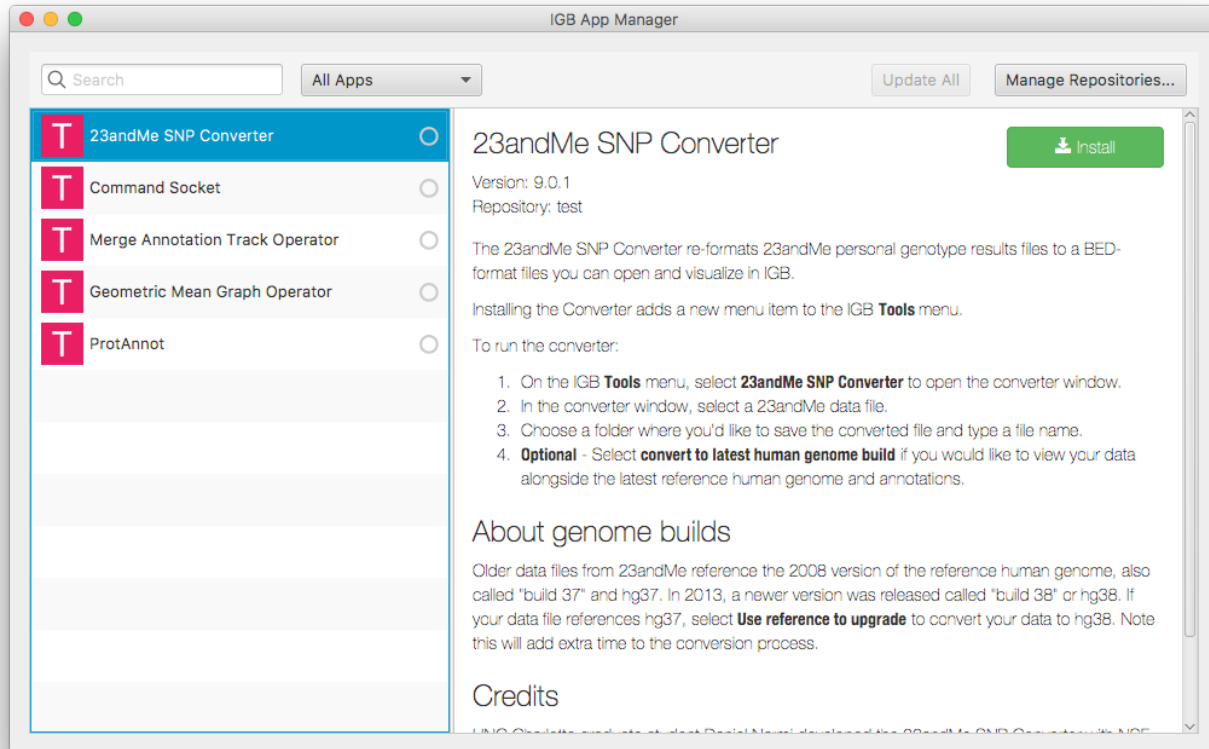
- There is a **Launch App Manager** button.



- ☒ Mac
- ☐ Windows
- ☐ Linux

Click **Launch App Manager**.

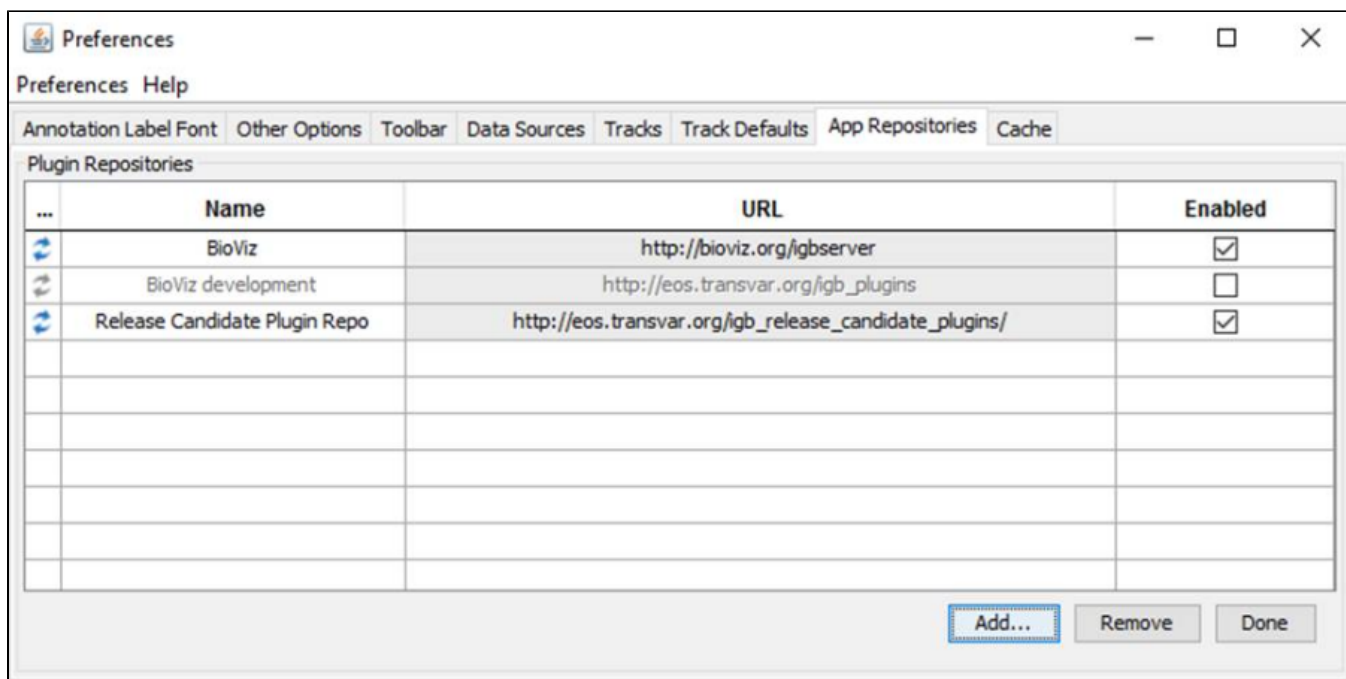
- The **IGB App Manager** opens and contains apps similar to those shown below.
 - **Note:** Before selecting any of the plugins at the left, the area at the right is blank. The letter/color for any plugins that are present in both the default set and the test repository will change. By default it is a B for BioViz. If you name the test repository "Test" then they all change to a "T". (**UPDATE IMAGE**)



- ☒ Mac
- ☐ Windows
- ☐ Linux

Select **Manage Repositories...**

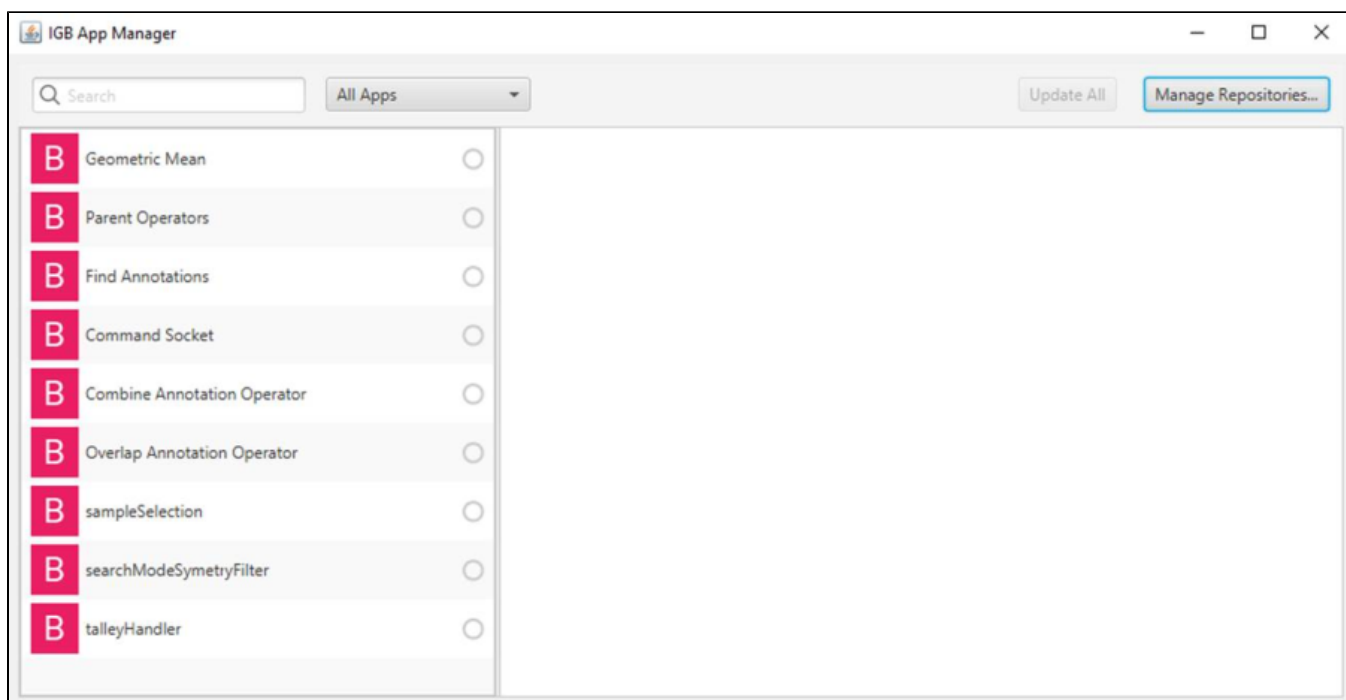
- The **App Repositories** tab in **Preferences** opens.



- ☒ Mac
- ☐ Windows
- ☐ Linux

1. Select the checked checkbox in the **Enabled** column to disable the **MergeAnnot** app repository.
2. Ensure the **BioViz** app repository is enabled, and then click **Done**.
3. Select the **Plug-ins** tab at the bottom of IGB and launch the **IGB App Manager** again.

- The available **BioViz** apps are listed and the color of the "Merge Annotation Track Operator" app's icon changes to indicate that the **MergeAnnot** app repository isn't being used (**UPDATE IMAGE**):



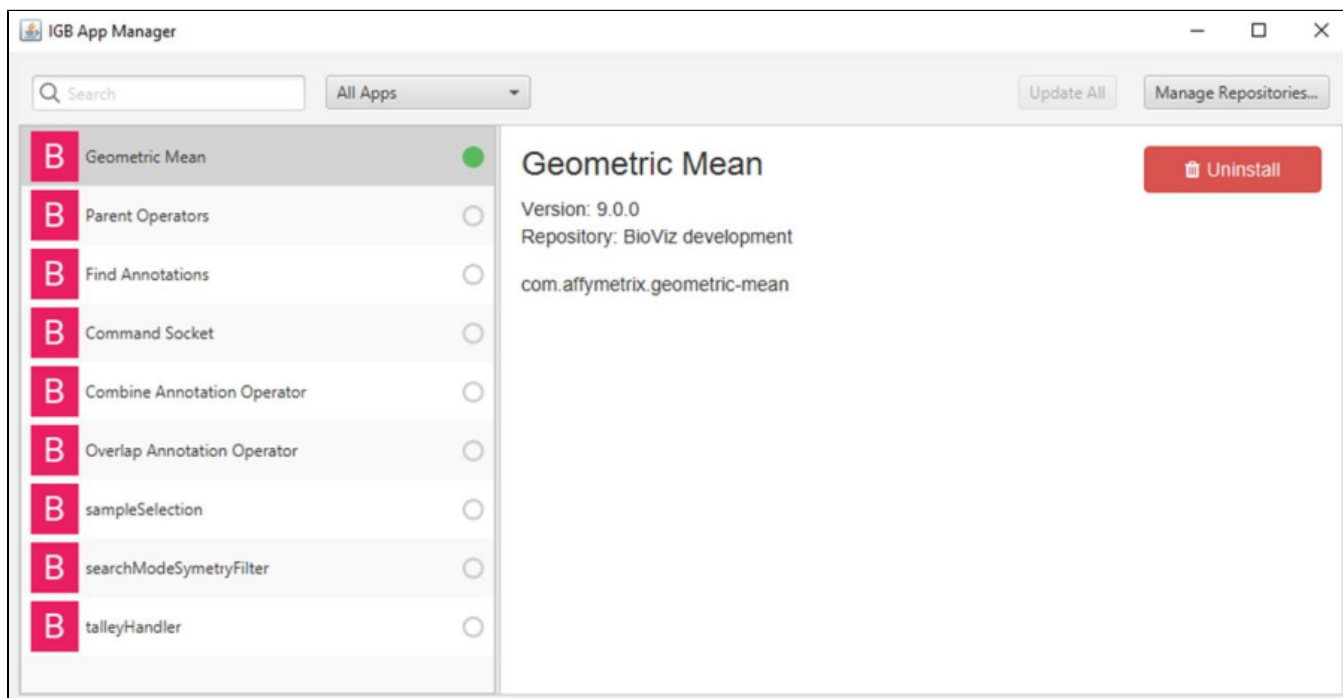
- ☒ Mac
- ☐

☐ Windows

☐ Linux

Install the **Geometric Mean** app by selecting it from the list and clicking **Install**.

- The **Install** button toggled to read **Uninstall** and there is a green dot next to the **Geometric Mean** app to indicate an installed status.



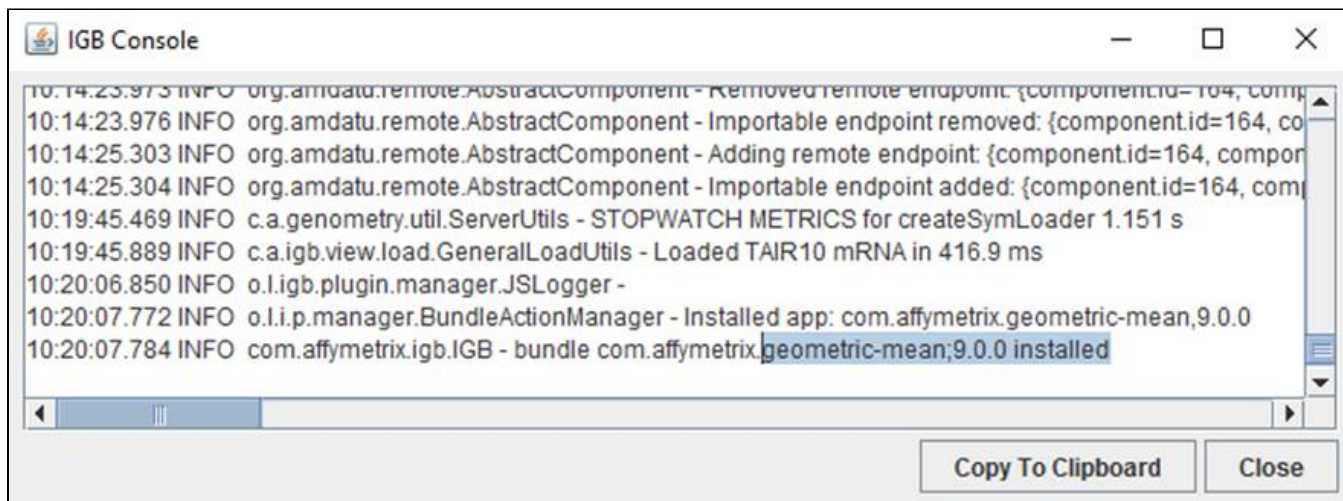
☒ Mac

☐ Windows

☐ Linux

1. Close the **IGB App Manager**.
2. View the **Log** by selecting **Help > Show Log**.

- A logging statement confirms that the **Geometric Mean** app was installed correctly.



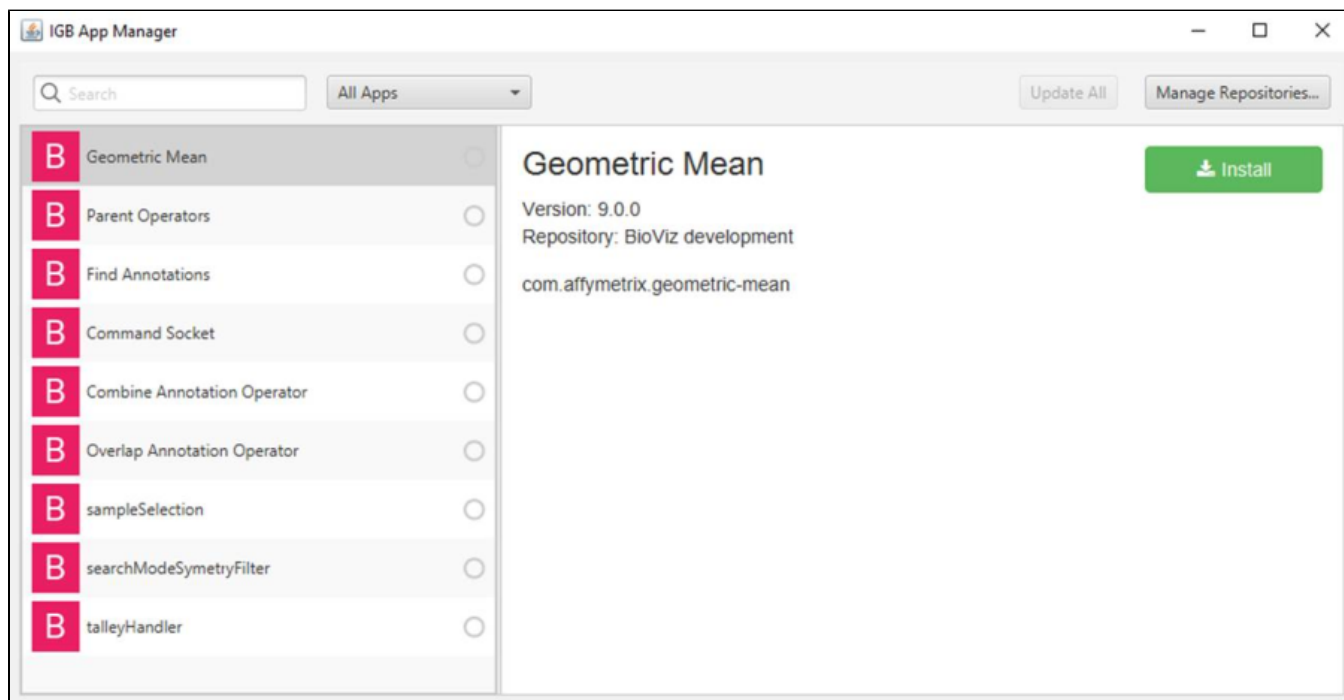
☒ Mac

☐

- ☐ Windows
- ☐ Linux

1. Launch the **IGB App Manager** again.
2. Uninstall the **Geometric Mean** app by clicking the **Uninstall** button.

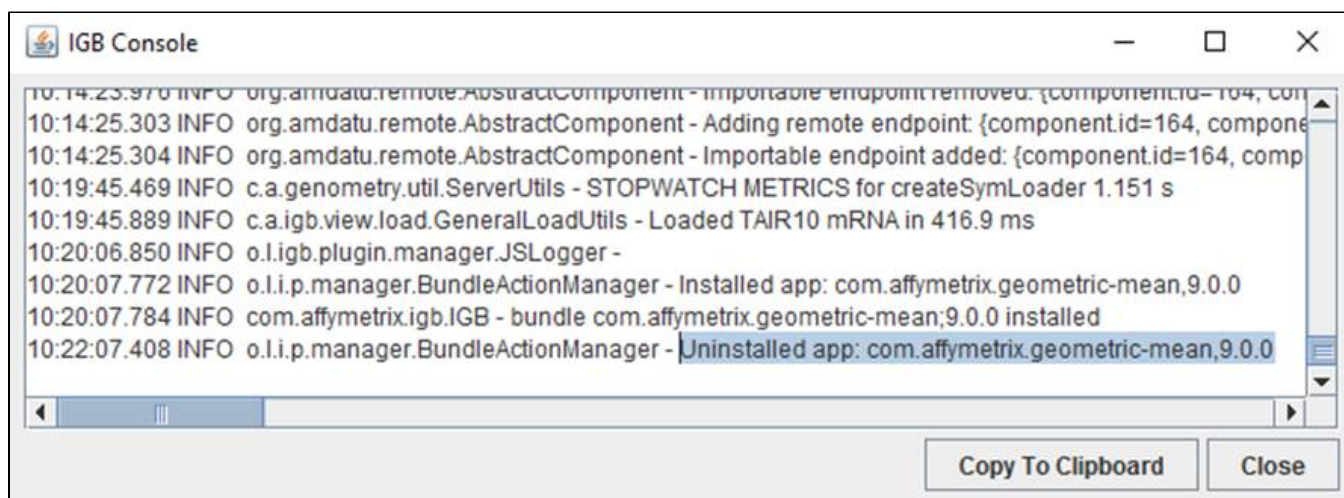
- The **Uninstall** button now reads **Install** and the green dot next to the **Geometric Mean** app is now gone.



- ☒ Mac
- ☐ Windows
- ☐ Linux

Close the **IGB App Manager** and open the **Log**.

- A logging statement confirms that the **Geometric Mean** app was uninstalled correctly.

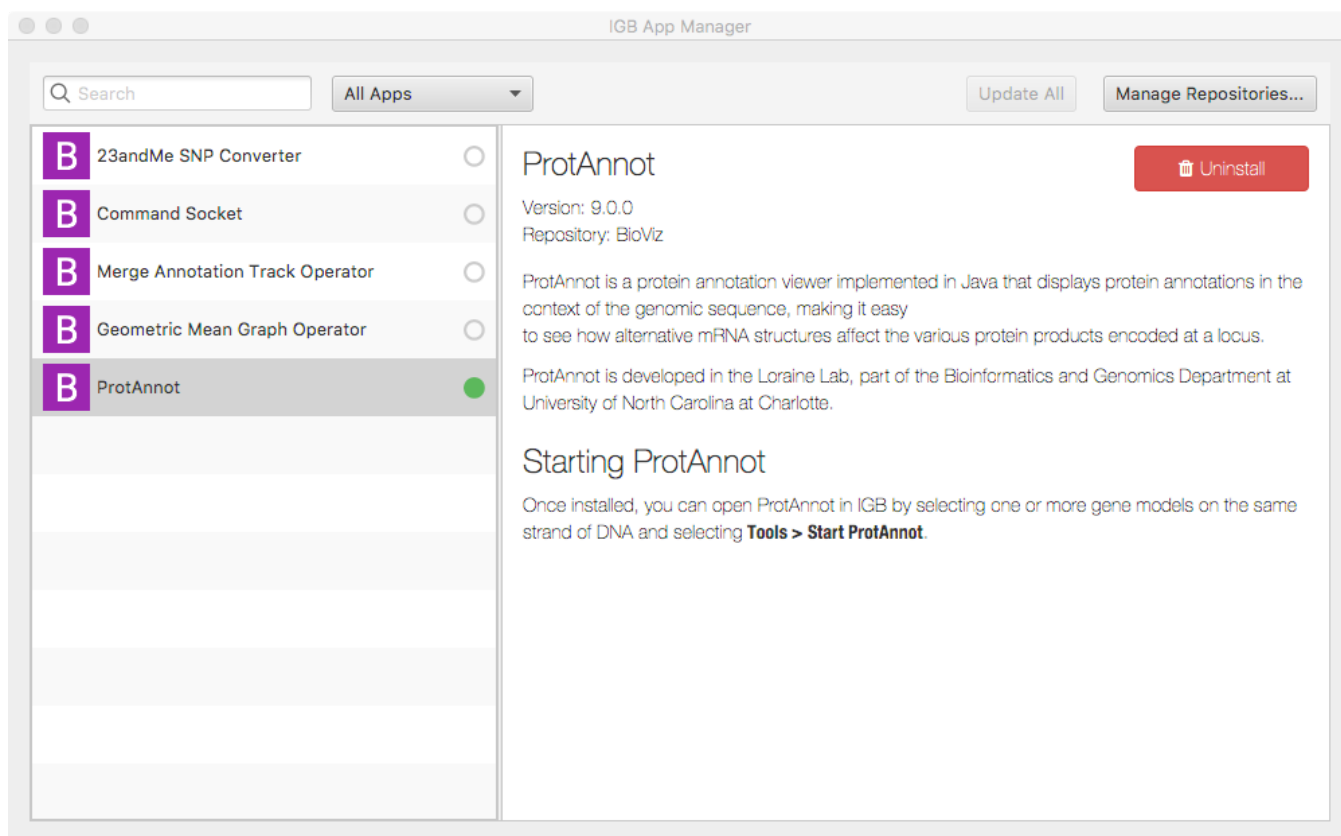


- ☒ Mac
- ☐ Windows

☐ Linux

Launch the **IGB App Manager** again and install the **ProtAnnot** app.

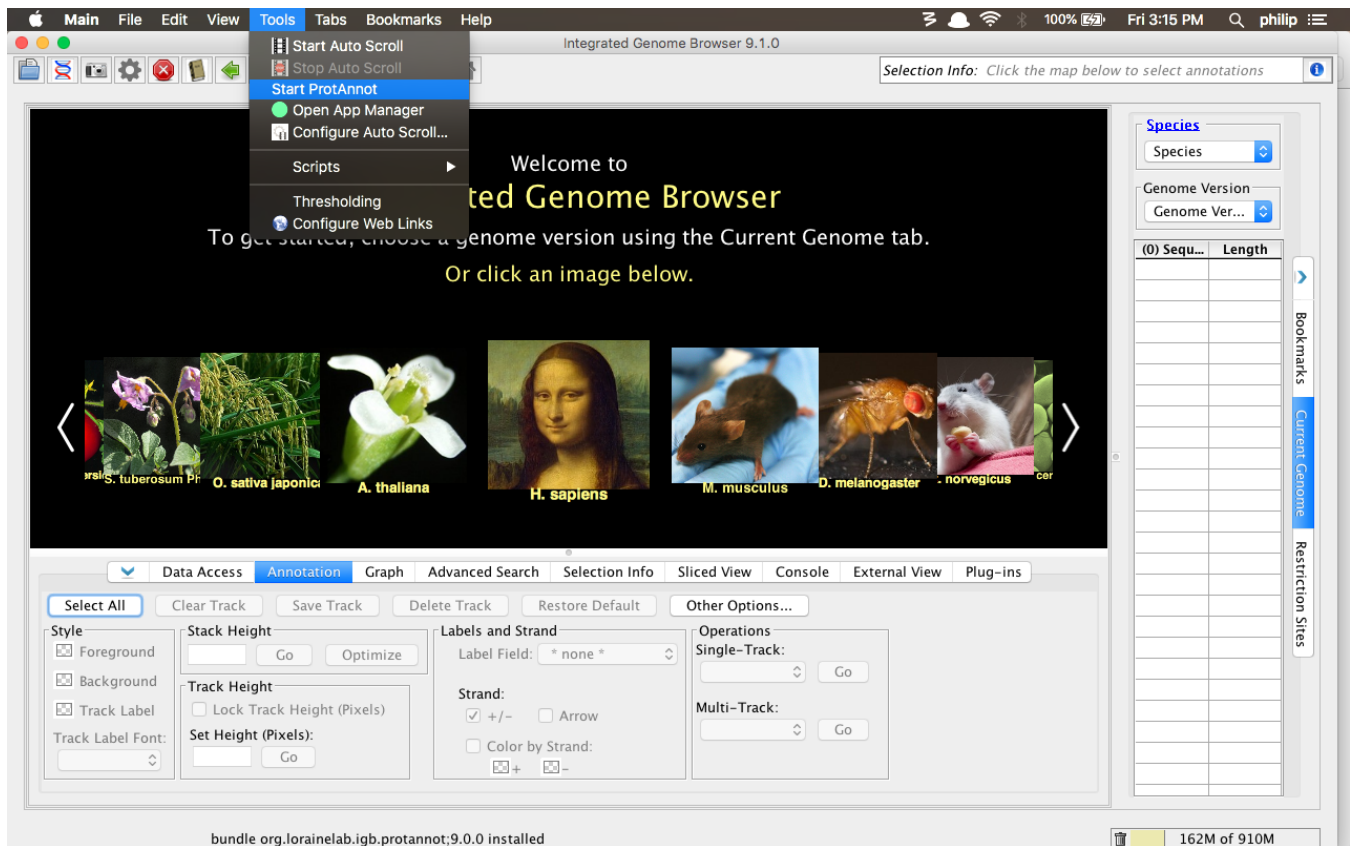
- The **Install** button toggled to read **Uninstall** and there is a green dot next to the **ProtAnnot** app in the list to indicate an installed status.



☒ Mac
☐ Windows
☐ Linux

Close the **IGB App Manager** and click **Tools**.

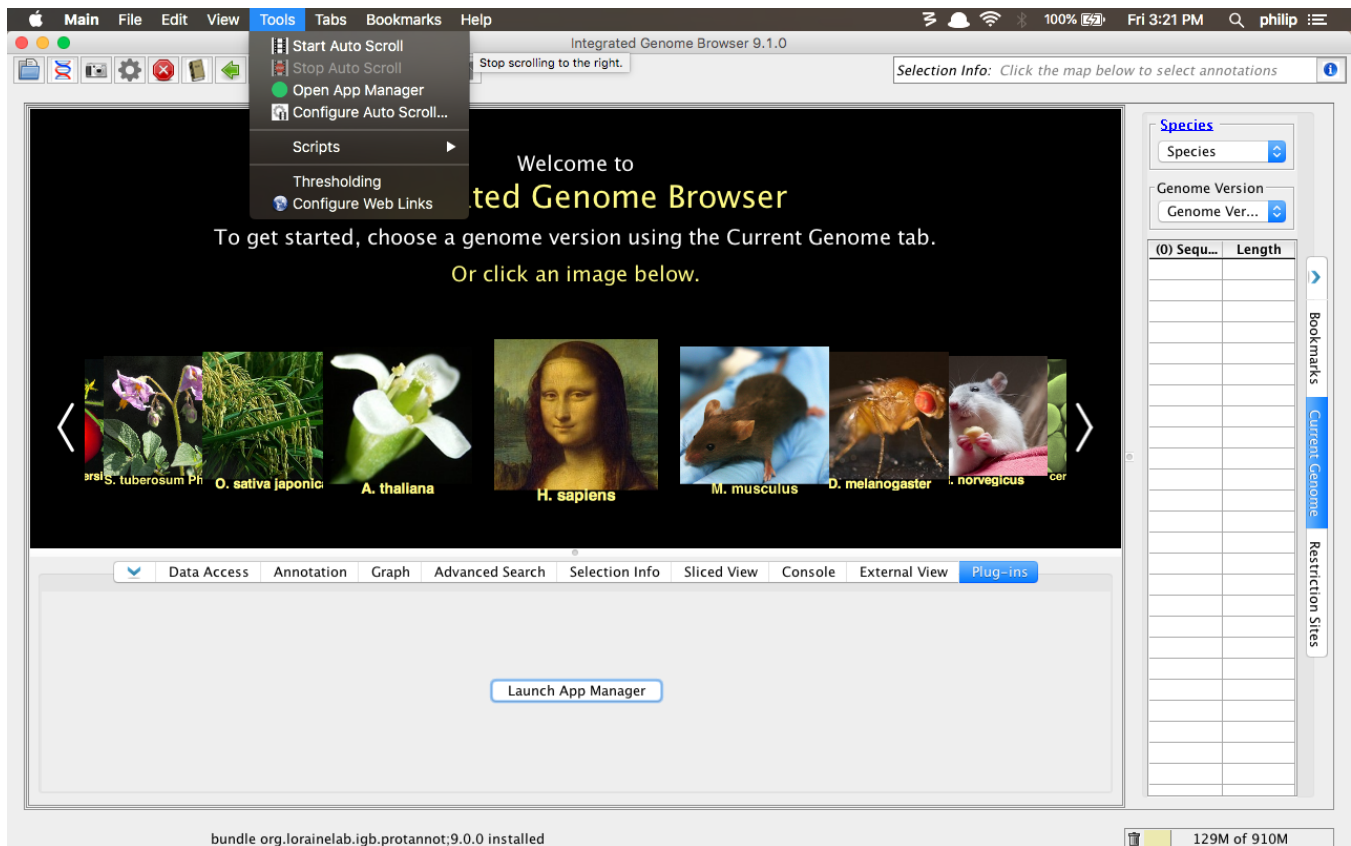
- A new **Start ProtAnnot** option appears in the **Tools** menu.



- ☒ Mac
- ☐ Windows
- ☐ Linux

1. Launch the **IGB App Manager** again.
2. Uninstall the **ProtAnnot** app.
3. Close the **IGB App Manager**.
4. Click **Tools**.

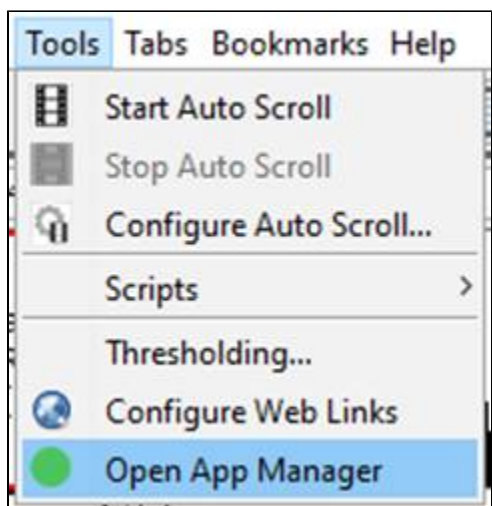
- The **Start ProtAnnot** option has disappeared from the **Tools** menu.



- ☒ Mac
- ☐ Windows
- ☐ Linux

Click **Open App Manager** in the **Tools** menu.

- The IGB App Manager opened.



- ☒ Mac
- ☐ Windows
- ☐ Linux

Select the **Command Socket** app from the list.

- The **Command Socket** app contains content in the App Manager that provides additional details about the app (this ensures that the **IGB App Manager** is using the README files appropriately).

The screenshot shows the IGB App Manager window. On the left, a list of apps is displayed, each with a red square icon containing a white letter 'B' and a radio button to its right. The 'Command Socket' app is highlighted with a blue background. The right pane shows the details for the 'Command Socket' app, including its version (9.0.0), repository (BioViz development), a description of its functionality, and an example Bash script. A green 'Install' button is visible in the top right corner of the details pane.

IGB App Manager

Search [] All Apps [v] [Update All] [Manage Repositories...]

Command Socket [Install]

Version: 9.0.0
Repository: BioViz development

The IGB Command Socket App opens up a socket on port 7084 for receiving scripting commands. This feature can be useful for orchestrating IGB scripting commands for bash scripts or for interfacing with languages like R.

Example Bash Script for looping through a list of genomic coordinates and exporting an image from the Integrated Genome Browser using the 'Command Socket' plugin

```
#!/bin/sh
# This script requires the 'Command Socket' plugin be enabled from the 'Plugins'
# tab
locationsOfInterest=('chr1:2,246,108-2,271,426' 'chr2:9,488,819-9,531,295' 'chr
3:8,407,934-8,454,574' )

function igbCommand(){
    echo "$1" | ncat 127.0.0.1 7084
}

igbCommand 'genome A_thaliana_Jun_2009'

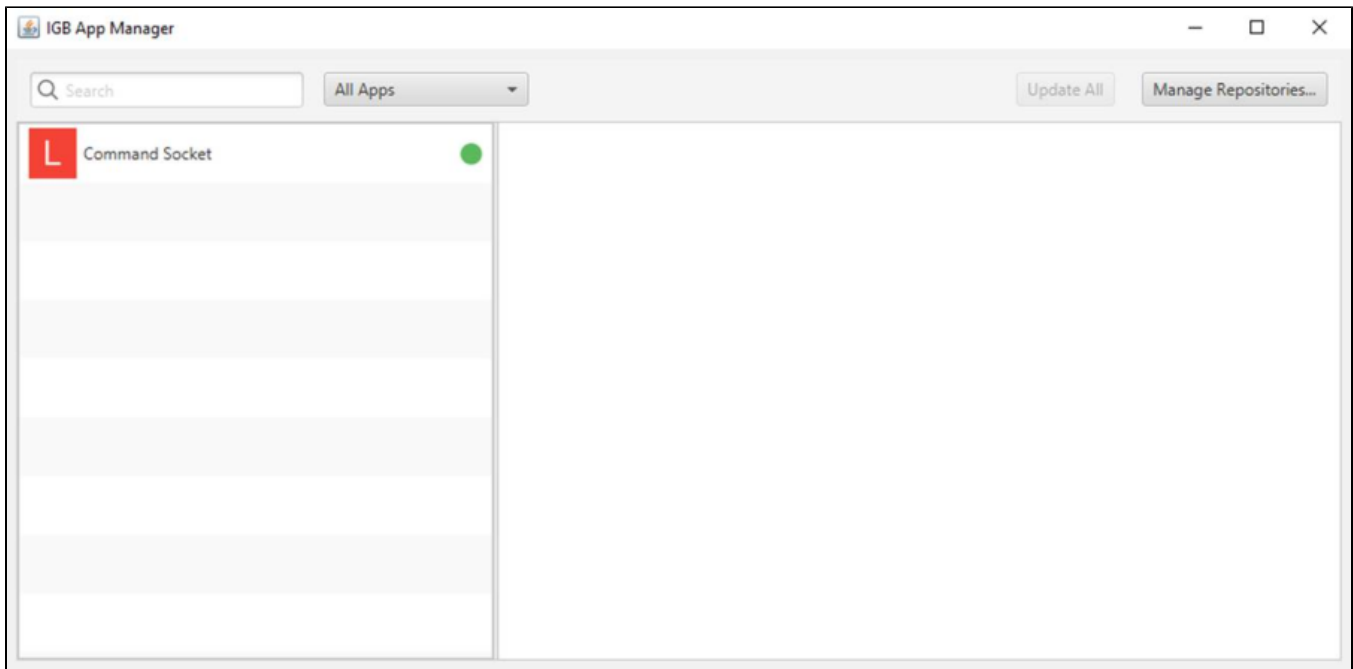
sleep 0.5

for i in "${locationsOfInterest[@]}"
do
    igbCommand 'goto '$i''
    igbCommand 'snapshotmainView /tmp/igbImage-'$i'.png'
    sleep 2
done
```

- ☒ Mac
- ☐ Windows
- ☐ Linux

1. Install the **Command Socket** app.
2. Click **Manage Repositories...** and remove checks from the checkboxes for all of the app repositories.

- The **Command Socket** app is still installed (indicated with a green dot next to the app) and the letter next to the app's name has changed to an "L" (indicating that the app is now installed locally, not from a repository).



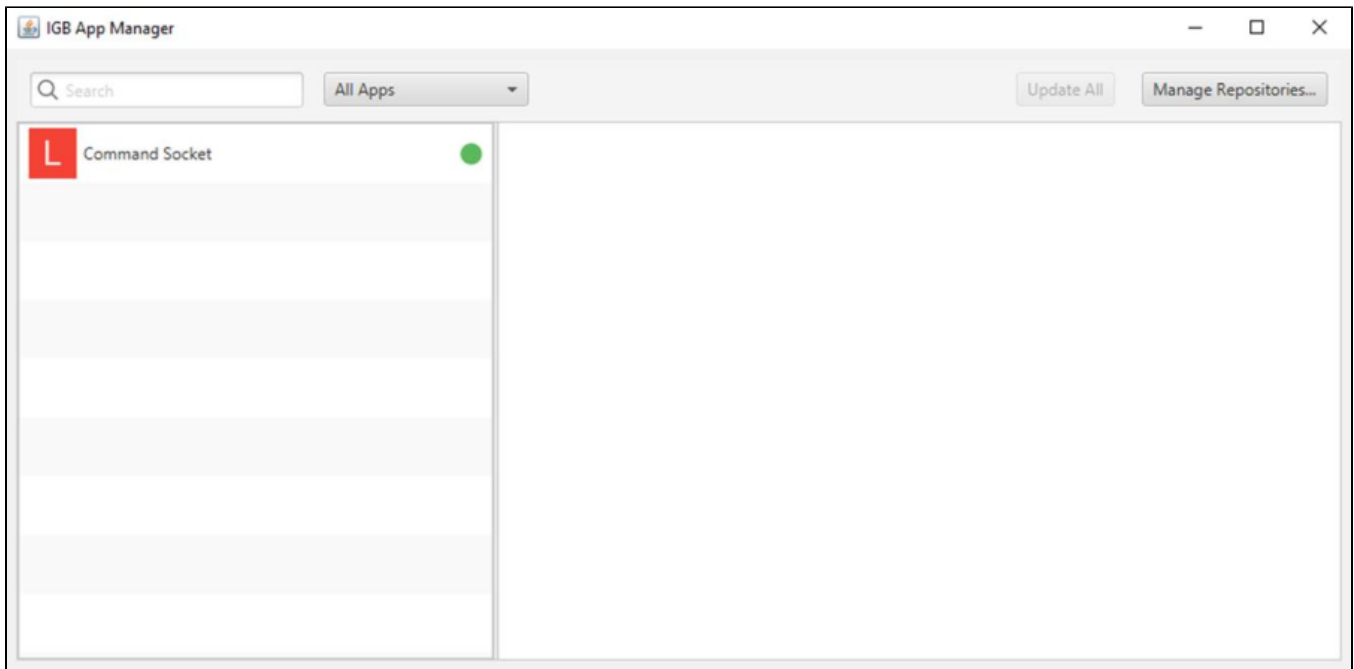
- ☒ Mac
- ☐ Windows
- ☐ Linux

- The **IGB App Manager** only lists installed apps.

- ☒ Mac
- ☐ Windows
- ☐ Linux

Click **Manage Repositories...** and remove all of the app repositories from the **App Repositories** table by selecting the repository and clicking **Remove**. Click **Done**.

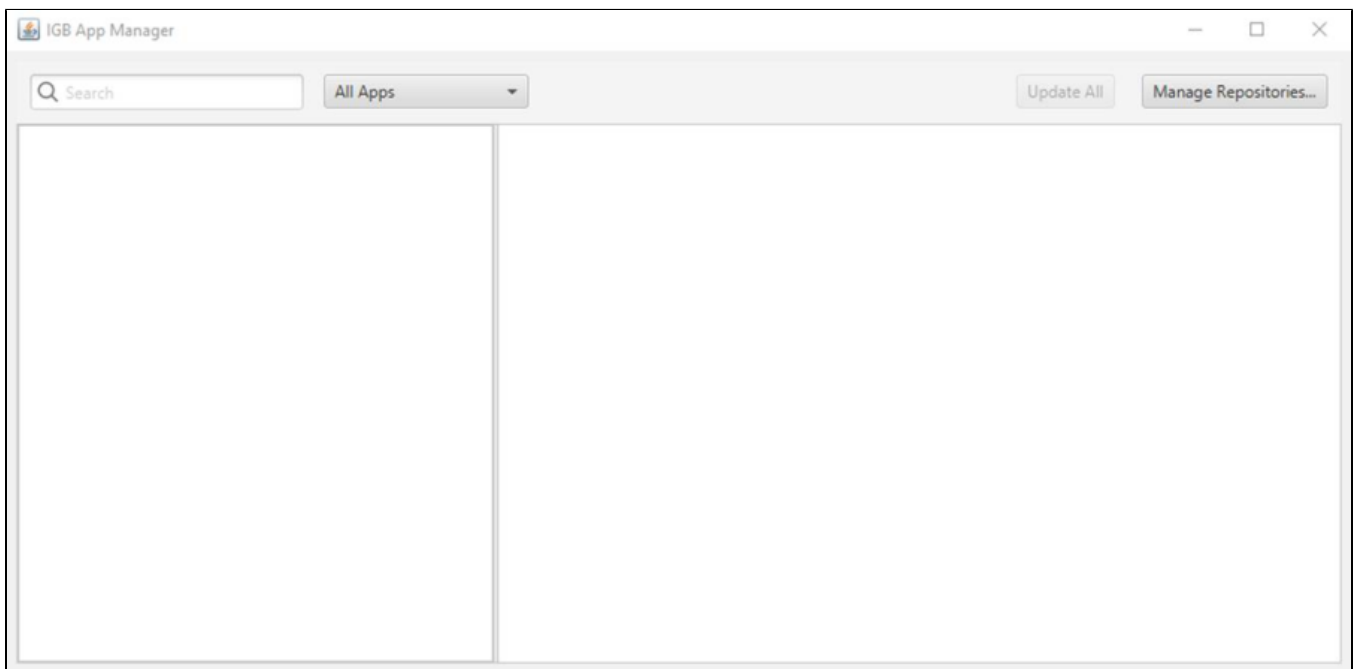
- The **IGB App Manager** still only displays the Command Socket app.



- ☒ Mac
- ☐ Windows
- ☐ Linux

Finally, uninstall the **Command Socket** app by selecting it and clicking **Uninstall**.

- The **IGB App Manager** appears empty.



- ☒ Mac
- ☐ Windows
- ☐ Linux