

October 24, 2020

## Welcome

### Summary

- Cytoscape v3.8.2 is now available for download.
- Addresses 3 issues relative to the prior release (see Section 7 for details)
- Bug fixed to address:
  - CyBrowser installation of yFiles and Cytoscape updates
  - Memory issues when opening large sessions
  - Memory issues when exporting large networks

Release notes: <http://www.cytoscape.org/releasenotes.html>

### Dear Cytoscape User

We are proud to release Cytoscape v3.8.2. This new release contains bug fixes as described in Section 7.

*As of the v3.5 release, we officially withdrew support for Cytoscape 2.x versions, though installable code and documentation will remain available on the Cytoscape web site.*

*V3.8.2 will not work on Java 8 and lower, as official support for these JVM distributions will be discontinued. Certain features of Cytoscape may not function with these JVMs. For users with Java 8 or older, it is highly recommended to upgrade to a newer Java, but Cytoscape versions 3.7.2 and older can be used. Check the relevant release notes for compatibility.*

*For Windows and Mac systems, v3.8.2 installs its own JVM 11 and can operate on systems having Java 8 and later. Linux systems must have JVM 11 on the path or referenced by the JAVA\_HOME environment variable.*

We expect a v3.9 release in early 2021. As our plans firm up, we'll publish them to the Cytoscape community (<http://www.cytoscape.org/roadmap.html>).

*If you are a new or casual Cytoscape user, **welcome aboard!** Feel free to either read on or jump ahead to *What to Do Next* for a quick start.*

## What to Do Next

We hope to help you use Cytoscape in the most productive way. Your next steps depend on how experienced you are with Cytoscape and what you would like to do. In the table below, please find the category that best describes you, and proceed accordingly.

Type of Cytoscape User	Where to Read Next
<b>New</b>	<b>For New Users</b> (Section 1)
<b>Power</b>	<b>For Power Users</b> (Section 2)
<b>App Developers</b>	<b>For App Developers</b> (Section 3)

# 1. For New Cytoscape Users

## What is Cytoscape?

Cytoscape is software that can help you visualize complex networks (aka *graphs*) representing relationships between genes, proteins, or other entities. Cytoscape tracks and displays these entities (as graph *nodes*) and relationships between them (as graph *edges*). Cytoscape, per se, does not assign meaning to either nodes or edges – you can assign your own meanings to them, and you can add your own node or edge attributes (e.g., name, measurements, states, etc.) that customize your graph to represent semantics important to you. While Cytoscape provides simple analytics and visualizations, others are available as apps from the Cytoscape App store (see Section 4).

## What Do I Need Before I Can Use Cytoscape?

At the very least, you must provide Cytoscape with a list of nodes. You can also provide a list of edges and attributes. You can enter your network manually or import it from your own files – Cytoscape supports a wide variety of file formats, including text and Excel. Cytoscape can also load pre-configured networks (e.g., from BioGRID) so you can leverage them without having to enter them yourself.

## Can Cytoscape Help Me Get Started?

Yes! The Cytoscape team has provided many resources tailored for all kinds of users (see Section 6). To start, there is an Installation Guide and numerous tutorials. Once you load your graph, you may find additional useful analytics and visualizations at the App Store (see Section 4).

## Which Cytoscape Version Should I Use?

Cytoscape v3.8.2 is strongly recommended. It has many improvements over previous Cytoscape v3.x releases.

*Note that if you have already installed a previous Cytoscape version, you can install v3.8.2 without uninstalling your previous version.*

## How to Download and Install Cytoscape

- Surf to <http://www.cytoscape.org>, click on the Download Cytoscape button, and follow the prompts
- ***Be sure to consult with the Release Notes (viewable via the Release Notes button) for issues and solutions pertaining to your installation***
- Surf to <http://manual.cytoscape.org> and follow the instructions in the *Launching Cytoscape* section.

## How to Troubleshoot Cytoscape Installation?

Normally, the main requirement for installing Cytoscape is a Java Virtual Machine (JVM) appropriate for your workstation. For Windows and Mac users, Cytoscape 3.8.2 provides a suitable JVM if your system doesn't already have one (AdoptOpenJDK JVM 11.0.4). For Linux users, be sure to have a JVM (Java 11 version 11.0.4 or later) available on your PATH or named via the JAVA\_HOME environment variable.

Regardless of your workstation operating system, you can learn whether your environment is sufficient to execute Cytoscape by following the Troubleshooting instructions at <http://www.cytoscape.org/troubleshooting.html>.

## 2. For Cytoscape Power Users

### How to Prepare for Cytoscape

1. If you have already installed a v3.8.2 RC version, *please uninstall it before proceeding*. Previous Cytoscape versions can coexist with v3.8.2, and do not need to be uninstalled.
2. Browse the Cytoscape Roadmap (<http://www.cytoscape.org/roadmap.html>) and Support Offering table (Section 6) to see where the Cytoscape community is going.

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Regardless of your workstation operating system, you can learn whether your environment is sufficient to execute Cytoscape by following the Troubleshooting instructions at <http://www.cytoscape.org/troubleshooting.html>.

### 3. For Cytoscape App Developers

Cytoscape manages graph storage and display, and contains a number of common analytic and visualization functions. App Developers may write *apps* to perform problem-specific analytics, graph layouts, or other visualizations.

Before starting app development, you should be familiar with overall Cytoscape usage and functionality – see the Power Users section (Section 2) to start working with Cytoscape if you have not already done so.

#### How Do I Get Started With App Development?

To get started with app development:

<https://github.com/cytoscape/cytoscape/wiki/Cytoscape-App-Ladder>

For a full view of the Cytoscape API, refer to:

<http://code.cytoscape.org/javadoc/SNAPSHOT/index.html?overview-summary.html>

#### Are there code samples?

Yes! Sample code appears in the App Cookbook:

[http://wikiold.cytoscape.org/Cytoscape\\_3/AppDeveloper/Cytoscape\\_3\\_App\\_Cookbook](http://wikiold.cytoscape.org/Cytoscape_3/AppDeveloper/Cytoscape_3_App_Cookbook)

## 4. The Cytoscape App Store

The [Cytoscape App Store](#) targets broad demographics through specific features:

Cytoscape User	Benefit
<b>New or Casual</b>	Find Cytoscape functionality easy via familiar paradigms of search and tag navigation
<b>Power or Frequent</b>	Find and install apps easy and provide crowdsourced rating and reviews
<b>App Developers</b>	Have a dedicated presence for their work, including a direct line to their users and critical statistics to justify their development on the Cytoscape platform.

Furthermore, the App Store supports contests and social incentives that encourage critical technical and community development, including porting, analytics, rating/reviewing, and so on.

Note that the App Store supports only Cytoscape v3.x and no longer accepts plugins compatible with earlier Cytoscape versions. Likewise, plugins that work with earlier versions are not compatible with v3.x – the App Store (<https://apps.cytoscape.org>) contains a list of apps available for v3.x.

To access the App Store from Cytoscape, access Cytoscape’s new Apps menu and choose the App Manager menu item.

## 5. Updates in this Release

Feature	Beneficiary	Manual Section
<b>Bug Fixes</b>	All users	No changes to manual

## 6. Support Options

Feature	Purpose	Beneficiary	URL
<b>Cytoscape Helpdesk Group</b>	Community response on best effort basis	All users	<a href="https://groups.google.com/forum/?hl=en_US/#!forum/cytoscape-helpdesk">https://groups.google.com/forum/?hl=en_US/#!forum/cytoscape-helpdesk</a>
<b>User Manual</b>	Comprehensive manual	All users	<a href="http://manual.cytoscape.org/en/stable/">http://manual.cytoscape.org/en/stable/</a>
<b>Installation Guide</b>	Cytoscape installation	New/Casual users	Section 2 of <a href="http://manual.cytoscape.org/en/stable/Launching_Cytoscape.html">http://manual.cytoscape.org/en/stable/Launching_Cytoscape.html</a>
<b>Tutorials</b>	Streamlined productivity	All users	<a href="http://tutorials.cytoscape.org/">http://tutorials.cytoscape.org/</a>
<b>YouTube Channel</b>	Enable casual learning	All users	<a href="https://www.youtube.com/channel/UCv6auk9FK4NgXiqrDLccw">https://www.youtube.com/channel/UCv6auk9FK4NgXiqrDLccw</a>
<b>Presentation Slides on Web Site</b>	Enable casual learning	All users	<a href="https://speakerdeck.com/cytoscape">https://speakerdeck.com/cytoscape</a>
<b>Cytoscape App Dev Group</b>	Community response on best effort basis	App Developers	<a href="https://groups.google.com/forum/#!forum/cytoscape-app-dev">https://groups.google.com/forum/#!forum/cytoscape-app-dev</a>
<b>Code Snippets</b>	Community response on best effort basis	App Developers	<a href="http://wikiold.cytoscape.org/Cytoscape_3/AppDeveloper/Cytoscape_3_App_Cookbook">http://wikiold.cytoscape.org/Cytoscape_3/AppDeveloper/Cytoscape_3_App_Cookbook</a>

## 7. Issues Addressed

The following issues were addressed in v3.8.2. Details for each issue can be found at Cytoscape's Jira issue repository: <https://cytoscape.atlassian.net/>.

### Bug Fixes

- [Disable CyBrowser option for openURL in 3.8.2](#)
- [OutOfMemoryError when opening large session file](#)
- [OutOfMemoryError when exporting large files](#)