

NDEx 2.0 Release Notes - Q1-2017 Update (v2.0.1)

April 7, 2017

Overview

Besides bug fixes and general improvements, the **Q1-2017 Update** restores a number of functionalities that had been temporarily disabled in the NDEx 2.0 official release back in December 2016. In addition, the **NDEx 2.0 installation bundle** is now available for download from our FTP server.

Web User Interface

These are the NDEx web UI changes introduced by the Q1-2017 Update:

- **Re-enabled and expanded "Network Property" editor:** network properties for individual networks and Cytoscape collections with 1 subnetwork can now be edited again in the NDEx UI. Editing network properties for Cytoscape collections with more than 1 subnetwork is not supported in the NDEx UI: such collections should be edited directly in Cytoscape. In addition, the schema of available network properties that are indexed by our Solr server has been expanded. An updated table showing all indexed properties can be found in the user manual Finding and Querying Networks ([../finding-and-querying-networks/](#)).
- **Re-enabled "Bulk Actions":** [Change description](#), [Change reference](#) and [Change version](#) can now be used again to set these properties on multiple networks simultaneously. As for the network properties mentioned above, bulk actions are not available to operate on Cytoscape collections that have more than 1 subnetwork.
- **Added logo and warnings for Cytoscape collections:** the UI now displays a black Cytoscape icon in the network table to easily identify Cytoscape collections that have more than 1 subnetwork. Mouse-over or clicking the icon displays a warning message.
- **Re-enabled the "Advanced Query" feature:** networks can now be queried not only by keywords but also by properties associated with their nodes and/or edges. This feature is handled by our new stand-alone combined query engine using the latest version of the NDEx Python library. The new service is plugged into the existing user interface and no major change will be experienced end users. **!!! Important Note !!!:** the combined query service is not available for Cytoscape collections with more than 1 subnetwork.

Supported Network File Formats

The Q1-2017 Update introduces the "GSEA Gen Set" export format; this feature generates a text file (.grp) containing unique human gene symbols that can be used for enrichment analysis. Additional export formats will be added in future updates.

NDEx 2.0 Installation Bundle

The new NDEx 2.0 installation bundle is now available for DOWNLOAD (<ftp://ftp.ndexbio.org/##>) from our FTP Server. The bundle includes:

- NDEx 2.0 server
- NDEx 2.0 WebApp
- NDEx Sync 2.0 (copier program)
- Combined Query Service

Updated, detailed Installation Instructions ([../installation-instructions/](#)) can be found on this documentation website.

Compatibility Issues

- The copier program (NDEx Sync 2.0) is not back compatible with prior NDEx releases and can only synchronize/update content between servers running NDEx 2.0. For more information, please review the technical document about Using the NDEx Sync Program ([../ndex-sync/](#)).
- Operations on Cytoscape collections with more than 1 subnetwork are limited to uploading (via CyNDEx), sharing and downloading.

NDEx 2.0 Release Notes

December 21, 2016

Overview

The NDEx v2.0 release provides a major improvement in performance, scalability and reliability. Our new, streamlined NDEx 2.0 server and API bring you faster upload/download speeds to handle larger networks, support a larger user-base and heavier traffic loads. Features such as our “Neighborhood Query” have been decoupled from the core server and deployed as stand alone services thus creating a more flexible infrastructure. Improvements in the web UI simplify the end user experience and full support for CyNDEx 3.3.0 strengthen the already tight bond between NDEx and Cytoscape.

Some features of NDEx have been temporarily deactivated in v2.0; we will be adding back these features following a modular, short-cycle release strategy. A few features have been permanently removed for clarity, stability or simply lack of use. Please take a moment to [carefully review](#) this document before using NDEx 2.0.

!!! NDEx 2.0 is currently available ONLY on the NDEx Public server (<http://www.ndexbio.org>): an installation bundle, relative installation instructions and the new copier program (ndex-sync 2.0) will be released later in Q1 2017 !!!

Thanks for using NDEx and please contact us with bugs, suggestions, and requests. We would especially like to hear about the ways in which you would like to use biological networks, either as an end user or application developer: this will help us plan the next phases of NDEx development.

The NDEx Team

Web User Interface

These are some of the web UI changes we have introduced in NDEx 2.0:

Redesign of main NDEx landing page: new “Featured Collections” help you get started using NDEx.

Improved NDEx network viewer: result of a neighborhood query now retain the graphic style of the parent network.

Improved search results table: we added a quick download icon to easily retrieve any network in CX format; we also added a Reference column, Status column as well as Disease and Tissue. The new “Showcase” feature allows you to control which networks are publicly displayed in your user account page. Finally, we removed the Format column.

Added e-mail verification: in NDEx 2.0, you need to verify your e-mail address when creating a new account. After signing up, the UI enables you to view and update your email address.

Removed “Archive” and “Download” features for BEL Namespace files: this feature will be replaced as part of the upcoming release of the new BEL Uploader

Temporarily disabled the “Network Property” editor: although NDEx 2.0 allows Cytoscape users to save and access “collections” containing multiple sub-networks, it currently cannot handle editing of network properties for individual sub-networks. Therefore, we have temporarily disabled the “Network Property” editor for Cytoscape collections that have more than 1 subnetwork.

Added “Bulk Action”:the “read-only” flag can now be set/unset for multiple networks at the same time.

Disabled some “Bulk Actions”: [Change description](#), [change reference](#) and [change version](#) are temporarily unavailable for any networks.

Improved “Neighborhood Query” feature: this feature is now deployed as a stand alone service using the latest version of the NDEx Python client. Nothing changed in the user interface. More info about this feature are available below.

Temporarily disabled the “Advanced Query” feature: the advanced query feature is currently in development and will be restored in Q1 2017.

Supported Network File Formats

In NDEx 2.0, the web UI only allows the direct **UPLOAD** of networks in **CX (.cx)** format.

!!! IMPORTANT NOTICE !!!

Other network formats, including but not limited to **BioPAX Level 3 (.owl)**, **XGMML (.xgmml)** and **SIF/Extended Binary SIF (.sif)**, can be loaded to NDEx directly from Cytoscape using the CyNDEx (<http://apps.cytoscape.org/apps/cyndex>) App available in the Cytoscape App Store. Please refer to the CyNDEx tutorial ([/ndex-cyapp-tutorial-alt/](#)) for additional info.

NDEx 2.0 allows to **DOWNLOAD** networks only as **CX (.cx)** files through the new “Quick Download” icon in the NDEx UI.

Additional planned **EXPORT** formats include SIF, Microsoft Excel, TSV, GSEA and will be added later in Q1 2017.

New Features

Neighborhood Query

The NDEx 2.0 Network Query is a fast, convenient way to view a subset of your network. Query performance is increased by 30% for networks with up to 10,000 edges; in addition, the Query service is now deployed as a stand-alone component and completely decoupled from the core NDEx server, thus allowing the release of improvements and new features independently of server updates. No changes were made in the web UI Query controls.

NDEx 2.0 API

For developers, the REST API has been streamlined and clarified. Please review the new NDEx 2.0 API ([/using-the-ndex-server-api](#)) documentation for details.

Full CyNDEx support

Cytoscape and NDEx are the two main components of the new service-oriented “Cytoscape Cyberinfrastructure”. NDEx 2.0 therefore fully supports the previously released Cytoscape API. You can keep using CyNDEx v3.3.0 with your favorite Cytoscape version (3.3 or higher) and save your networks to either an NDEx v1.3 server or the new NDEx 2.0 Public server.

Supported Web Browsers

We recommend that you always update your preferred web browser to the latest version whenever possible. NDEx fully supports the following browsers:

- Google Chrome
- Mozilla Firefox
- Safari

Compatibility Issues

The copier program (NDEx Sync v1.3.3) is not compatible with the new NDEx 2.0. We will release a new copier program later in Q1 2017.