

CyVerse Webinar Chat Text:
Bright Lights, Big Data: Leveraging NEON's Public
Resources Using CyVerse
Feb 19, 2021

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11:11:49 From Donny Winston to Everyone : Can one register for email notifications if a data product previously downloaded has a new issue?

11:14:24 From Donal O'Leary (he/his) NEON to Everyone : Great question Donny - yes you can sign up for alerts on particular data products if you sign up for a NEON Data User Account (which I will touch on after Bridget's section). Instructions for setting up a user account can be found here:
<https://www.neonscience.org/about/user-accounts>

11:14:48 From Donny Winston to Everyone : @Donal great, thanks!

11:15:22 From Donal O'Leary (he/his) NEON to Everyone : FYI I will be pasting these instructions and commands here in the chat:

11:15:26 From Donal O'Leary (he/his) NEON to Everyone : 1. Launch new Discovery Environment (2.0): sonora.cyverse.org

11:15:34 From Donal O'Leary (he/his) NEON to Everyone : 2. Apps > Search for "JupyterLab Geospatial 2.2.9"

11:16:44 From Donal O'Leary (he/his) NEON to Everyone : 3. (Optional) select a shared folder to connect to existing resources on the Data Store

11:17:47 From Donal O'Leary (he/his) NEON to Everyone : 4. Open a terminal & clone github repository:
`git clone https://github.com/bridgethass/CyverseNEON.git`

11:19:00 From Donal O'Leary (he/his) NEON to Everyone : (If you want to clear out the command prompt string, you can use the command `PS1="\w $ "`)

11:20:26 From Donal O'Leary (he/his) NEON to Everyone : 5. You should now see some folders in the Jupyter Lab instance. We'll start with `aop_data_download`, and run the notebook "Download_NEON_AOP_Data_Python_API.ipynb" that demonstrates how to download files from the API using Python. This notebook pulls in the `neon_download_functions` module, which you can build upon as desired.

1. Kernel > Restart Kernel and Clear all Outputs

11:25:17 From Donal O'Leary (he/his) NEON to Everyone : 6. Explore the rest on your own! You can also run other NEON tutorials from the DataSkills repository, or download notebooks from the NEON website and play around (eg. <https://github.com/NEONScience/NEON-Data-Skills.git>)

11:26:09 From Jennifer Clarke to Everyone : Thank you Bridget!!

11:26:34 From Donny Winston to Everyone : So are tiles tiff files but then multi-tile ranges are h5? Hdfs? Extracts to a bunch of 1km x 1km tiff tiles?

11:26:38 From Matthew Aiello-Lammens to Everyone : Very cool Bridget. Thanks for demonstrating this. A quick question - if we follow these steps, then if we edit the Notebook, that is only changing "our" version of the notebook, right?

11:26:59 From Tyson L Swetnam to Everyone : @Matthew, correct, it will only be changed in that VM that you're running

11:27:30 From Bridget Hass to Everyone : @Donny Winston the lidar raster and spectrometer L3 tiles are geotiffs, but the spectral data "cubes" are in hdf5 format

11:27:49 From Donny Winston to Everyone : @Bridget thanks!

11:28:26 From Jennifer Clarke to Everyone : @Donal: nice shoutout to community contributions and code reuse!

11:29:06 From Bridget Hass to Everyone : @Matthew, you can fork the repo to your own GitHub and build from there. We didn't have time in this webinar but on the previous CyVerse-NEON workshop we have detailed instructions on how to save your work and data for longer-term projects

11:29:31 From Tyson L Swetnam to Everyone : <https://cyverse-2020-neon-aop-workshop.readthedocs-hosted.com/en/latest/index.html>

11:29:41 From Tyson L Swetnam to Everyone : That is the URL to our workshop materials from last November

11:29:46 From Matthew Aiello-Lammens to Everyone : Thanks @bridget. That makes sense.

11:30:45 From Tyson L Swetnam to Everyone : For anyone who does not yet have a CyVerse account: <https://user.cyverse.org> is our user portal

11:31:08 From Tyson L Swetnam to Everyone : And if you want to gain access to this interactive environment, you will need to fill out this secondary form: <https://forms.gle/JH65bNTj4nVh9qWY7>

11:32:32 From Charlie Devine to Everyone : I've heard rumors that AOP data will soon be available in Google Earth Engine - is this true?

11:33:14 From Donal O'Leary (he/his) NEON to Everyone : Here's a link to the data portal news: <https://www.neonscience.org/data-notifications>

11:34:38 From Sean Jungbluth to Everyone : what is the current best mechanism to link NEON data with NCBI-based nucleotide sequence data?

11:35:47 From Charlie Devine to Everyone : Very cool - thanks!

11:36:30 From Donny Winston to Everyone : Is the "JupyterLab Geospatial 2.2.9" image available for loading in a Docker environment where I am, or is it best / recommended to use the NEON hosting environment?

11:36:55 From Tyson L Swetnam to Everyone : @Donny, you can run the notebook in CyVerse, or locally, or on a cloud instance

11:36:59 From David LeBauer to Everyone : Just wanted to make sure that everyone is aware of the Ecological Forecasting Initiative's challenge <https://ecoforecast.org/efi-rcn-forecast-challenges/>

"The Challenge revolves around the five theme areas listed below that span aquatic and terrestrial systems, and population, community, and ecosystem processes across a broad range of ecoregions that uses data collected by NEON."

11:37:24 From Sean Jungbluth to Everyone : will do, thanks!

11:38:15 From Tyson L Swetnam to Everyone : <https://github.com/cyverse-vice/jupyterlab-datascience>