\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­M Abeer Sohail­ (­mabeer.sohail21@gmail.com­)­ - 11:52 AM­

Q: ­What is the link where recordings are shares?­

Priority: ­N/A­‑

‑­Arin Nichols (internal)­­­­ - 11:53 AM­

A: ­You can find the virtual training resources at this link: https://sourceforge.net/p/electricdss/code/HEAD/tree/trunk/Training/Virtual-2022/

Virtual Training 2022 recordings

You will find the video recordings at this link: https://www.epri.com/pages/sa/opendss

OpenDSS Download Folder

You can find OpenDSS download folder at https://sourceforge.net/p/electricdss/code/HEAD/tree/trunk/Version8/Distrib/ or on your Windows computer at C:\Program Files\OpenDSS­‑

‑­Celso Rocha (internal)­­­­ - 11:53 AM­

A: ­Presentations will be posted in this page https://www.epri.com/pages/sa/opendss in "Virtual Trainings". But it will take a few days before those are posted­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­sony­ (­sony.varghese@mail.mcgill.ca­)­ - 11:55 AM­

Q: ­Can spyder be used, or only pycharm can be used for interfacing/ implementing algoithms with OpenDSS?­

Priority: ­N/A­‑

‑­Davis Montenegro Martinez (internal)­­­­ - 11:57 AM­

A: ­I gues it can be, have never tried this lib but I guess it should work.­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­yashar.kenarangui­ (­yashar.e.kenarangui@xcelenergy.com­)­ - 11:56 AM­

Q: ­What is the difference between "Source Distribution" and "Built Distribution", when installing from https://pypi.org/project/py-dss-interface/#files?­

Priority: ­N/A­‑

‑­Celso Rocha (internal)­­­­ - 12:01 PM­

A: ­Those are two different ways of getting a Python package. .tar version will also download the source code for you. For more information: https://packaging.python.org/en/latest/tutorials/installing-packages/­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Noel Freeman­ (­noel.freeman@dominionenergy.com­)­ - 11:56 AM­

Q: ­Which IDE are you using?­

Priority: ­N/A­‑

‑­Davis Montenegro Martinez (internal)­­­­ - 11:57 AM­

A: ­Paulo is using PyCharm­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Laura­ (­laura.polanco@pnnl.gov­)­ - 11:57 AM­

Q: ­Are you using OpenDSS or Open DSS -G?­

Priority: ­N/A­‑

‑­Celso Rocha (internal)­­­­ - 11:57 AM­

A: ­OpenDSS is being used­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­sony­ (­sony.varghese@mail.mcgill.ca­)­ - 11:58 AM­

Q: ­Thank you.­

Priority: ­N/A­‑

‑­Celso Rocha (internal)­­­­ - 12:01 PM­

A: ­You are welcome!­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Karen Montano-Martinez­ (­kmontano-martinez@epri.com­)­ - 11:58 AM­

Q: ­I have used Spyder with OpenDSSDirect and it works well. ­

Priority: ­N/A­‑

‑­Celso Rocha (internal)­­­­ - 12:07 PM­

A: ­Thanks for sharing Karen!­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­M Abeer Sohail­ (­mabeer.sohail21@gmail.com­)­ - 11:59 AM­

Q: ­I can't see the recordings at "https://www.epri.com/pages/sa/opendss", will it take some time to appear? I missed a session due to suspended internet because of rain.­

Priority: ­N/A­‑

‑­Arin Nichols (internal)­­­­ - 12:02 PM­

A: ­The recordings will be made available a few days after the workshop ends as we need to do some administrative tasks such as formatting. Check back at that area next week.­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Hasith Jayasinghe­ (­hasithgj@gmail.com­)­ - 12:00 PM­

Q: ­Can you do a modelling for a real world small distribution network from the scratch in OpenDSS?­

Priority: ­N/A­‑

‑­Celso Rocha (internal)­­­­ - 12:04 PM­

A: ­I don't think this will be done in this tutorial, but there are several models available with your OpenDSS installation folder. Look for "examples" and "IEEE test cases" folder. There might be some videos from Paulo where a network is built from scratch. We have a small being created in this video: https://www.youtube.com/watch?v=TRfcX6\_D3Fw&list=PLcOap2oqW\_gEMEVH9dg2HoXJ4NvydfsZM&index=6­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Guilherme Marques Pereira­ (­guilherme\_marques@unifei.edu.br­)­ - 12:03 PM­

Q: ­Hi! How may I get the circuit plot using python?­

Priority: ­N/A­‑

‑­Celso Rocha (internal)­­­­ - 12:07 PM­

A: ­You can use the text interface and write the same commands as you would normally do in OpenDSS standalone version. "plot circuit", for example. Or, if you want to create your own plot, you would need to retrieve the buses coordinates using the Bus interface to draw the buses and then you would need to use other interfaces to draw the other elements between each bus­‑

‑­Davis Montenegro Martinez (internal)­­­­ - 12:07 PM­

A: ­Use the command plot circuit with the text interface (if using COM), it should be the same with DLL­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­yashar.kenarangui­ (­yashar.e.kenarangui@xcelenergy.com­)­ - 12:04 PM­

Q: ­If we can do everything in OpenDSS script, what is the additional advantage of Python script? E.g., can we write hosting capacity algorithm inside OpenDSS?­

Priority: ­N/A­‑

‑­Davis Montenegro Martinez (internal)­­­­ - 12:07 PM­

A: ­Customizing your apps­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Jorge Lara­ (­jlara@iee.unsj.edu.ar­)­ - 12:07 PM­

Q: ­in the py\_dss\_interface library, any command to know all the elements modeled in OpenDSS?­

Priority: ­N/A­‑

‑­Davis Montenegro Martinez (internal)­­­­ - 12:09 PM­

A: ­I think Paulo is talking about it right now­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Md Fazley Rafy­ (­mr00065@mix.wvu.edu­)­ - 12:07 PM­

Q: ­Can I get the recordings after this seminar? I joined late­

Priority: ­N/A­‑

‑­Arin Nichols (internal)­­­­ - 12:11 PM­

A: ­Presentations and recordings will be posted in this page https://www.epri.com/pages/sa/opendss in "Virtual Trainings". But it will take a few days before those are posted.­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Guilherme Marques Pereira­ (­guilherme\_marques@unifei.edu.br­)­ - 12:09 PM­

Q: ­I understood! Thanks!­

Priority: ­N/A­‑

‑­Celso Rocha (internal)­­­­ - 12:11 PM­

A: ­You are welcome!­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Luis­ (­ldgutierrezl@gmail.com­)­ - 12:10 PM­

Q: ­Hi all, thanks for the webinar. I am using OpenDSSDirect in Julia, which works even without installing OpenDSS . However, it seems it does not have the plot capabilities we have in the standalone OpenDSS. Is this included in the DirectDLL you mentioned? Thanks!­

Priority: ­N/A­‑

‑­Davis Montenegro Martinez (internal)­­­­ - 12:10 PM­

A: ­That implementation is not EPRI and we don't support it. Contact the developer for getting more info.­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Bernard Carvalho Bernardes­ (­bcbernardes@ufpa.br­)­ - 12:11 PM­

Q: ­Are there others Python Library instead of py\_dss\_interface?­

Priority: ­N/A­‑

‑­Davis Montenegro Martinez (internal)­­­­ - 12:13 PM­

A: ­Not officially suppoted by EPRI, you can also use COM.­‑

‑­Davis Montenegro Martinez (internal)­­­­ - 12:15 PM­

A: ­In fact, the one Paulo is presenting is his own implementation, EPRI only supports the base: EXE, COM and DirectDLL­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Ali­ (­aarzani@tntech.edu­)­ - 12:12 PM­

Q: ­Hi Arin, regarding your comment i could not find recordings on the link you mentioned. Will they be uploaded at a later time?­

Priority: ­N/A­‑

‑­Arin Nichols (internal)­­­­ - 12:16 PM­

A: ­The recordings will be made available a few days after the workshop ends as we need to do some administrative tasks such as formatting. Check back at that area next week.­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Luis­ (­ldgutierrezl@gmail.com­)­ - 12:13 PM­

Q: ­Thanks Davis. Fair enough. But is it possible to plot if using DirectDLL instead?­

Priority: ­N/A­‑

‑­Davis Montenegro Martinez (internal)­­­­ - 12:13 PM­

A: ­Yes, however, it all depends on the visualization tool you use. For getting the native plots included in DSS, make sure to have the executable DSSVIew.exe in the same folder as the DLL. If using OpenDSS-Viewer, make sure of having the software installe din the local machine and to enable it using the correct command in DSS­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­AZIZ UN NUR IBN SAIF­ (­aziz.saif@ierc.ie­)­ - 12:16 PM­

Q: ­Is activiting an element is same in MATLAB as it is in python?­

Priority: ­N/A­‑

‑­Roger Dugan (internal)­­­­ - 12:17 PM­

A: ­It should be the same in any language and in the text script.­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Ali­ (­aarzani@tntech.edu­)­ - 12:17 PM­

Q: ­thanks alot­

Priority: ­N/A­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­AZIZ UN NUR IBN SAIF­ (­aziz.saif@ierc.ie­)­ - 12:19 PM­

Q: ­Thanks Roger­

Priority: ­N/A­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Dhaval Dalal­ (­ddalal2@asu.edu­)­ - 12:22 PM­

Q: ­Some of these Q&A are very useful for future reference. Could you compile them into files and post them? Ideally, if you group them by type of questions, that would be even better, but tha tmay be too much to ask for. ­

Priority: ­N/A­‑

‑­Celso Rocha (internal)­­­­ - 12:29 PM­

A: ­Good comment. Those will be uploaded to the sourceforge repository, under "Training" folder. We did this for last year's training. https://sourceforge.net/p/electricdss/code/HEAD/tree/trunk/Training/Virtual-2021/Session1/­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Karen Montano-Martinez­ (­kmontano-martinez@epri.com­)­ - 12:24 PM­

Q: ­If we use evaluate to change an element parameter such as lenght (as Paulo is showing) , it changes the element parameter in the circuit or should we run the command oustide the evaluate mode?­

Priority: ­N/A­‑

‑­Celso Rocha (internal)­­­­ - 12:26 PM­

A: ­It changes as well. It's essentially the same thing as running the command in the editor (out of the evaluator). That's why you should be caregul when adding break point and watches that run OpenDSS commands. It may mess up with your simulation depending on what you are doing.­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­AlessioArdita­ (­aa19@alfred.edu­)­ - 12:25 PM­

Q: ­Can codeblocks open dss files? Or would it be better to use pycharm?­

Priority: ­N/A­‑

‑­Celso Rocha (internal)­­­­ - 12:28 PM­

A: ­If you are talking about opening .dss files, you can use any text editor. Now, if you are talking about controlling OpenDSS through a programming language, you can use the IDE of your preference. "Better" here is relative...­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Md Fazley Rafy­ (­mr00065@mix.wvu.edu­)­ - 12:25 PM­

Q: ­Can you let me know where can I find the codes Mr. Paulo is showing?­

Priority: ­N/A­‑

‑­Arin Nichols (internal)­­­­ - 12:40 PM­

A: ­The training resources will be available at this link: https://sourceforge.net/p/electricdss/code/HEAD/tree/trunk/Training/Virtual-2022/­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Laura­ (­laura.polanco@pnnl.gov­)­ - 12:26 PM­

Q: ­How to bring the data of the IEEE 123 test feeder from Python to one real-time simulator as for example Hypersim? ­

Priority: ­N/A­‑

‑­Roger Dugan (internal)­­­­ - 12:29 PM­

A: ­You'll have to write a program to convert from OpenDSS script to whatever Hypersim needs.­‑

‑­Roger Dugan (internal)­­­­ - 12:31 PM­

A: ­If Hypersim can talk to COM on Windows, you can make that part of your COM code.­‑

‑­Davis Montenegro Martinez (internal)­­­­ - 12:45 PM­

A: ­another way you can do that is to write something in between, like what we used to do 10 years ago with Opal-RT, using a UDP handler between OpenDSS and the Opal-Rt target will allow us to communicate both simulations and take them into RT­‑

‑­Davis Montenegro Martinez (internal)­­­­ - 12:46 PM­

A: ­I think they have the IEEE 123 in ephasor sim already­‑

‑­Davis Montenegro Martinez (internal)­­­­ - 12:48 PM­

A: ­Many other labs around the world do the same with DSS: https://www.nrel.gov/grid/advanced-distribution-management.html­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­yashar.kenarangui­ (­yashar.e.kenarangui@xcelenergy.com­)­ - 12:32 PM­

Q: ­What is the difference b/t "Source Distribution" and "Built Distribution" version of py-dss-interface? ­

Priority: ­N/A­‑

‑­Celso Rocha (internal)­­­­ - 12:35 PM­

A: ­Those are two different ways of getting a Python package. .tar version will also download the source code for you. For more information: https://packaging.python.org/en/latest/tutorials/installing-packages/­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Bruno Carmelito­ (­brunocarmelito@hotmail.com­)­ - 12:48 PM­

Q: ­The package is fantastic!­

Priority: ­N/A­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­Alaa Selim­ (­aes874@mmstate.edu­)­ - 12:54 PM­

Q: ­for simulating Islanded microgrids, I found that I need to keep Vsource in the code but the problem is that Vsource contributes with power beside DERs, which makes simulation not accurate for islanded­

Priority: ­N/A­‑

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

‑­AZIZ UN NUR IBN SAIF­ (­aziz.saif@ierc.ie­)­ - 12:56 PM­

Q: ­Thanks all­

Priority: ­N/A­‑