

DSM2 Learning Series: DSM2 Planning Study

Technical Setup Session Instructions

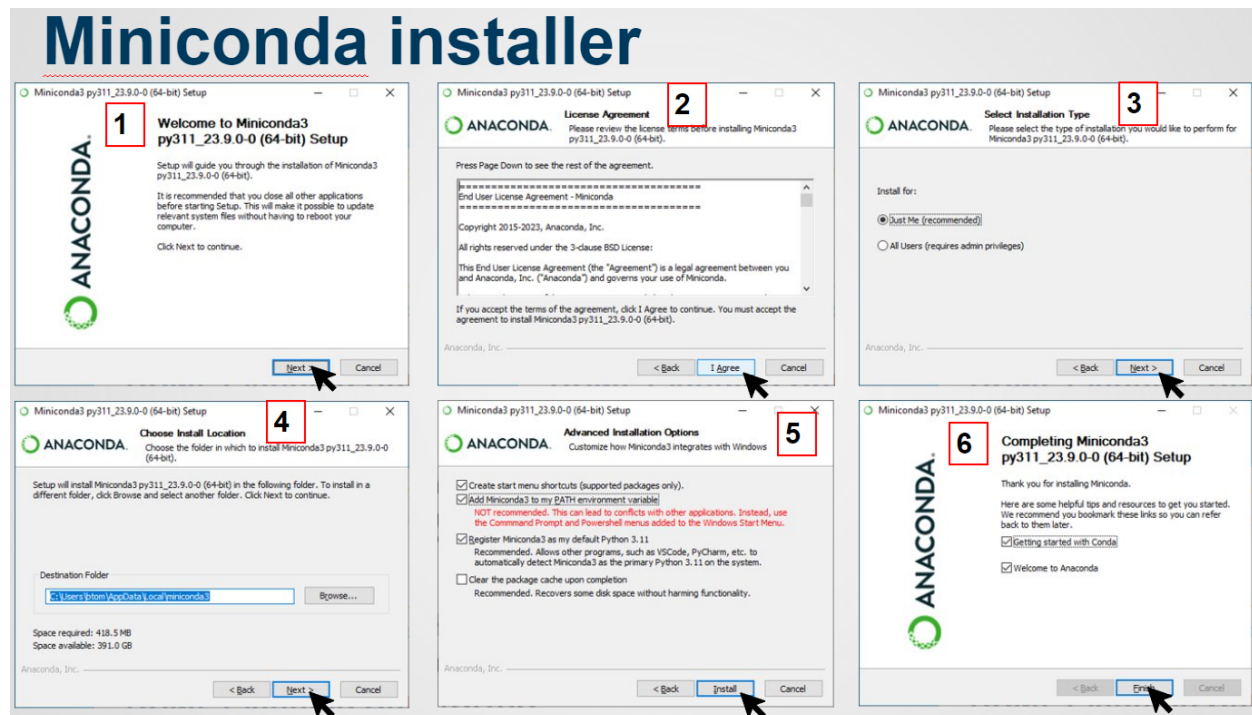
Prerequisites

Before attending the DSM2 Planning Study training, we suggest you review the videos of the DSM2 Quick Start Training. We also recommend that you have administrative privileges on the computer you will be using for the training, if possible. You will need to have the following basic computer skills to participate in the training:

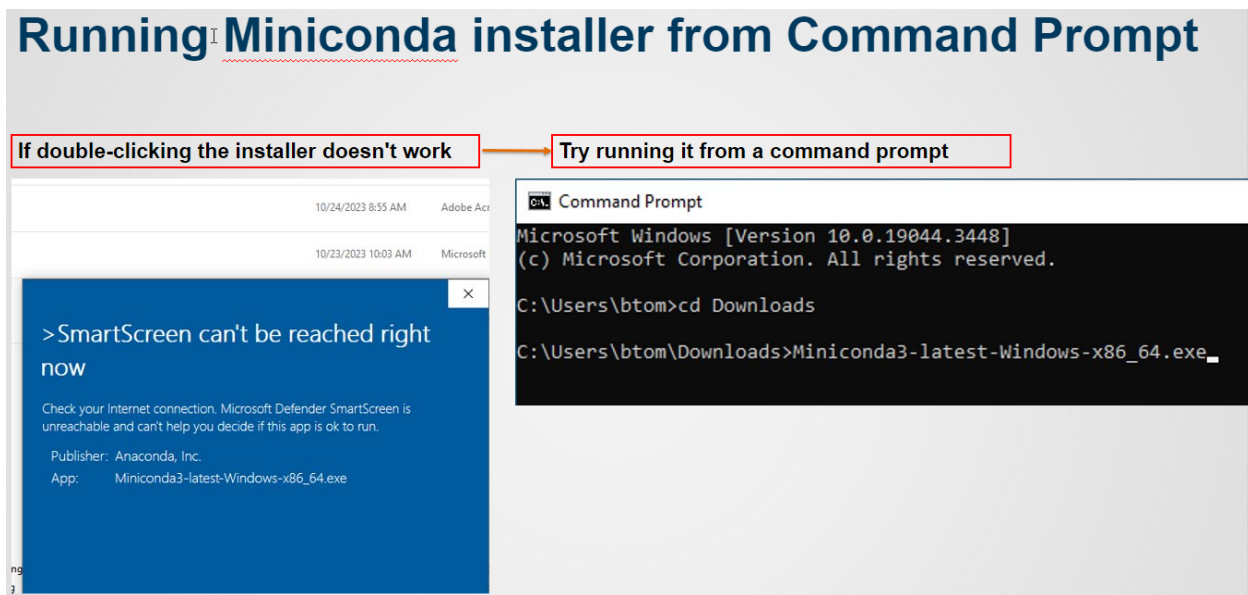
- Using Windows explorer to manage files and folders
- Entering commands at the command line, using the Windows Command Prompt
- Editing text files, using an editor of your choice

Installing Miniconda

Download and install Miniconda. Run the installer and use the default options with one change: check the box that says “Add Miniconda3 to my PATH environment variable”.



If Microsoft Defender prevents the installer from running, you can try running the installer from a Command Prompt window.



DSM2 Planning study Installation

- First, make sure you have at least 40GB free on one of your drives if you want to run the full 100 year studies, or at least 8 GB for the four year studies we will be running in the training session.
- The example DSM2 planning study is available here:
 - o <https://data.cnra.ca.gov/dataset/dsm2-planning-study-training-example-studies>
- Download the file and unzip it into a folder of your choice—we recommend d:\ or c:\.

Edit the prepro.bat file for each study

In your studies_planning folder, for both the baseline and alternative study folders, open the prepro.bat file in a text editor, and verify that the correct location of your miniconda installation is added to the system PATH variable:

Edit the prepro.bat file

1. Open prepro.bat in text editor

2. Make sure this line specifies the correct location of your Miniconda installation.

```
22 ::for 1st run if CU timeseries is not extended yet
23 REM call "%~dp0\..\scripts\extend_cd_flow.py %CONFIGFILE%"
24 REM call "%~dp0\..\scripts\prep_dcd_flow.py %CONFIGFILE%"
25 call "%~dp0\..\scripts\prep_gates.py %CONFIGFILE%"
26 call "%~dp0\..\scripts\prep_ec.py %CONFIGFILE%"
27 REM call "%~dp0\..\scripts\prep_doc.py %CONFIGFILE%"
28
29
30 setlocal
31 set PATH=c:\Windows\System32;c:\Windows;%USERPROFILE%\AppData\Local\Miniconda3
32
33 call "%~dp0\..\scripts\activate.bat"
34 call python "%~dp0\..\scripts\postpro_dss.py timeseries/2040alt.dss %%%%%15MIN/" time
35 endlocal
36
37 goto fin
38
39 :noconfig
40 echo %CONFIGFILE%
41 echo The configuration file must be specified on the command line
42 echo and be a valid file
```

Testing Jupyter notebook installation

- The notebook.bat file is located in the “postp” folder in your DSM2 example planning study installation.
- Follow the steps in the figures below to verify that you have successfully installed Miniconda and that your Jupyter notebook installation is working.

Testing Jupyter notebook starting Jupyter notebook application

1. Use "notebook.bat" to start jupyter notebook

2. Jupyter notebook opens in web browser

Please raise your hand in Teams when you have Jupyter notebook loaded into your browser

```
D:\DSM2_Planning_2023\delta\DSM2_v822plan\postp>notebook.bat
D:\DSM2_Planning_2023\delta\DSM2_v822plan\postp>set PATH=c:\Windows\System32;c:\Windows;%USERPROFILE%\AppData\Local\Miniconda3
```

Name	Last Modified	File size
info	12 days ago	
kernel	8 days ago	
workshop_notebooks	a day ago	
notebook.bat	4 months ago	503 B
readme.txt	14 days ago	237 B

Testing Jupyter notebook

Opening a notebook

1. Click "workshop_notebooks"

2. Open the file 2021_example_bnd.ipynb

Testing Jupyter notebook

notebook successfully opened

localhost:8888/notebooks/workshop_notebooks/2021_example_bnd.ipynb

File Edit View Insert Cell Kernel Widgets Help Snippets Trusted Python 3

Jupyter Notebook to analyze DSM2 Inputs

2023-9

This notebook is used to visualize boundary input data for DSM2 planning studies.

The input files are post-processd (daily/monthly) DSS files.

```
In [1]: %load_ext autoreload
%autoreload 2
executed in 58ms, finished 10:35:08 2023-10-20
```

```
In [2]: # Import modules
import pandas as pd
import numpy as np
# import plotly.offline as py
# py.init_notebook_mode(connected=True)
import pydelmod.utilities as pdmu
import pydelmod.nbplot as pdmn
```

This example notebook should not be run yet. Later we will create the data files it needs.