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| **American-Made Solar Forecasting Prize**  **Solar Forecast Arbiter Code Examples**  Below are two (Python) code examples for the Solar Forecast Arbiter Tool:    **Q1: How can I download reference data?**  **A1: You can download data via the SFA Dashboard or by using the SFA API. Here is an example using the API via the SFA’s Python package (solarforecastarbiter):**  ```  import pandas as pd  from solarforecastarbiter.io import api    # API authentication  token = api.request\_cli\_access\_token(“[your\_email@email.com](mailto:your_email@email.com)”, “your\_password”)  session = api.APISession(token)    # get data for a specific Observation  observation\_id = “9dfe124a-7e49-11e9-98c3-0a580a8003e9”  # GHI at Table Mountain Boulder CO  start = pd.Timestamp(“2022-01-01 12:00:00”)  end = pd.Timestamp(“2022-01-01 13:00:00”)  df = session.get\_observation\_values(observation\_id, start, end)  print(df.head())    # check the data    # NOTE: same process applies to get reference forecast data  # For more info, see [https://solarforecastarbiter-core.readthedocs.io/en/latest/api.html#sfa-api](https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsolarforecastarbiter-core.readthedocs.io%2Fen%2Flatest%2Fapi.html%23sfa-api&data=04%7C01%7Cemily.evans%40nrel.gov%7Cd752136eafe34ce01e6708d9df599487%7Ca0f29d7e28cd4f5484427885aee7c080%7C0%7C0%7C637786399277577541%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C2000&sdata=kr%2FRqs2t8KUD3gAZB1d%2FDhr8hsHjpecysIF9XKV6ie0%3D&reserved=0)  ```    **Q2: How can I get the UUID values?**  **A2: You can look up UUID values via the SFA Dashboard or by using the SFA API. Here is an example using the API via the SFA’s Python package (solarforecastarbiter):**    ```  from solarforecastarbiter.io import api    # API authentication  token = api.request\_cli\_access\_token(“[your\_email@email.com](mailto:your_email@email.com)”, “your\_password”)  session = api.APISession(token)    # get a list of all sites your account has access to  sites = session.list\_sites()    # iterate through sites and print the site names & UUID value  for site in sites:      print(site.name, site.site\_id)    # NOTE: same process applies to get UUID values for observations, forecasts, etc.  # For more info, see [https://solarforecastarbiter-core.readthedocs.io/en/latest/api.html#sfa-api](https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fsolarforecastarbiter-core.readthedocs.io%2Fen%2Flatest%2Fapi.html%23sfa-api&data=04%7C01%7Cemily.evans%40nrel.gov%7Cd752136eafe34ce01e6708d9df599487%7Ca0f29d7e28cd4f5484427885aee7c080%7C0%7C0%7C637786399277577541%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C2000&sdata=kr%2FRqs2t8KUD3gAZB1d%2FDhr8hsHjpecysIF9XKV6ie0%3D&reserved=0)  ``` |
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