Dark Sky for LabVIEW Toolkit

Overview

An overview of the Dark Sky Weather API is available here: https://darksky.net/dev/docs

In short, it allows you to obtain the current weather data anywhere in the world provided you have the longitude and latitude coordinates of the location. It also provides observed (in the past) or forecasted (in the future) weather data via separate calls which are included in this toolkit.

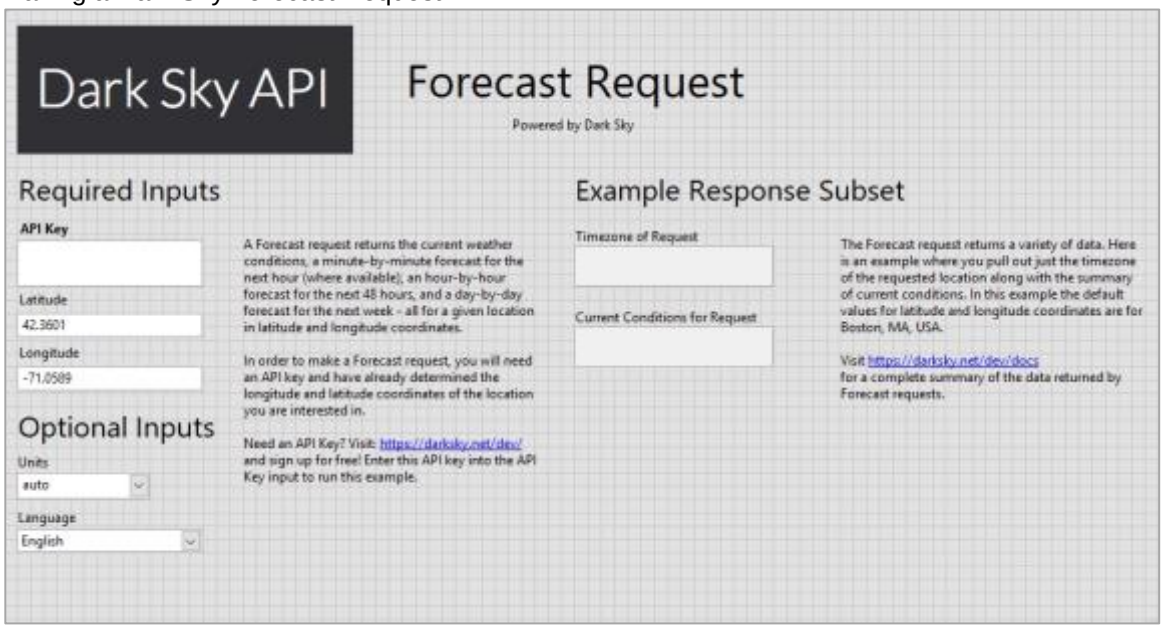
To use this toolkit, you will need to obtain a Dark Sky API key by signing up for a free at https://darksky.net/dev

The first 1000 calls per day are free, after which pricing is subject to Dark Sky's documentation and terms of service, available here: https://darksky.net/dev/docs

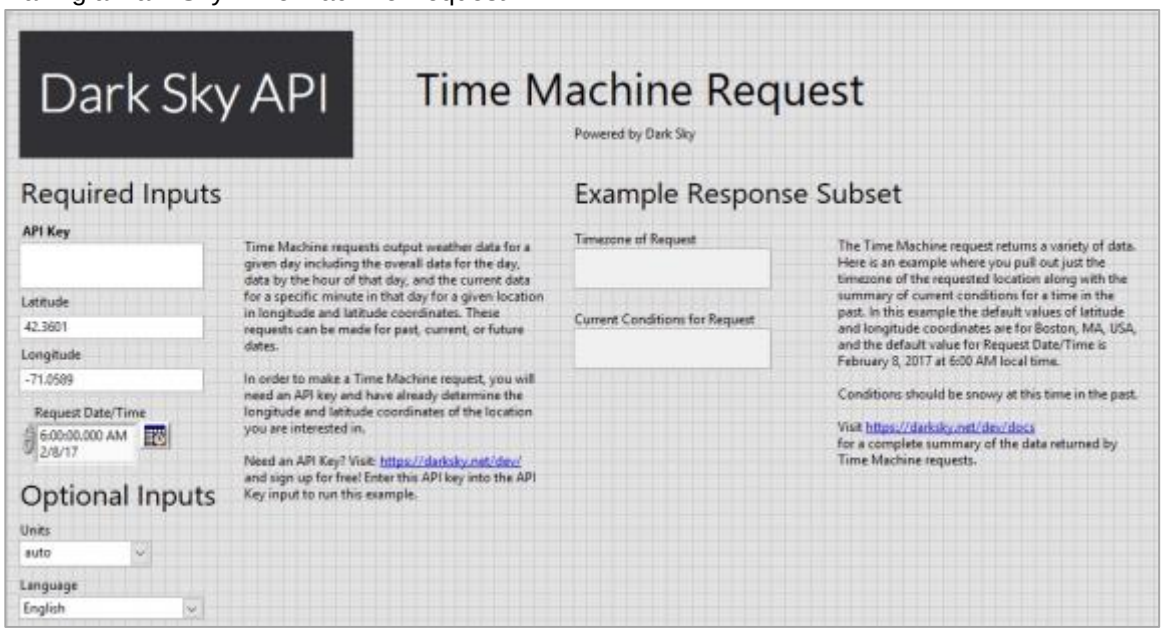
Examples

This toolkit ships with two examples. These VIs demonstrate how information is retrieved from the larger data set returned by a Dark Sky API request. The underlying VIs return a complete data set, from the Dark Sky API, and are recommended for use in applications.

1. Making a Dark Sky Forecast Request



2. Making a Dark Sky Time Machine Request



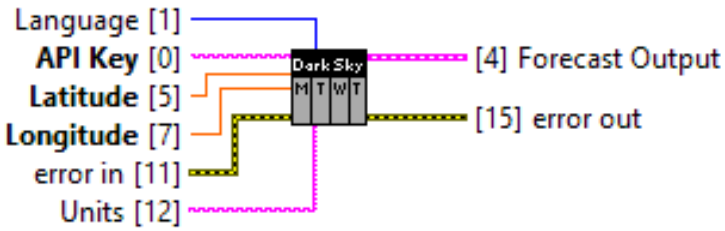
Both examples require an API key in order to run. Create a free account to obtain an API key, then enter the value into the 'API Key' input of the example VIs. The examples are already configured with longitude, latitude, and for the time machine request, a prior date/time.

Get an API key here: https://darksky.net/dev

Key VIs

The toolkit ships with two primary high-level VIs which are recommended for use in applications. These VIs install to, and are available from, the Functions >> Addons palette on a block diagram.

1. Dark Sky Forecast Request.vi

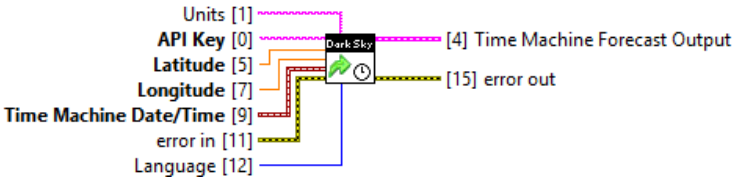


Makes a Forecast request to the DarkSky API and interprets the result. A Forecast request returns the current weather conditions, a minute-by-minute forecast for the next hour (where available), an hour-by-hour forecast for the next 48 hours, and a day-by-day forecast for the next week - all for a given location in latitude and longitude coordinates.

This API call requires an API key (available free from DarkSky) and latitude + longitude coordinates. Use this alongside another API, for example from Google, to convert city names into coordinates if needed.

More info at https://darksky.net/dev/docs/forecast

2. Dark Sky Time Machine Request.vi



Makes a Time Machine request to the DarkSky API and interprets the result. A Time Machine request returns the observed (in the past) or forecasted (in the future) hour-by-hour weather and daily weather conditions for a particular date. Results include the overall data for the day, data by the hour of that day, and the current data for the specific minute, of the request, in that day.

This API call requires an API key (available free from DarkSky), latitude + longitude coordinates, and a date/time which can be in the past, present, or future. Use this alongside another API, for example from Google, to convert city names into coordinates if needed.

More info at https://darksky.net/dev/docs/time-machine

Support

This toolkit is available for free and open source. While not formally supported, the source code, along with the ability to report issues and contribute via pull requests, are available at:

https://github.com/ni/labview-darkskyweather