plotly

Star 23,447

Dash Python **> *Dash 2.0 Migration***

Dash 2.0 Migration

Dash 2.0 introduced several new features, including Long Callbacks (now deprecated), **Flexible Callback Signatures**, and a simpler import statement.

Some updates to Dash change how existing features work, and you will need to update your apps for them to continue to function correctly.

Below is an outline of what updates you'll need to make to your apps, along with a short overview of new functionality you'll find in Dash 2.0.

Breaking Changes — Callbacks

If you are currently naming arguments to `@app.callback` with `state=`, you need to either also use `input` for the input arguments, or remove `state`.

Breaking Changes — Python 2 Support

As of version 2.0, Dash no longer supports Python 2.

Recommended Updates — Import Statements

Dash 2.0 includes a simpler way to import Dash as well as its dependencies and components.

If you update your apps to use Dash 2.0, we recommend you use this simpler import statement and replace references to `dash_html_components`, `dash_core_components`, and `dash_table` in your app imports.

Dash 1.x

```
import dash_html_components as html
import dash_core_components as dcc
import dash_table
```

Dash 2.0

```
from dash import Dash, callback, html, dcc, dash_table, Input, Output, State, MATCH, ALL
```

In the above example, `html`, `dcc`, and `dash_table` are imported along with `Dash`, `callback`, `Input`, `Output`, `State`, `MATCH`, and `ALL`.

Installs

The changes that allow simpler import of `dash_html_components`, `dash_core_components`, and `dash_table` also impact installs of these components. If you have these referenced in any `requirements.txt` files, you should update them.

New Features to Improve your Apps

As you update your apps, you may also want to consider trying out some of Dash 2.0's new features.

Long Callbacks

If you are currently using Dash 1.x and experiencing server timeouts with callbacks that run for a long time, you can use long callbacks to solve this issue. Long callbacks run callback logic in a separate process, meaning the app is still available while the callback runs.

> Note: Long callbacks were deprecated in Dash 2.6 and removed in Dash 3.0. See **Background Callbacks** for details on handling long-running callbacks.

Flexible Callback Signatures

In Dash 1.x callback arguments are positional, meaning arguments are passed to the callback function in the same order as they are in the callback decorator. Flexible callbacks allow for either positional or keyword arguments. See the **Flexible Callback Signatures chapter** for more details.

@dash.callback

The decorator `@dash.callback` is an alternative to using `@app.callback` in your apps. It is useful when building reusable components using **pattern-matching callbacks** and **All-in-One components**. To import and use it:

```
import dash

@dash.callback(...)
```

Similarly, `dash.clientside_callback` can be used as an alternative to `@app.clientside_callback`:

```
import dash

dash.clientside_callback(...)
```

Both can also be imported by importing from `dash` like this:

```
from dash import clientside_callback, callback
```

And then used like this:

```
@callback(...)
```

```
clientside_callback(...)
```

Limitations

- The global level `prevent_initial_callbacks via app = dash.Dash(__name__, prevent_initial_callbacks=True)` is not supported. It defaults to `False`. This is still configurable on a per-callback level.
- `@dash.callback` won't work in projects with multiple app declarations. (If you are using multiple app declarations to create a multi-page app, remember that this is not officially supported and consider changing to the recommended `dcc.Location` **multi-page app solution**).
- @dash.long_callback is not yet supported.

`orjson` Support

Dash 2.0 adds opt-in support for `orjson`. If **the `orjson` library** is installed, Dash will use it to serialize data to JSON, improving callback performance. See "Data Serialization" in the **Performance chapter** for more information.

Dash Python ***> Dash 2.0 Migration***

Products

Dash

Consulting and Training

Pricing

Enterprise Pricing

About Us

Careers

Resources

Blog

Support

Community Support

Graphing Documentation

Join our mailing list

Sign up to stay in the loop with all things Plotly — from Dash Club to product updates, webinars, and more!

SUBSCRIBE

Terms of Service Privacy Policy