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# st.pyplot

Display a matplotlib.pyplot figure.

Important

You must install `matplotlib` to use this command.

**Function signature[source]**

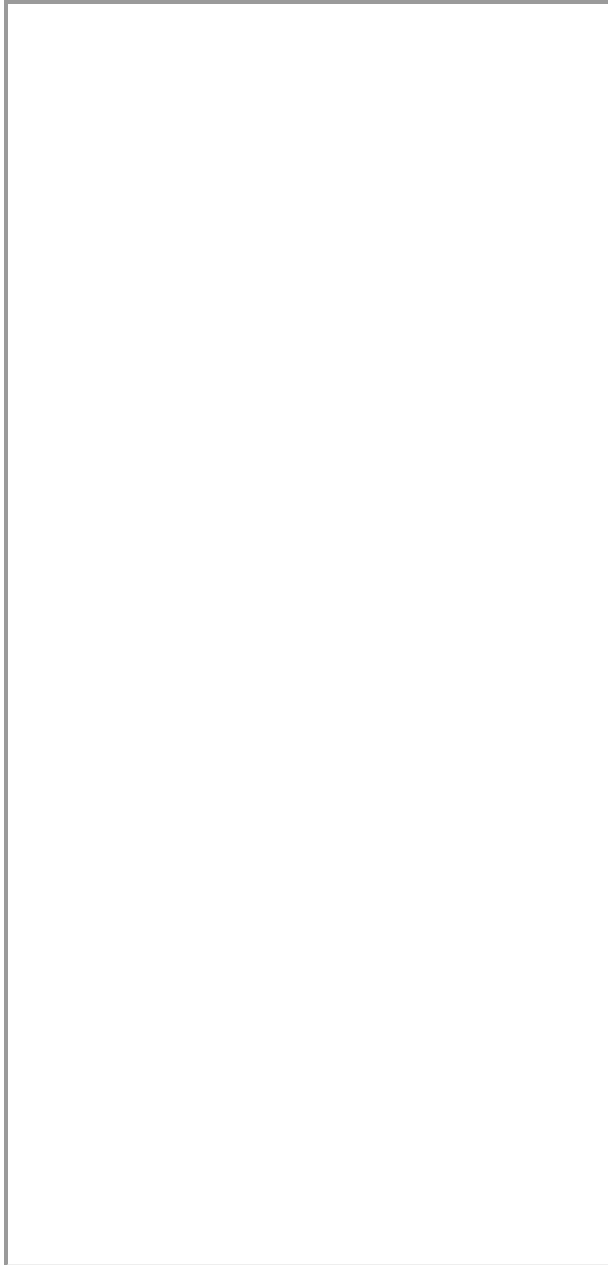**st.pyplot(fig=None, clear_figure=None, use_container_width=True, \*\*kwargs)**

Parameters

| | |
|---|---|
| fig (Matplotlib Figure) | The Matplotlib `Figure` object to render. See https://matplotlib.org/stable/gallery/index.html for examples.<br><br>Note<br><br>When this argument isn't specified, this function will render the global Matplotlib figure object. However, this feature is deprecated and will be removed in a later version. |
| clear_figure (bool) | If True, the figure will be cleared after being rendered. If False, the figure will not be cleared after being rendered. If left unspecified, we pick a default based on the value of `fig`.<br><br>• If `fig` is set, defaults to `False`.<br>• If `fig` is not set, defaults to `True`. This simulates Jupyter's approach to matplotlib rendering. |
| use_container_width (bool) | Whether to override the figure's native width with the width of the parent container. If `use_container_width` is `True` (default), Streamlit sets the width of the figure to match the width of the parent container. If `use_container_width` is `False`, Streamlit sets the width of the chart to fit its contents according to the plotting library, up to the width of the parent container. |
| \*\*kwargs (any) | Arguments to pass to Matplotlib's savefig function. |

**Example**

```
import streamlit as st
import matplotlib.pyplot as plt
import numpy as np

arr = np.random.normal(1, 1, size=100)
fig, ax = plt.subplots()
ax.hist(arr, bins=20)

st.pyplot(fig)
```

Matplotlib supports several types of "backends". If you're getting an error using Matplotlib with Streamlit, try setting your backend to "TkAgg":

```
echo "backend: TkAgg" >> ~/.matplotlib/matplotlibrc
```

For more information, see [https://matplotlib.org/faq/usage_faq.html](https://matplotlib.org/faq/usage_faq.html).

*priority_high*

**Warning**

Matplotlib [doesn't work well with threads](#). So if you're using Matplotlib you should wrap your code with locks as shown in the snippet below. This Matplotlib bug is more prominent when you deploy and share your app apps since you're more likely to get concurrent users then.

```
from matplotlib.backends.backend_agg import RendererAgg _lock = RendererAgg.lock with _lock: fig.title('This is a figure)') fig.plot([1,20,3,40]) st.pyplot(fig)
```

*forum*

# Still have questions?

Our [forums](#) are full of helpful information and Streamlit experts.

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