:mod:`tkinter.ttk` --- Tk themed widgets

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 1`); *backlink*
>
> Unknown interpreted text role "mod".

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 4`)
>
> Unknown directive type "module".
>
> ```
> .. module:: tkinter.ttk
>    :synopsis: Tk themed widget set
> ```

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 7`)
>
> Unknown directive type "sectionauthor".
>
> ```
> .. sectionauthor:: Guilherme Polo <ggpolo@gmail.com>
> ```

Source code: :source:`Lib/tkinter/ttk.py`

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 9`); *backlink*
>
> Unknown interpreted text role "source".

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 11`)
>
> Unknown directive type "index".
>
> ```
> .. index:: single: ttk
> ```

The :mod:`tkinter.ttk` module provides access to the Tk themed widget set, introduced in Tk 8.5. It provides additional benefits including anti-aliased font rendering under X11 and window transparency (requiring a composition window manager on X11).

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 15`); *backlink*
>
> Unknown interpreted text role "mod".

The basic idea for :mod:`tkinter.ttk` is to separate, to the extent possible, the code implementing a widget's behavior from the code implementing its appearance.

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 20`); *backlink*
>
> Unknown interpreted text role "mod".

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 25`)
>
> Unknown directive type "seealso".
>
> ```
> .. seealso::
>
>    `Tk Widget Styling Support <https://core.tcl.tk/tips/doc/trunk/tip/48.md>`_
>       A document introducing theming support for Tk
> ```

Using Ttk

To start using Ttk, import its module:

```
from tkinter import ttk
```

To override the basic Tk widgets, the import should follow the Tk import:

```
from tkinter import *
from tkinter.ttk import *
```

That code causes several :mod:`tkinter.ttk` widgets (:class:`Button`, :class:`Checkbutton`, :class:`Entry`, :class:`Frame`, :class:`Label`,

:class:`LabelFrame`, :class:`Menubutton`, :class:`PanedWindow`, :class:`Radiobutton`, :class:`Scale` and :class:`Scrollbar`) to automatically replace the Tk widgets.

This has the direct benefit of using the new widgets which gives a better look and feel across platforms; however, the replacement widgets are not completely compatible. The main difference is that widget options such as "fg", "bg" and others related to widget styling are no longer present in Ttk widgets. Instead, use the :class:`ttk.Style` class for improved styling effects.

Unknown directive type "seealso".

```
.. seealso::

    `Converting existing applications to use Tile widgets <http://tktable.sourceforge.net/tile/doc/converti
        A monograph (using Tcl terminology) about differences typically
        encountered when moving applications to use the new widgets.
```

Ttk Widgets

Ttk comes with 18 widgets, twelve of which already existed in tkinter: :class:`Button`, :class:`Checkbutton`, :class:`Entry`, :class:`Frame`, :class:`Label`, :class:`LabelFrame`, :class:`Menubutton`, :class:`PanedWindow`, :class:`Radiobutton`, :class:`Scale`, :class:`Scrollbar`, and :class:`Spinbox`. The other six are new: :class:`Combobox`, :class:`Notebook`, :class:`Progressbar`, :class:`Separator`, :class:`Sizegrip` and :class:`Treeview`. And all them are subclasses of :class:`Widget`.

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 67); *backlink*

Unknown interpreted text role "class".

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Unknown interpreted text role "class".

Using the Ttk widgets gives the application an improved look and feel. As discussed above, there are differences in how the styling is coded.

Tk code:

```
l1 = tkinter.Label(text="Test", fg="black", bg="white")
l2 = tkinter.Label(text="Test", fg="black", bg="white")
```

Ttk code:

```
style = ttk.Style()
style.configure("BW.TLabel", foreground="black", background="white")

l1 = ttk.Label(text="Test", style="BW.TLabel")
l2 = ttk.Label(text="Test", style="BW.TLabel")
```

For more information about TtkStyling, see the :class:`Style` class documentation.

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 92); *backlink*

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Widget

:class:`ttk.Widget` defines standard options and methods supported by Tk themed widgets and is not supposed to be directly instantiated.

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Standard Options

All the :mod:`ttk` Widgets accepts the following options:

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 105); *backlink*

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Option	Description
class	Specifies the window class. The class is used when querying the option database for the window's other options, to determine the default bindtags for the window, and to select the widget's default layout and style. This option is read-only, and may only be specified when the window is created.
cursor	Specifies the mouse cursor to be used for the widget. If set to the empty string (the default), the cursor is inherited for the parent widget.
takefocus	Determines whether the window accepts the focus during keyboard traversal. 0, 1 or an empty string is returned. If 0 is returned, it means that the window should be skipped entirely during keyboard traversal. If 1, it means that the window should receive the input focus as long as it is viewable. And an empty string means that the traversal scripts make the decision about whether or not to focus on the window.
style	May be used to specify a custom widget style.

Scrollable Widget Options

The following options are supported by widgets that are controlled by a scrollbar.

Option	Description
xscrollcommand	Used to communicate with horizontal scrollbars. When the view in the widget's window change, the widget will generate a Tcl command based on the scrollcommand. Usually this option consists of the method :meth:`Scrollbar.set` of some scrollbar. This will cause the scrollbar to be updated whenever the view in the window changes. **System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 153); *backlink*** Unknown interpreted text role "meth".
yscrollcommand	Used to communicate with vertical scrollbars. For some more information, see above.

Label Options

The following options are supported by labels, buttons and other button-like widgets.

Option	Description
text	Specifies a text string to be displayed inside the widget.
textvariable	Specifies a name whose value will be used in place of the text option resource.
underline	If set, specifies the index (0-based) of a character to underline in the text string. The underline character is used for mnemonic activation.
image	Specifies an image to display. This is a list of 1 or more elements. The first element is the default image name. The rest of the list if a sequence of statespec/value pairs as defined by :meth:`Style.map`, specifying different images to use when the widget is in a particular state or a combination of states. All images in the list should have the same size. **System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 183); *backlink*** Unknown interpreted text role "meth".

Option	Description
compound	Specifies how to display the image relative to the text, in the case both text and images options are present. Valid values are: • text: display text only • image: display image only • top, bottom, left, right: display image above, below, left of, or right of the text, respectively. • none: the default. display the image if present, otherwise the text.
width	If greater than zero, specifies how much space, in character widths, to allocate for the text label, if less than zero, specifies a minimum width. If zero or unspecified, the natural width of the text label is used.

Compatibility Options

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 211`)**
>
> Unknown directive type "tabularcolumns".
>
> ```
> .. tabularcolumns:: |l|L|
> ```

Option	Description
state	May be set to "normal" or "disabled" to control the "disabled" state bit. This is a write-only option: setting it changes the widget state, but the :meth:`Widget.state` method does not affect this option. > **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 217`); *backlink*** > Unknown interpreted text role "meth".

Widget States

The widget state is a bitmap of independent state flags.

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 227`)**
>
> Unknown directive type "tabularcolumns".
>
> ```
> .. tabularcolumns:: |l|L|
> ```

Flag	Description
active	The mouse cursor is over the widget and pressing a mouse button will cause some action to occur
disabled	Widget is disabled under program control
focus	Widget has keyboard focus
pressed	Widget is being pressed
selected	"On", "true", or "current" for things like Checkbuttons and radiobuttons
background	Windows and Mac have a notion of an "active" or foreground window. The *background* state is set for widgets in a background window, and cleared for those in the foreground window
readonly	Widget should not allow user modification
alternate	A widget-specific alternate display format
invalid	The widget's value is invalid

A state specification is a sequence of state names, optionally prefixed with an exclamation point indicating that the bit is off.

ttk.Widget

Besides the methods described below, the :class:`ttk.Widget` supports the methods :meth:`tkinter.Widget.cget` and :meth:`tkinter.Widget.configure`.

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 263`); *backlink***
>
> Unknown interpreted text role "class".

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 263`); *backlink***
>
> Unknown interpreted text role "meth".

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 263`); *backlink***

Unknown interpreted text role "meth".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, **line 268**)

Unknown directive type "method".

```
.. method:: identify(x, y)

   Returns the name of the element at position *x* *y*, or the empty string
   if the point does not lie within any element.

   *x* and *y* are pixel coordinates relative to the widget.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, **line 276**)

Unknown directive type "method".

```
.. method:: instate(statespec, callback=None, *args, **kw)

   Test the widget's state. If a callback is not specified, returns ``True``
   if the widget state matches *statespec* and ``False`` otherwise. If callback
   is specified then it is called with args if widget state matches
   *statespec*.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, **line 284**)

Unknown directive type "method".

```
.. method:: state(statespec=None)

   Modify or inquire widget state. If *statespec* is specified, sets the
   widget state according to it and return a new *statespec* indicating
   which flags were changed. If *statespec* is not specified, returns
   the currently-enabled state flags.
```

statespec will usually be a list or a tuple.

Combobox

The :class:`ttk.Combobox` widget combines a text field with a pop-down list of values. This widget is a subclass of :class:`Entry`.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, **line 297**); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, **line 297**); *backlink*

Unknown interpreted text role "class".

Besides the methods inherited from :class:`Widget`: :meth:`Widget.cget`, :meth:`Widget.configure`, :meth:`Widget.identify`, :meth:`Widget.instate` and :meth:`Widget.state`, and the following inherited from :class:`Entry` :meth:`Entry.bbox`, :meth:`Entry.delete`, :meth:`Entry.icursor`, :meth:`Entry.index`, :meth:`Entry.insert`, :meth:`Entry.selection`, :meth:`Entry.xview`, it has some other methods, described at :class:`ttk.Combobox`.

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, **line 300**); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, **line 300**); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, **line 300**); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, **line 300**); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 300`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 300`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 300`); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 300`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 300`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 300`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 300`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 300`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 300`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 300`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 300`); *backlink*

Unknown interpreted text role "class".

Options

This widget accepts the following specific options:

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 314`)

Unknown directive type "tabularcolumns".

```
.. tabularcolumns:: |l|L|
```

Option	Description
exportselection	Boolean value. If set, the widget selection is linked to the Window Manager selection (which can be returned by invoking Misc.selection_get, for example).
justify	Specifies how the text is aligned within the widget. One of "left", "center", or "right".
height	Specifies the height of the pop-down listbox, in rows.

Option	Description
postcommand	A script (possibly registered with Misc.register) that is called immediately before displaying the values. It may specify which values to display.
state	One of "normal", "readonly", or "disabled". In the "readonly" state, the value may not be edited directly, and the user can only selection of the values from the dropdown list. In the "normal" state, the text field is directly editable. In the "disabled" state, no interaction is possible.
textvariable	Specifies a name whose value is linked to the widget value. Whenever the value associated with that name changes, the widget value is updated, and vice versa. See :class:`tkinter.StringVar`. **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 340); *backlink*` Unknown interpreted text role "class".
values	Specifies the list of values to display in the drop-down listbox.
width	Specifies an integer value indicating the desired width of the entry window, in average-size characters of the widget's font.

Virtual events

The combobox widgets generates a **<<ComboboxSelected>>** virtual event when the user selects an element from the list of values.

ttk.Combobox

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 365`)

Unknown directive type "method".

```
.. method:: current(newindex=None)

   If *newindex* is specified, sets the combobox value to the element
   position *newindex*. Otherwise, returns the index of the current value or
   -1 if the current value is not in the values list.
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 372`)

Unknown directive type "method".

```
.. method:: get()

   Returns the current value of the combobox.
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 377`)

Unknown directive type "method".

```
.. method:: set(value)

   Sets the value of the combobox to *value*.
```

Spinbox

The :class:`ttk.Spinbox` widget is a :class:`ttk.Entry` enhanced with increment and decrement arrows. It can be used for numbers or lists of string values. This widget is a subclass of :class:`Entry`.

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 384); *backlink*`)

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 384); *backlink*`)

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 384); *backlink*`)

Unknown interpreted text role "class".

Besides the methods inherited from :class:`Widget`: :meth:`Widget.cget`, :meth:`Widget.configure`, :meth:`Widget.identify`, :meth:`Widget.instate` and :meth:`Widget.state`, and the following inherited from :class:`Entry`: :meth:`Entry.bbox`, :meth:`Entry.delete`, :meth:`Entry.icursor`, :meth:`Entry.index`, :meth:`Entry.insert`, :meth:`Entry.xview`, it has some other methods, described at :class:`ttk.Spinbox`.

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 388`); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 388`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 388`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 388`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 388`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 388`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 388`); *backlink*

Unknown interpreted text role "class".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 388`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 388`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 388`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 388`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 388`); *backlink*

Unknown interpreted text role "meth".

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 388`); *backlink*

Unknown interpreted text role "class".

Options

This widget accepts the following specific options:

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 400`)
>
> Unknown directive type "tabularcolumns".
>
> ```
>     .. tabularcolumns:: |l|L|
> ```

Option	Description
from	Float value. If set, this is the minimum value to which the decrement button will decrement. Must be spelled as `from_` when used as an argument, since `from` is a Python keyword.
to	Float value. If set, this is the maximum value to which the increment button will increment.
increment	Float value. Specifies the amount which the increment/decrement buttons change the value. Defaults to 1.0.
values	Sequence of string or float values. If specified, the increment/decrement buttons will cycle through the items in this sequence rather than incrementing or decrementing numbers.
wrap	Boolean value. If `True`, increment and decrement buttons will cycle from the `to` value to the `from` value or the `from` value to the `to` value, respectively.
format	String value. This specifies the format of numbers set by the increment/decrement buttons. It must be in the form "%W.Pf", where W is the padded width of the value, P is the precision, and '%' and 'f' are literal.
command	Python callable. Will be called with no arguments whenever either of the increment or decrement buttons are pressed.

Virtual events

The spinbox widget generates an **<<Increment>>** virtual event when the user presses <Up>, and a **<<Decrement>>** virtual event when the user presses <Down>.

ttk.Spinbox

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 453`)
>
> Unknown directive type "method".
>
> ```
>     .. method:: get()
>
>        Returns the current value of the spinbox.
> ```

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 458`)
>
> Unknown directive type "method".
>
> ```
>     .. method:: set(value)
>
>        Sets the value of the spinbox to *value*.
> ```

Notebook

Ttk Notebook widget manages a collection of windows and displays a single one at a time. Each child window is associated with a tab, which the user may select to change the currently-displayed window.

Options

This widget accepts the following specific options:

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 476`)
>
> Unknown directive type "tabularcolumns".
>
> ```
>     .. tabularcolumns:: |l|L|
> ```

Option	Description
height	If present and greater than zero, specifies the desired height of the pane area (not including internal padding or tabs). Otherwise, the maximum height of all panes is used.
padding	Specifies the amount of extra space to add around the outside of the notebook. The padding is a list up to four length specifications left top right bottom. If fewer than four elements are specified, bottom defaults to top, right defaults to left, and top defaults to left.

Option	Description
width	If present and greater than zero, specified the desired width of the pane area (not including internal padding). Otherwise, the maximum width of all panes is used.

Tab Options

There are also specific options for tabs:

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 502`)

Unknown directive type "tabularcolumns".

```
.. tabularcolumns:: |l|L|
```

Option	Description
state	Either "normal", "disabled" or "hidden". If "disabled", then the tab is not selectable. If "hidden", then the tab is not shown.
sticky	Specifies how the child window is positioned within the pane area. Value is a string containing zero or more of the characters "n", "s", "e" or "w". Each letter refers to a side (north, south, east or west) that the child window will stick to, as per the :meth:`grid` geometry manager. **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 512`); *backlink* Unknown interpreted text role "meth".
padding	Specifies the amount of extra space to add between the notebook and this pane. Syntax is the same as for the option padding used by this widget.
text	Specifies a text to be displayed in the tab.
image	Specifies an image to display in the tab. See the option image described in :class:`Widget`. **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 524`); *backlink* Unknown interpreted text role "class".
compound	Specifies how to display the image relative to the text, in the case both options text and image are present. See Label Options for legal values.
underline	Specifies the index (0-based) of a character to underline in the text string. The underlined character is used for mnemonic activation if :meth:`Notebook.enable_traversal` is called. **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 531`); *backlink* Unknown interpreted text role "meth".

Tab Identifiers

The tab_id present in several methods of :class:`ttk.Notebook` may take any of the following forms:

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 540`); *backlink*

Unknown interpreted text role "class".

- An integer between zero and the number of tabs
- The name of a child window
- A positional specification of the form "@x,y", which identifies the tab
- The literal string "current", which identifies the currently-selected tab
- The literal string "end", which returns the number of tabs (only valid for :meth:`Notebook.index`)

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 547`); *backlink*

Unknown interpreted text role "meth".

Virtual Events

This widget generates a <<**NotebookTabChanged**>> virtual event after a new tab is selected.

ttk.Notebook

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst**, line 563)**

Unknown directive type "method".

```
.. method:: add(child, **kw)

   Adds a new tab to the notebook.

   If window is currently managed by the notebook but hidden, it is
   restored to its previous position.

   See `Tab Options`_ for the list of available options.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst**, line 573)**

Unknown directive type "method".

```
.. method:: forget(tab_id)

   Removes the tab specified by *tab_id*, unmaps and unmanages the
   associated window.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst**, line 579)**

Unknown directive type "method".

```
.. method:: hide(tab_id)

   Hides the tab specified by *tab_id*.

   The tab will not be displayed, but the associated window remains
   managed by the notebook and its configuration remembered. Hidden tabs
   may be restored with the :meth:`add` command.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst**, line 588)**

Unknown directive type "method".

```
.. method:: identify(x, y)

   Returns the name of the tab element at position *x*, *y*, or the empty
   string if none.
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst**, line 594)**

Unknown directive type "method".

```
.. method:: index(tab_id)

   Returns the numeric index of the tab specified by *tab_id*, or the total
   number of tabs if *tab_id* is the string "end".
```

System Message: ERROR/3 (D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst**, line 600)**

Unknown directive type "method".

```
.. method:: insert(pos, child, **kw)

   Inserts a pane at the specified position.

   *pos* is either the string "end", an integer index, or the name of a
   managed child. If *child* is already managed by the notebook, moves it to
   the specified position.

   See `Tab Options`_ for the list of available options.
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 611)

Unknown directive type "method".

```
.. method:: select(tab_id=None)

   Selects the specified *tab_id*.

   The associated child window will be displayed, and the
   previously-selected window (if different) is unmapped. If *tab_id* is
   omitted, returns the widget name of the currently selected pane.
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 620)

Unknown directive type "method".

```
.. method:: tab(tab_id, option=None, **kw)

   Query or modify the options of the specific *tab_id*.

   If *kw* is not given, returns a dictionary of the tab option values. If
   *option* is specified, returns the value of that *option*. Otherwise,
   sets the options to the corresponding values.
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 629)

Unknown directive type "method".

```
.. method:: tabs()

   Returns a list of windows managed by the notebook.
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 634)

Unknown directive type "method".

```
.. method:: enable_traversal()

   Enable keyboard traversal for a toplevel window containing this notebook.

   This will extend the bindings for the toplevel window containing the
   notebook as follows:

   * :kbd:`Control-Tab`: selects the tab following the currently selected one.
   * :kbd:`Shift-Control-Tab`: selects the tab preceding the currently selected one.
   * :kbd:`Alt-K`: where *K* is the mnemonic (underlined) character of any tab, will
     select that tab.

   Multiple notebooks in a single toplevel may be enabled for traversal,
   including nested notebooks. However, notebook traversal only works
   properly if all panes have the notebook they are in as master.
```

Progressbar

The :class:`ttk.Progressbar` widget shows the status of a long-running operation. It can operate in two modes: 1) the determinate mode which shows the amount completed relative to the total amount of work to be done and 2) the indeterminate mode which provides an animated display to let the user know that work is progressing.

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 654); *backlink*

Unknown interpreted text role "class".

Options

This widget accepts the following specific options:

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 666)

Unknown directive type "tabularcolumns".

```
.. tabularcolumns:: |l|L|
```

Option	Description
orient	One of "horizontal" or "vertical". Specifies the orientation of the progress bar.
length	Specifies the length of the long axis of the progress bar (width if horizontal, height if vertical).
mode	One of "determinate" or "indeterminate".
maximum	A number specifying the maximum value. Defaults to 100.
value	The current value of the progress bar. In "determinate" mode, this represents the amount of work completed. In "indeterminate" mode, it is interpreted as modulo *maximum*; that is, the progress bar completes one "cycle" when its value increases by *maximum*.
variable	A name which is linked to the option value. If specified, the value of the progress bar is automatically set to the value of this name whenever the latter is modified.
phase	Read-only option. The widget periodically increments the value of this option whenever its value is greater than 0 and, in determinate mode, less than maximum. This option may be used by the current theme to provide additional animation effects.

ttk.Progressbar

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 703)

Unknown directive type "method".

```
.. method:: start(interval=None)

   Begin autoincrement mode: schedules a recurring timer event that calls
   :meth:`Progressbar.step` every *interval* milliseconds. If omitted,
   *interval* defaults to 50 milliseconds.
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 710)

Unknown directive type "method".

```
.. method:: step(amount=None)

   Increments the progress bar's value by *amount*.

   *amount* defaults to 1.0 if omitted.
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 717)

Unknown directive type "method".

```
.. method:: stop()

   Stop autoincrement mode: cancels any recurring timer event initiated by
   :meth:`Progressbar.start` for this progress bar.
```

Separator

The :class:`ttk.Separator` widget displays a horizontal or vertical separator bar.

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 726); *backlink*

Unknown interpreted text role "class".

It has no other methods besides the ones inherited from :class:`ttk.Widget`.

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 729); *backlink*

Unknown interpreted text role "class".

Options

This widget accepts the following specific option:

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 737)

Unknown directive type "tabularcolumns".

```
.. tabularcolumns:: |l|L|
```

Option	Description
orient	One of "horizontal" or "vertical". Specifies the orientation of the separator.

Sizegrip

The :class:`ttk.Sizegrip` widget (also known as a grow box) allows the user to resize the containing toplevel window by pressing and dragging the grip.

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 750);` *backlink*
>
> Unknown interpreted text role "class".

This widget has neither specific options nor specific methods, besides the ones inherited from :class:`ttk.Widget`.

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 753);` *backlink*
>
> Unknown interpreted text role "class".

Platform-specific notes

- On macOS, toplevel windows automatically include a built-in size grip by default. Adding a :class:`Sizegrip` is harmless, since the built-in grip will just mask the widget.

  > **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 760);` *backlink*
  >
  > Unknown interpreted text role "class".

Bugs

- If the containing toplevel's position was specified relative to the right or bottom of the screen (e.g. ....), the :class:`Sizegrip` widget will not resize the window.

  > **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 768);` *backlink*
  >
  > Unknown interpreted text role "class".

- This widget supports only "southeast" resizing.

Treeview

The :class:`ttk.Treeview` widget displays a hierarchical collection of items. Each item has a textual label, an optional image, and an optional list of data values. The data values are displayed in successive columns after the tree label.

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 777);` *backlink*
>
> Unknown interpreted text role "class".

The order in which data values are displayed may be controlled by setting the widget option `displaycolumns`. The tree widget can also display column headings. Columns may be accessed by number or symbolic names listed in the widget option columns. See Column Identifiers.

Each item is identified by a unique name. The widget will generate item IDs if they are not supplied by the caller. There is a distinguished root item, named `{}`. The root item itself is not displayed; its children appear at the top level of the hierarchy.

Each item also has a list of tags, which can be used to associate event bindings with individual items and control the appearance of the item.

The Treeview widget supports horizontal and vertical scrolling, according to the options described in Scrollable Widget Options and the methods :meth:`Treeview.xview` and :meth:`Treeview.yview`.

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 795);` *backlink*
>
> Unknown interpreted text role "meth".

> **System Message: ERROR/3** (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 795);` *backlink*
>
> Unknown interpreted text role "meth".

Options

This widget accepts the following specific options:

<div style="border:1px solid">

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 805`)

Unknown directive type "tabularcolumns".

```
.. tabularcolumns:: |l|p{0.7\linewidth}|
```

</div>

Option	Description
columns	A list of column identifiers, specifying the number of columns and their names.
displaycolumns	A list of column identifiers (either symbolic or integer indices) specifying which data columns are displayed and the order in which they appear, or the string "#all".
height	Specifies the number of rows which should be visible. Note: the requested width is determined from the sum of the column widths.
padding	Specifies the internal padding for the widget. The padding is a list of up to four length specifications.
selectmode	Controls how the built-in class bindings manage the selection. One of "extended", "browse" or "none". If set to "extended" (the default), multiple items may be selected. If "browse", only a single item will be selected at a time. If "none", the selection will not be changed. Note that the application code and tag bindings can set the selection however they wish, regardless of the value of this option.
show	A list containing zero or more of the following values, specifying which elements of the tree to display. • tree: display tree labels in column #0. • headings: display the heading row. The default is "tree headings", i.e., show all elements. **Note**: Column #0 always refers to the tree column, even if show="tree" is not specified.

Item Options

The following item options may be specified for items in the insert and item widget commands.

<div style="border:1px solid">

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 856`)

Unknown directive type "tabularcolumns".

```
.. tabularcolumns:: |l|L|
```

</div>

Option	Description
text	The textual label to display for the item.
image	A Tk Image, displayed to the left of the label.
values	The list of values associated with the item. Each item should have the same number of values as the widget option columns. If there are fewer values than columns, the remaining values are assumed empty. If there are more values than columns, the extra values are ignored.
open	`True`/`False` value indicating whether the item's children should be displayed or hidden.
tags	A list of tags associated with this item.

Tag Options

The following options may be specified on tags:

<div style="border:1px solid">

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 884`)

Unknown directive type "tabularcolumns".

```
.. tabularcolumns:: |l|L|
```

</div>

Option	Description
foreground	Specifies the text foreground color.
background	Specifies the cell or item background color.
font	Specifies the font to use when drawing text.
image	Specifies the item image, in case the item's image option is empty.

Column Identifiers

Column identifiers take any of the following forms:

- A symbolic name from the list of columns option.
- An integer n, specifying the nth data column.
- A string of the form #n, where n is an integer, specifying the nth display column.

Notes:

- Item's option values may be displayed in a different order than the order in which they are stored.
- Column #0 always refers to the tree column, even if show="tree" is not specified.

A data column number is an index into an item's option values list; a display column number is the column number in the tree where the values are displayed. Tree labels are displayed in column #0. If option displaycolumns is not set, then data column n is displayed in column #n+1. Again, **column #0 always refers to the tree column**.

Virtual Events

The Treeview widget generates the following virtual events.

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 929`)**
>
> Unknown directive type "tabularcolumns".
>
> ```
>     .. tabularcolumns:: |l|L|
> ```

Event	Description
<<TreeviewSelect>>	Generated whenever the selection changes.
<<TreeviewOpen>>	Generated just before settings the focus item to open=True.
<<TreeviewClose>>	Generated just after setting the focus item to open=False.

The :meth:`Treeview.focus` and :meth:`Treeview.selection` methods can be used to determine the affected item or items.

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 943`); *backlink***
>
> Unknown interpreted text role "meth".

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 943`); *backlink***
>
> Unknown interpreted text role "meth".

ttk.Treeview

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 952`)**
>
> Unknown directive type "method".
>
> ```
>     .. method:: bbox(item, column=None)
>
>         Returns the bounding box (relative to the treeview widget's window) of
>         the specified *item* in the form (x, y, width, height).
>
>         If *column* is specified, returns the bounding box of that cell. If the
>         *item* is not visible (i.e., if it is a descendant of a closed item or is
>         scrolled offscreen), returns an empty string.
> ```

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 962`)**
>
> Unknown directive type "method".
>
> ```
>     .. method:: get_children(item=None)
>
>         Returns the list of children belonging to *item*.
>
>         If *item* is not specified, returns root children.
> ```

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst, line 969`)**
>
> Unknown directive type "method".
>
> ```
>     .. method:: set_children(item, *newchildren)
>
>         Replaces *item*'s child with *newchildren*.
> ```

Children present in *item* that are not present in *newchildren* are
detached from the tree. No items in *newchildren* may be an ancestor of
item. Note that not specifying *newchildren* results in detaching
item's children.

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 979)

Unknown directive type "method".

```
.. method:: column(column, option=None, **kw)

   Query or modify the options for the specified *column*.

   If *kw* is not given, returns a dict of the column option values. If
   *option* is specified then the value for that *option* is returned.
   Otherwise, sets the options to the corresponding values.

   The valid options/values are:

   * id
     Returns the column name. This is a read-only option.
   * anchor: One of the standard Tk anchor values.
     Specifies how the text in this column should be aligned with respect
     to the cell.
   * minwidth: width
     The minimum width of the column in pixels. The treeview widget will
     not make the column any smaller than specified by this option when
     the widget is resized or the user drags a column.
   * stretch: ``True``/``False``
     Specifies whether the column's width should be adjusted when
     the widget is resized.
   * width: width
     The width of the column in pixels.

   To configure the tree column, call this with column = "#0"
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 1006)

Unknown directive type "method".

```
.. method:: delete(*items)

   Delete all specified *items* and all their descendants.

   The root item may not be deleted.
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 1013)

Unknown directive type "method".

```
.. method:: detach(*items)

   Unlinks all of the specified *items* from the tree.

   The items and all of their descendants are still present, and may be
   reinserted at another point in the tree, but will not be displayed.

   The root item may not be detached.
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 1023)

Unknown directive type "method".

```
.. method:: exists(item)

   Returns ``True`` if the specified *item* is present in the tree.
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 1028)

Unknown directive type "method".

```
.. method:: focus(item=None)

   If *item* is specified, sets the focus item to *item*. Otherwise, returns
   the current focus item, or '' if there is none.
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 1034)

Unknown directive type "method".

```
.. method:: heading(column, option=None, **kw)

   Query or modify the heading options for the specified *column*.

   If *kw* is not given, returns a dict of the heading option values. If
   *option* is specified then the value for that *option* is returned.
   Otherwise, sets the options to the corresponding values.

   The valid options/values are:

   * text: text
     The text to display in the column heading.
   * image: imageName
     Specifies an image to display to the right of the column heading.
   * anchor: anchor
     Specifies how the heading text should be aligned. One of the standard
     Tk anchor values.
   * command: callback
     A callback to be invoked when the heading label is pressed.

   To configure the tree column heading, call this with column = "#0".
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 1057)

Unknown directive type "method".

```
.. method:: identify(component, x, y)

   Returns a description of the specified *component* under the point given
   by *x* and *y*, or the empty string if no such *component* is present at
   that position.
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 1064)

Unknown directive type "method".

```
.. method:: identify_row(y)

   Returns the item ID of the item at position *y*.
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 1069)

Unknown directive type "method".

```
.. method:: identify_column(x)

   Returns the data column identifier of the cell at position *x*.

   The tree column has ID #0.
```

System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\cpython-main\Doc\library\[cpython-main][Doc][library]tkinter.ttk.rst`, line 1076)

Unknown directive type "method".

```
.. method:: identify_region(x, y)

   Returns one of:

   +-----------+--------------------------------------+
   | region    | meaning                              |
   +===========+======================================+
   | heading   | Tree heading area.                   |
   +-----------+--------------------------------------+
   | separator | Space between two columns headings.  |
   +-----------+--------------------------------------+
   | tree      | The tree area.                       |
   +-----------+--------------------------------------+
   | cell      | A data cell.                         |
   +-----------+--------------------------------------+
```

```
                                        Availability: Tk 8.6.
```

Unknown directive type "method".

```
    .. method:: identify_element(x, y)

        Returns the element at position *x*, *y*.

        Availability: Tk 8.6.
```

Unknown directive type "method".

```
    .. method:: index(item)

        Returns the integer index of *item* within its parent's list of children.
```

Unknown directive type "method".

```
    .. method:: insert(parent, index, iid=None, **kw)

        Creates a new item and returns the item identifier of the newly created
        item.

        *parent* is the item ID of the parent item, or the empty string to create
        a new top-level item. *index* is an integer, or the value "end",
        specifying where in the list of parent's children to insert the new item.
        If *index* is less than or equal to zero, the new node is inserted at
        the beginning; if *index* is greater than or equal to the current number
        of children, it is inserted at the end. If *iid* is specified, it is used
        as the item identifier; *iid* must not already exist in the tree.
        Otherwise, a new unique identifier is generated.

        See `Item Options`_ for the list of available points.
```

Unknown directive type "method".

```
    .. method:: item(item, option=None, **kw)

        Query or modify the options for the specified *item*.

        If no options are given, a dict with options/values for the item is
        returned.
        If *option* is specified then the value for that option is returned.
        Otherwise, sets the options to the corresponding values as given by *kw*.
```

Unknown directive type "method".

```
    .. method:: move(item, parent, index)

        Moves *item* to position *index* in *parent*'s list of children.

        It is illegal to move an item under one of its descendants. If *index* is
        less than or equal to zero, *item* is moved to the beginning; if greater
        than or equal to the number of children, it is moved to the end. If *item*
        was detached it is reattached.
```

Unknown directive type "method".

```
    .. method:: next(item)
```

Returns the identifier of *item*'s next sibling, or '' if *item* is the
        last child of its parent.

Unknown directive type "method".

```
.. method:: parent(item)

    Returns the ID of the parent of *item*, or '' if *item* is at the top
    level of the hierarchy.
```

Unknown directive type "method".

```
.. method:: prev(item)

    Returns the identifier of *item*'s previous sibling, or '' if *item* is
    the first child of its parent.
```

Unknown directive type "method".

```
.. method:: reattach(item, parent, index)

    An alias for :meth:`Treeview.move`.
```

Unknown directive type "method".

```
.. method:: see(item)

    Ensure that *item* is visible.

    Sets all of *item*'s ancestors open option to ``True``, and scrolls the
    widget if necessary so that *item* is within the visible portion of
    the tree.
```

Unknown directive type "method".

```
.. method:: selection()

    Returns a tuple of selected items.

    .. versionchanged:: 3.8
       ``selection()`` no longer takes arguments.  For changing the selection
       state use the following selection methods.
```

Unknown directive type "method".

```
.. method:: selection_set(*items)

    *items* becomes the new selection.

    .. versionchanged:: 3.6
       *items* can be passed as separate arguments, not just as a single tuple.
```

Unknown directive type "method".

```
.. method:: selection_add(*items)

   Add *items* to the selection.

   .. versionchanged:: 3.6
      *items* can be passed as separate arguments, not just as a single tuple.
```

Unknown directive type "method".

```
.. method:: selection_remove(*items)

   Remove *items* from the selection.

   .. versionchanged:: 3.6
      *items* can be passed as separate arguments, not just as a single tuple.
```

Unknown directive type "method".

```
.. method:: selection_toggle(*items)

   Toggle the selection state of each item in *items*.

   .. versionchanged:: 3.6
      *items* can be passed as separate arguments, not just as a single tuple.
```

Unknown directive type "method".

```
.. method:: set(item, column=None, value=None)

   With one argument, returns a dictionary of column/value pairs for the
   specified *item*. With two arguments, returns the current value of the
   specified *column*. With three arguments, sets the value of given
   *column* in given *item* to the specified *value*.
```

Unknown directive type "method".

```
.. method:: tag_bind(tagname, sequence=None, callback=None)

   Bind a callback for the given event *sequence* to the tag *tagname*.
   When an event is delivered to an item, the callbacks for each of the
   item's tags option are called.
```

Unknown directive type "method".

```
.. method:: tag_configure(tagname, option=None, **kw)

   Query or modify the options for the specified *tagname*.

   If *kw* is not given, returns a dict of the option settings for
   *tagname*. If *option* is specified, returns the value for that *option*
   for the specified *tagname*. Otherwise, sets the options to the
   corresponding values for the given *tagname*.
```

Unknown directive type "method".

```
.. method:: tag_has(tagname, item=None)
```

```
If *item* is specified, returns 1 or 0 depending on whether the specified
*item* has the given *tagname*. Otherwise, returns a list of all items
that have the specified tag.

Availability: Tk 8.6
```

```
.. method:: xview(*args)

    Query or modify horizontal position of the treeview.
```

```
.. method:: yview(*args)

    Query or modify vertical position of the treeview.
```

Ttk Styling

Each widget in :mod:`ttk` is assigned a style, which specifies the set of elements making up the widget and how they are arranged, along with dynamic and default settings for element options. By default the style name is the same as the widget's class name, but it may be overridden by the widget's style option. If you don't know the class name of a widget, use the method :meth:`Misc.winfo_class` (somewidget.winfo_class()).

```
.. seealso::

    `Tcl'2004 conference presentation <http://tktable.sourceforge.net/tile/tile-tcl2004.pdf>`_
        This document explains how the theme engine works
```

This class is used to manipulate the style database.

```
.. method:: configure(style, query_opt=None, **kw)

    Query or set the default value of the specified option(s) in *style*.

    Each key in *kw* is an option and each value is a string identifying
    the value for that option.

    For example, to change every default button to be a flat button with
    some padding and a different background color::

        from tkinter import ttk
        import tkinter

        root = tkinter.Tk()

        ttk.Style().configure("TButton", padding=6, relief="flat",
           background="#ccc")

        btn = ttk.Button(text="Sample")
        btn.pack()
```

```
    root.mainloop()
```

Unknown directive type "method".

```
.. method:: map(style, query_opt=None, **kw)

    Query or sets dynamic values of the specified option(s) in *style*.

    Each key in *kw* is an option and each value should be a list or a
    tuple (usually) containing statespecs grouped in tuples, lists, or
    some other preference. A statespec is a compound of one
    or more states and then a value.

    An example may make it more understandable::

        import tkinter
        from tkinter import ttk

        root = tkinter.Tk()

        style = ttk.Style()
        style.map("C.TButton",
            foreground=[('pressed', 'red'), ('active', 'blue')],
            background=[('pressed', '!disabled', 'black'), ('active', 'white')]
            )

        colored_btn = ttk.Button(text="Test", style="C.TButton").pack()

        root.mainloop()


    Note that the order of the (states, value) sequences for an option does
    matter, if the order is changed to ``[('active', 'blue'), ('pressed',
    'red')]`` in the foreground option, for example, the result would be a
    blue foreground when the widget were in active or pressed states.
```

Unknown directive type "method".

```
.. method:: lookup(style, option, state=None, default=None)

    Returns the value specified for *option* in *style*.

    If *state* is specified, it is expected to be a sequence of one or more
    states. If the *default* argument is set, it is used as a fallback value
    in case no specification for option is found.

    To check what font a Button uses by default::

        from tkinter import ttk

        print(ttk.Style().lookup("TButton", "font"))
```

Unknown directive type "method".

```
.. method:: layout(style, layoutspec=None)

    Define the widget layout for given *style*. If *layoutspec* is omitted,
    return the layout specification for given style.

    *layoutspec*, if specified, is expected to be a list or some other
    sequence type (excluding strings), where each item should be a tuple and
    the first item is the layout name and the second item should have the
    format described in `Layouts`_.

    To understand the format, see the following example (it is not
    intended to do anything useful)::

        from tkinter import ttk
        import tkinter

        root = tkinter.Tk()

        style = ttk.Style()
        style.layout("TMenubutton", [
            ("Menubutton.background", None),
            ("Menubutton.button", {"children":
                [("Menubutton.focus", {"children":
```

```
                    [("Menubutton.padding", {"children":
                        [("Menubutton.label", {"side": "left", "expand": 1})]
                    })]
                })]
            })),
        ])

        mbtn = ttk.Menubutton(text='Text')
        mbtn.pack()
        root.mainloop()
```

```
syntax used for :meth:`theme_settings`.
```

```
.. method:: theme_settings(themename, settings)

    Temporarily sets the current theme to *themename*, apply specified
    *settings* and then restore the previous theme.

    Each key in *settings* is a style and each value may contain the keys
    'configure', 'map', 'layout' and 'element create' and they are expected
    to have the same format as specified by the methods
    :meth:`Style.configure`, :meth:`Style.map`, :meth:`Style.layout` and
    :meth:`Style.element_create` respectively.

    As an example, let's change the Combobox for the default theme a bit::

        from tkinter import ttk
        import tkinter

        root = tkinter.Tk()

        style = ttk.Style()
        style.theme_settings("default", {
           "TCombobox": {
               "configure": {"padding": 5},
               "map": {
                   "background": [("active", "green2"),
                                  ("!disabled", "green4")],
                   "fieldbackground": [("!disabled", "green3")],
                   "foreground": [("focus", "OliveDrab1"),
                                  ("!disabled", "OliveDrab2")]
               }
           }
        })

        combo = ttk.Combobox().pack()

        root.mainloop()
```

```
.. method:: theme_names()

    Returns a list of all known themes.
```

```
.. method:: theme_use(themename=None)

    If *themename* is not given, returns the theme in use.  Otherwise, sets
    the current theme to *themename*, refreshes all widgets and emits a
    <<ThemeChanged>> event.
```

Layouts

A layout can be just None, if it takes no options, or a dict of options specifying how to arrange the element. The layout mechanism uses a simplified version of the pack geometry manager: given an initial cavity, each element is allocated a parcel. Valid options/values are:

- side: whichside
  Specifies which side of the cavity to place the element; one of top, right, bottom or left. If omitted, the element occupies the entire cavity.
- sticky: nswe
  Specifies where the element is placed inside its allocated parcel.
- unit: 0 or 1
  If set to 1, causes the element and all of its descendants to be treated as a single element for the purposes of :meth:`Widget.identify` et al. It's used for things like scrollbar thumbs with grips.

- children: [sublayout...]

  Specifies a list of elements to place inside the element. Each element is a tuple (or other sequence type) where the first item is the layout name, and the other is a Layout.