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Skeleton

Display a placeholder preview of your content before the data gets loaded to reduce load-time frustration.

Help us keep running

If you don't mind tech-related ads (no tracking or remarketing), and want to keep us running, please whitelist us in your blocker.

Thank you! ❤️

The data for your components might not be immediately available. You can improve the perceived responsiveness of the page by using skeletons. It feels like things are happening immediately, then the information is incrementally displayed on the screen (Cf. [Avoid The Spinner](#)).

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Usage



The component is designed to be used **directly in your components**. For instance:

```
{\n  item ? (\n    <img\n      style={{\n        width: 210,\n        height: 118,\n      }}\n      alt={item.title}\n      src={item.src}\n    />\n  ) : (\n    <Skeleton variant="rectangular" width={210} height={118} />\n  );\n}
```

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Variants



The component supports 4 shape variants:

- `text` (default): represents a single line of text (you can adjust the height via font size).

- `circular`, `rectangular`, and `rounded`: come with different border radius to let you take control of the size.

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JS

TS

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```
import Skeleton from '@mui/material/Skeleton';
import Stack from '@mui/material/Stack';

export default function Variants() {
  return (
    <Stack spacing={1}>
      {/* For variant="text", adjust the height via font-size */}
      <Skeleton variant="text" sx={{ fontSize: '1rem' }} />

      {/* For other variants, adjust the size with `width` and `height` */}
      <Skeleton variant="circular" width={40} height={40} />
      <Skeleton variant="rectangular" width={210} height={60} />
      <Skeleton variant="rounded" width={210} height={60} />
    </Stack>
  );
}
```

Animations



By default, the skeleton pulsates, but you can change the animation to a wave or disable it entirely.

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JS

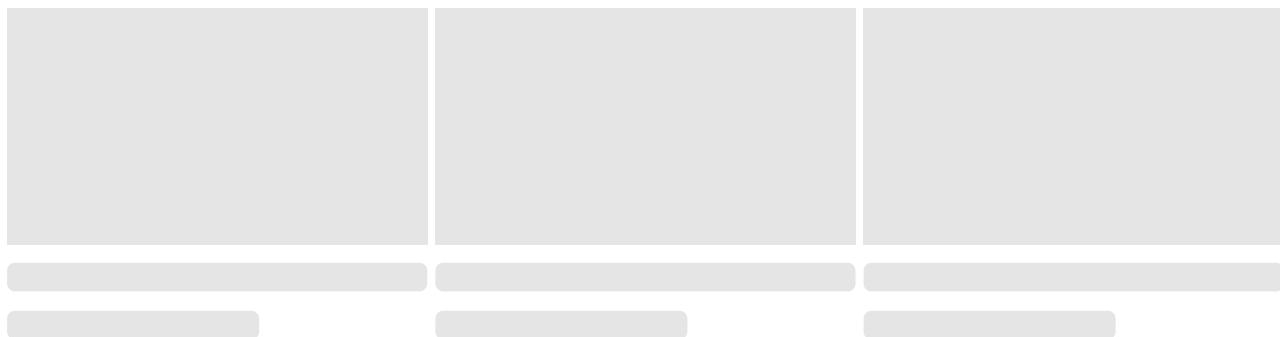
TS

[Collapse code](#)

```
import Box from '@mui/material/Box';
import Skeleton from '@mui/material/Skeleton';
```

```
export default function Animations() {
  return (
    <Box sx={{ width: 300 }}>
      <Skeleton />
      <Skeleton animation="wave" />
      <Skeleton animation={false} />
    </Box>
  );
}
```

Pulsate example



Don Diablo @ Tomorrowland
Main Stage 2019 | Official...
Don Diablo
396k views • a week ago



Queen - Greatest Hits
Queen Official
40M views • 3 years ago



Calvin Harris, Sam Smith -
Promises (Official Video)
Calvin Harris
130M views • 10 months ago

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```
import Grid from '@mui/material/Grid';
import Box from '@mui/material/Box';
import Typography from '@mui/material/Typography';
import Skeleton from '@mui/material/Skeleton';

const data = [
  {
    src: 'https://i.ytimg.com/vi/pLqipJNITIo/hqdefault.jpg?sqp=-oaymwEYCNIBHZIVfKriqkDCwgBFQAAiEIYAXA'
  }
]
```

```
title: 'Don Diablo @ Tomorrowland Main Stage 2019 | Official...',  
channel: 'Don Diablo',  
views: '396k views',  
createdAt: 'a week ago',  
},  
{  
src: 'https://i.ytimg.com/vi/_Uu12zY01ts/hqdefault.jpg?sqp=-oaymwEZCPYBEIoBSFXyq4qpAwsIARUAAhCGAF  
title: 'Queen - Greatest Hits',  
channel: 'Queen Official',  
views: '40M views',  
createdAt: '3 years ago',  
},  
{  
src: 'https://i.ytimg.com/vi/kkLk2XWMBf8/hqdefault.jpg?sqp=-oaymwEYCNIBEHZIVfKriqkDCwgBFQAAiEIYAXA  
title: 'Calvin Harris, Sam Smith - Promises (Official Video)',  
channel: 'Calvin Harris',  
views: '130M views',  
createdAt: '10 months ago',  
},  
];  
  
interface MediaProps {  
loading?: boolean;  
}  
  
function Media(props: MediaProps) {  
const { loading = false } = props;  
  
return (  
<Grid container wrap="nowrap">
```

Wave example





Ted
5 hours ago

⋮



Why First Minister of Scotland Nicola Sturgeon thinks GDP is the wrong measure of a country's success:

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```
import * as React from 'react';
import Card from '@mui/material/Card';
import CardHeader from '@mui/material/CardHeader';
import CardContent from '@mui/material/CardContent';
import CardMedia from '@mui/material/CardMedia';
import Avatar from '@mui/material/Avatar';
import Typography from '@mui/material/Typography';
import IconButton from '@mui/material/IconButton';
import MoreVertIcon from '@mui/icons-material/MoreVert';
import Skeleton from '@mui/material/Skeleton';

interface MediaProps {
  loading?: boolean;
}

function Media(props: MediaProps) {
  const { loading = false } = props;

  return (
    <Card sx={{ maxWidth: 345, m: 2 }}>
      <CardHeader
        avatar={(
          loading ? (
            <Skeleton animation="wave" variant="circular" width={40} height={40} />
          ) : (
            <Avatar
              alt="Ted talk"
              src="https://pbs.twimg.com/profile_images/877631054525472768/Xp5FAPD5_reasonably_small.j
            />
          )
        )
      }
      action={(
        loading ? null : (
          <IconButton aria-label="settings">
            <MoreVertIcon />
          </IconButton>
        )
      )}
    </Card>
  );
}
```

```
)  
}
```

Inferring dimensions

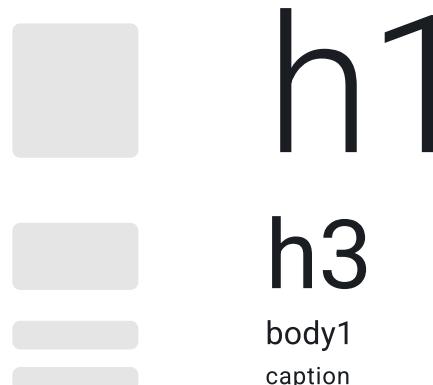
+

In addition to accepting `width` and `height` props, the component can also infer the dimensions.

It works well when it comes to typography as its height is set using `em` units.

```
<Typography variant="h1">{loading ? <Skeleton /> : 'h1'}</Typography>
```

Copy



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```
import Typography, { TypographyProps } from '@mui/material/Typography';
import Skeleton from '@mui/material/Skeleton';
import Grid from '@mui/material/Grid';

const variants = [
  'h1',
  'h3',
  'body1',
  'caption',
] as readonly TypographyProps['variant'][];

function TypographyDemo(props: { loading?: boolean }) {
  const { loading = false } = props;

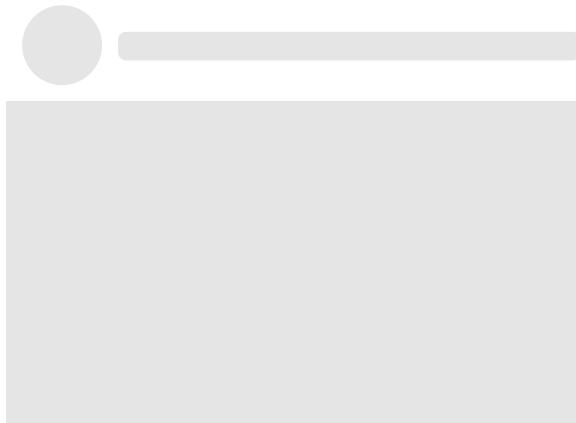
  return (
    <div>
      {variants.map((variant) => (
        <Typography component="div" key={variant} variant={variant}>
          {loading ? <Skeleton /> : variant}
        </Typography>
      ))}
    </div>
  );
}
```

```
export default function SkeletonTypography() {
  return (
    <Grid container spacing={8}>
      <Grid size="grow">
        <TypographyDemo loading />
      </Grid>
      <Grid size="grow">
        <TypographyDemo />
      </Grid>
    </Grid>
  );
}
```

But when it comes to other components, you may not want to repeat the width and height. In these instances, you can pass `children` and it will infer its width and height from them.

```
loading ? (
  <Skeleton variant="circular">
    <Avatar />
  </Skeleton>
) : (
  <Avatar src={data.avatar} />
);
```

Copy



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```
import { styled } from '@mui/material/styles';
import Box from '@mui/material/Box';
import Typography from '@mui/material/Typography';
import Avatar from '@mui/material/Avatar';
import Grid from '@mui/material/Grid';
import Skeleton from '@mui/material/Skeleton';

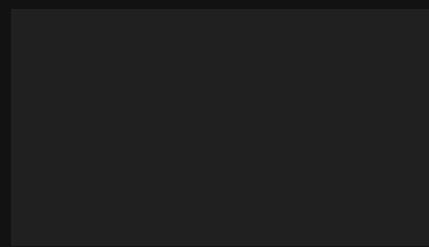
const Image = styled('img')({
  width: '100%',
```

```
});  
  
function SkeletonChildrenDemo(props: { loading?: boolean }) {  
  const { loading = false } = props;  
  
  return (  
    <div>  
      <Box sx={{ display: 'flex', alignItems: 'center' }}>  
        <Box sx={{ margin: 1 }}>  
          {loading ? (  
            <Skeleton variant="circular">  
              <Avatar />  
            </Skeleton>  
          ) : (  
            <Avatar src="https://pbs.twimg.com/profile_images/877631054525472768/Xp5FAPD5_reasonably_s  
          )}  
        </Box>  
        <Box sx={{ width: '100%' }}>  
          {loading ? (  
            <Skeleton width="100%">  
              <Typography>. </Typography>  
            </Skeleton>  
          ) : (  
            <Typography>Ted</Typography>  
          )}  
        </Box>  
      </Box>  
      {loading ? (  
        <Skeleton variant="rectangular" width="100%">
```

Color



The color of the component can be customized by changing its `background-color` CSS property. This is especially useful when on a black background (as the skeleton will otherwise be invisible).



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Collapse code

```
import Skeleton from '@mui/material/Skeleton';  
import Box from '@mui/material/Box';
```

```
export default function SkeletonColor() {
  return (
    <Box
      sx={{
        bgcolor: '#121212',
        p: 8,
        width: '100%',
        display: 'flex',
        justifyContent: 'center',
      }}
    >
      <Skeleton
        sx={{ bgcolor: 'grey.900' }}
        variant="rectangular"
        width={210}
        height={118}
      />
    </Box>
  );
}
```

Accessibility

Skeleton screens provide an alternative to the traditional spinner method. Rather than showing an abstract widget, skeleton screens create anticipation of what is to come and reduce cognitive load.

The background color of the skeleton uses the least amount of luminance to be visible in good conditions (good ambient light, good screen, no visual impairments).

ARIA

None.

Keyboard

The skeleton is not focusable.

API

See the documentation below for a complete reference to all of the props and classes available to the components mentioned here.

- [`<Skeleton />`](#)

[Progress](#)[Snackbar](#) >