

# textOutput()

Creates a screen reader-accessible description of shapes on the canvas.

`textOutput()` adds a general description, list of shapes, and table of shapes to the web page. The general description includes the canvas size, canvas color, and number of shapes. For example, `Your output is a, 100 by 100 pixels, gray canvas containing the following 2 shapes:`.

A list of shapes follows the general description. The list describes the color, location, and area of each shape. For example, `a red circle at middle covering 3% of the canvas`. Each shape can be selected to get more details.

`textOutput()` uses its table of shapes as a list. The table describes the shape, color, location, coordinates and area. For example, `red circle location = middle area = 3%`. This is different from `gridOutput()`, which uses its table as a grid.

The `display` parameter is optional. It determines how the description is displayed. If `LABEL` is passed, as in `textOutput(LABEL)`, the description will be visible in a div element next to the canvas. Using `LABEL` creates unhelpful duplicates for screen readers. Only use `LABEL` during development. If `FALLBACK` is passed, as in `textOutput(FALLBACK)`, the description will only be visible to screen readers. This is the default mode.

Read [Writing accessible canvas descriptions](#) to learn more about making sketches accessible.

`textOutput()` generates descriptions in English only. Text drawn with `text()` is not described. Shapes created with `beginShape()` are not described. WEBGL mode and 3D shapes are not supported.

Use [describe\(\)](#) and [describeElement\(\)](#) for more control over canvas descriptions.

## Examples

```
function setup() {  
  // Add the text description.  
  textOutput();  
  
  // Draw a couple of shapes.  
  background(200);  
  fill(255, 0, 0);  
  circle(20, 20, 20);  
  fill(0, 0, 255);  
  square(50, 50, 50);  
  
  // Add a general description of the canvas.  
  describe('A red circle and a blue square on a gray background.');
```

```
function setup() {  
  // Add the text description and  
  // display it for debugging.  
  textOutput(LABEL);  
  
  // Draw a couple of shapes.  
  background(200);  
  fill(255, 0, 0);  
  circle(20, 20, 20);  
  fill(0, 0, 255);  
  square(50, 50, 50);  
  
  // Add a general description of the canvas.  
  describe('A red circle and a blue square on a gray background.');
```

```
function setup() {  
  createCanvas(100, 100);  
}  
  
function draw() {  
  // Add the text description.  
  textOutput();  
  
  // Draw a moving circle.  
  background(200);  
  let x = frameCount * 0.1;  
  fill(255, 0, 0);  
  circle(x, 20, 20);  
  fill(0, 0, 255);  
  square(50, 50, 50);  
  
  // Add a general description of the canvas.  
  describe('A red circle moves from left to right above a blue square.');
```

```
function setup() {  
  createCanvas(100, 100);  
}  
  
function draw() {  
  // Add the text description and  
  // display it for debugging.  
  textOutput(LABEL);  
  
  // Draw a moving circle.  
  background(200);  
  let x = frameCount * 0.1;  
  fill(255, 0, 0);  
  circle(x, 20, 20);  
  fill(0, 0, 255);  
  square(50, 50, 50);  
  
  // Add a general description of the canvas.  
  describe('A red circle moves from left to right above a blue square.');
```

## Syntax

`textOutput([display])`

## Parameters

`display`      Constant: either FALLBACK or LABEL.

This page is generated from the comments in [src/accessibility/outputs.js](#). Please feel free to edit it and submit a pull request!

## Related References

<b>cursor</b> Changes the cursor's appearance.	<b>deltaTime</b> A Number variable that tracks the number of milliseconds it took to draw the last frame.	<b>describe</b> Creates a screen reader-accessible description of the canvas.	<b>describeElement</b> Creates a screen reader-accessible description of elements in the canvas.
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