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Target Product Attribute:

Range of Acceptability

0.5	1.5	2.5	3.5	4.5	5.5
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Depending on the detail of the sample, use a separate chart with bigger pictures to show the details better.

Instructions

Take a sample of the product from the production line and force-fit it in-between two visual samples above. Write down the result of the test as a whole number (0,1,2,3,4,5,6) on the Finished Product Specification Sheet and/or the appropriate Control Chart.

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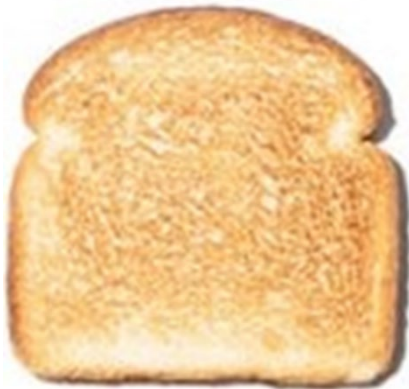
Directions for Creating a Visual Product Specification

When developing a Finished Product Specification for a food product, when it comes to the appearance of the product, most Brand Owners will write down ‘To Match Standard’ as the specification. Since food products tend to vary in appearance from batch to batch from differences in raw materials, processing and storage conditions, a single point specification is nearly impossible to meet for every batch. The question then becomes, how can you prepare a visual specification for a product that encompasses these variations? This Visual Specification Template is the solution.

Follow the steps below to set-up a Visual Specification that Contract Manufacturers will appreciate.

Step 1. Establish a Target Product Visual

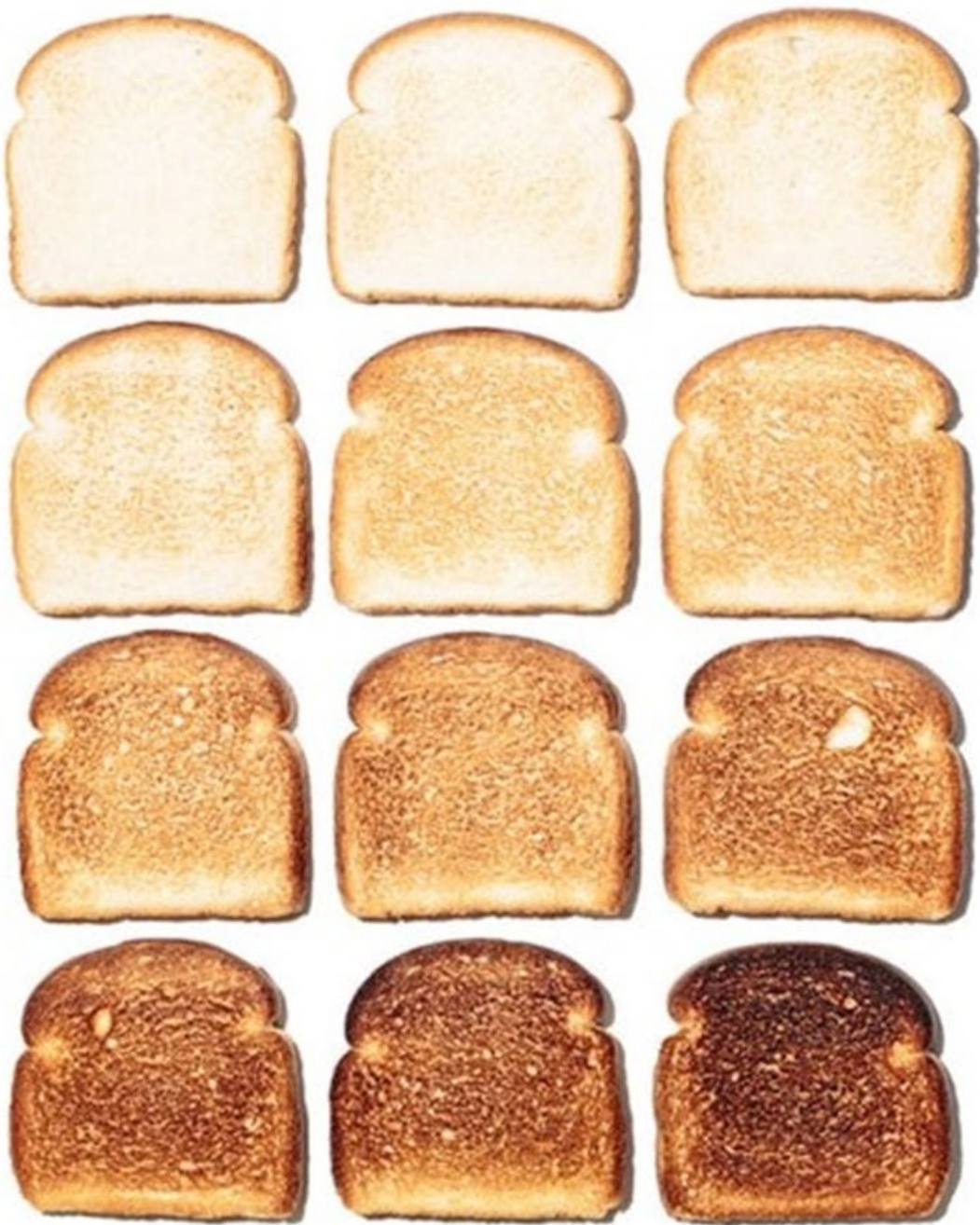
Before you can set a range of visual standards for your product, you have to know what the Target Product looks like. The definition of this would be if everything in the process was run perfectly, this is what the product would look like. We will use toast as a product example. After trying many variations of toast levels and bread types, a Brand Owner took this picture of their target toast product:



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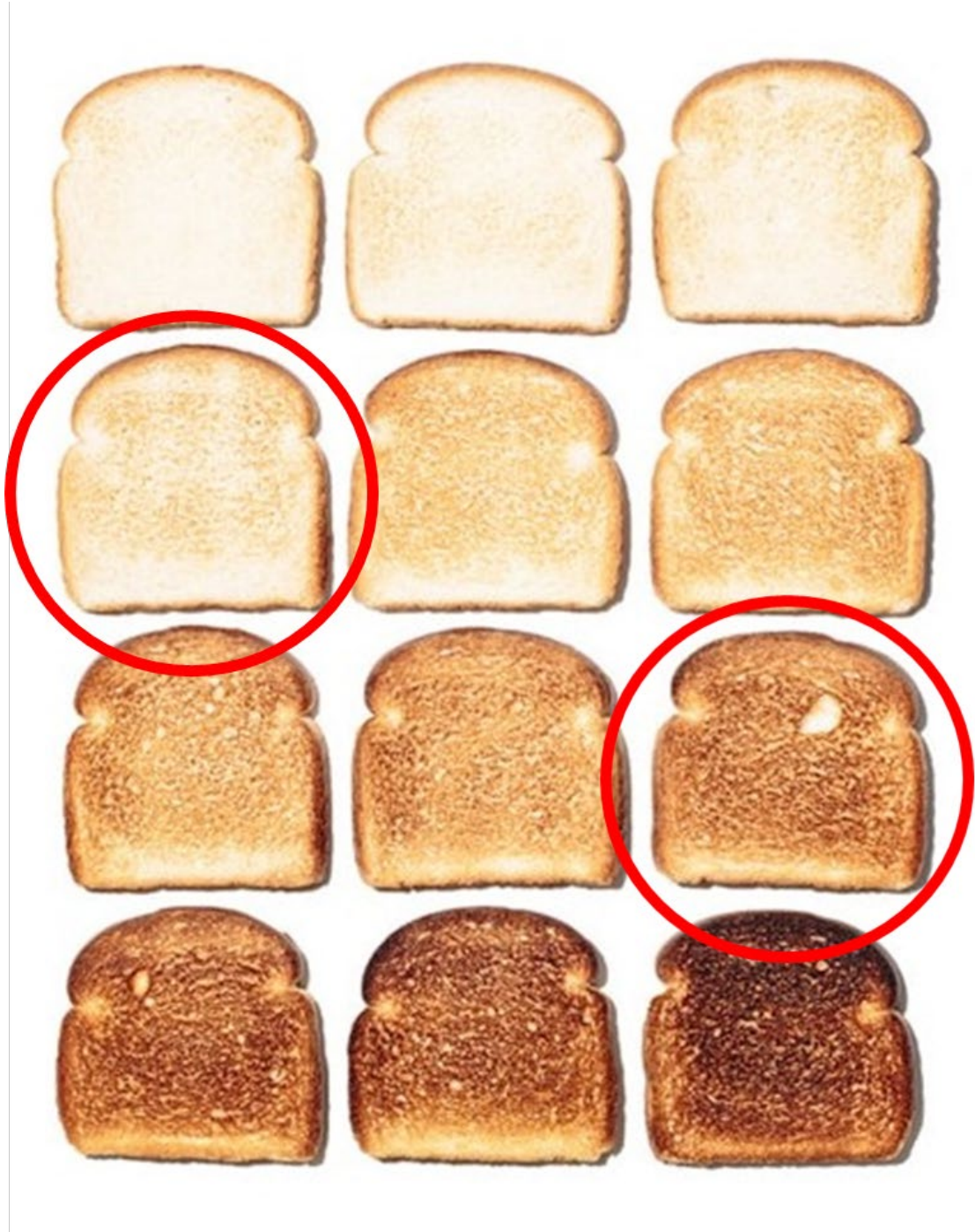
Step 2. Determine the endpoints for acceptability

Once you have a target visual set, the next step is to determine how far away from that target your product can go, from an appearance standpoint, before it is no longer acceptable. In the toast example, the Brand Owner toasted bread at various levels and used small consumer testing to determine at what point the toast is too light or too dark to be acceptable. The Brand Owner came up with this sample of toast levels:



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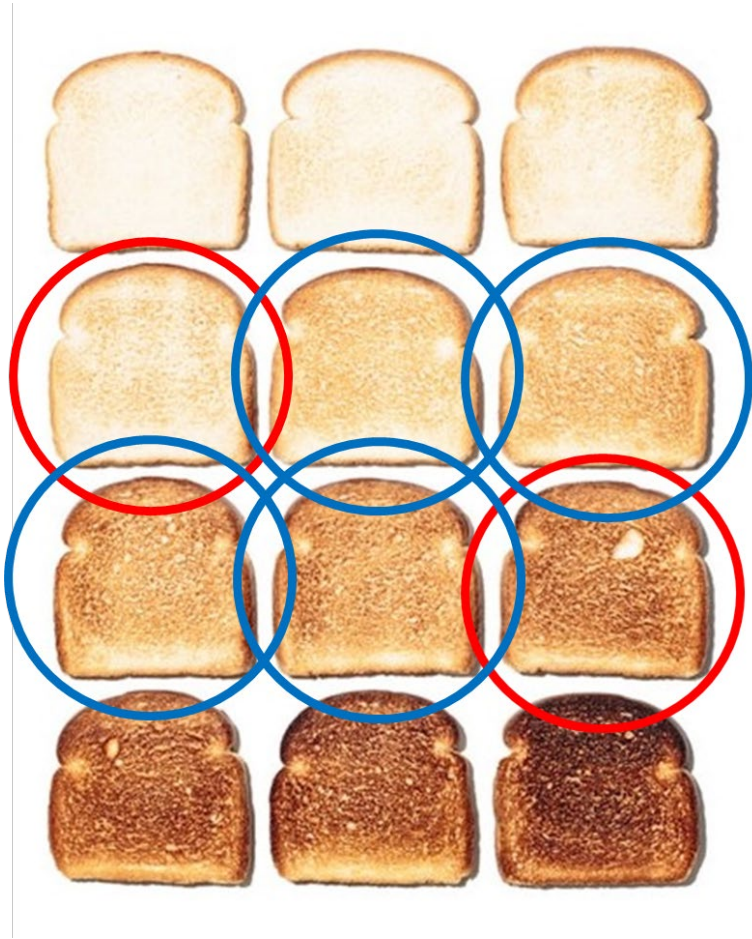
Based on their consumer testing, the Brand Owner decided the two endpoints of acceptability were the following samples:



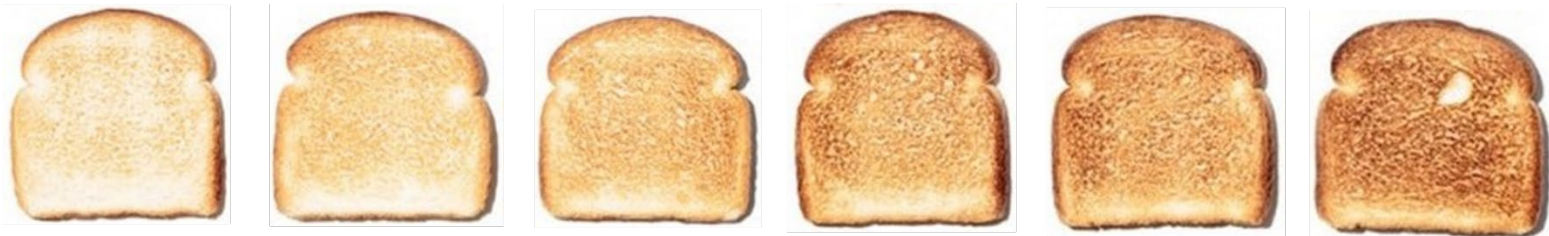
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Step 3. Fill in four samples between the two endpoints of acceptability

Once the endpoints of acceptability have been established, the Brand Owner needs to now create four visual samples that fit equally between their two endpoints. Since the Brand Owner already had an array of samples to choose from, they chose the four between the two endpoint pictures:



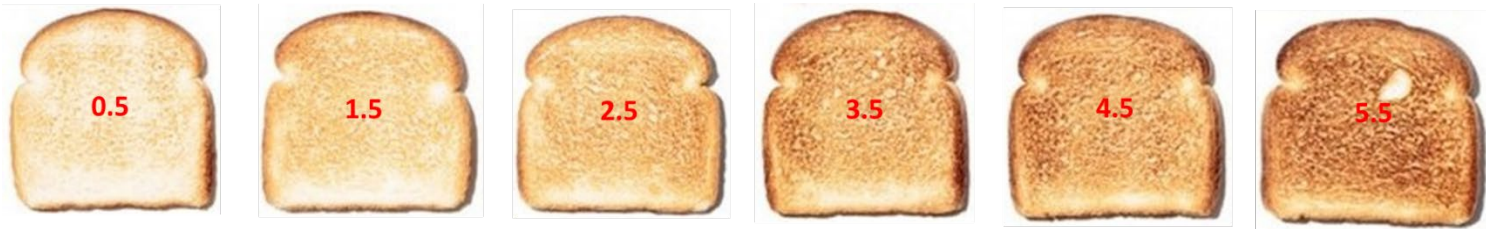
Laying all six toast pictures side-by-side we then get a continuum of visual samples, all acceptable:



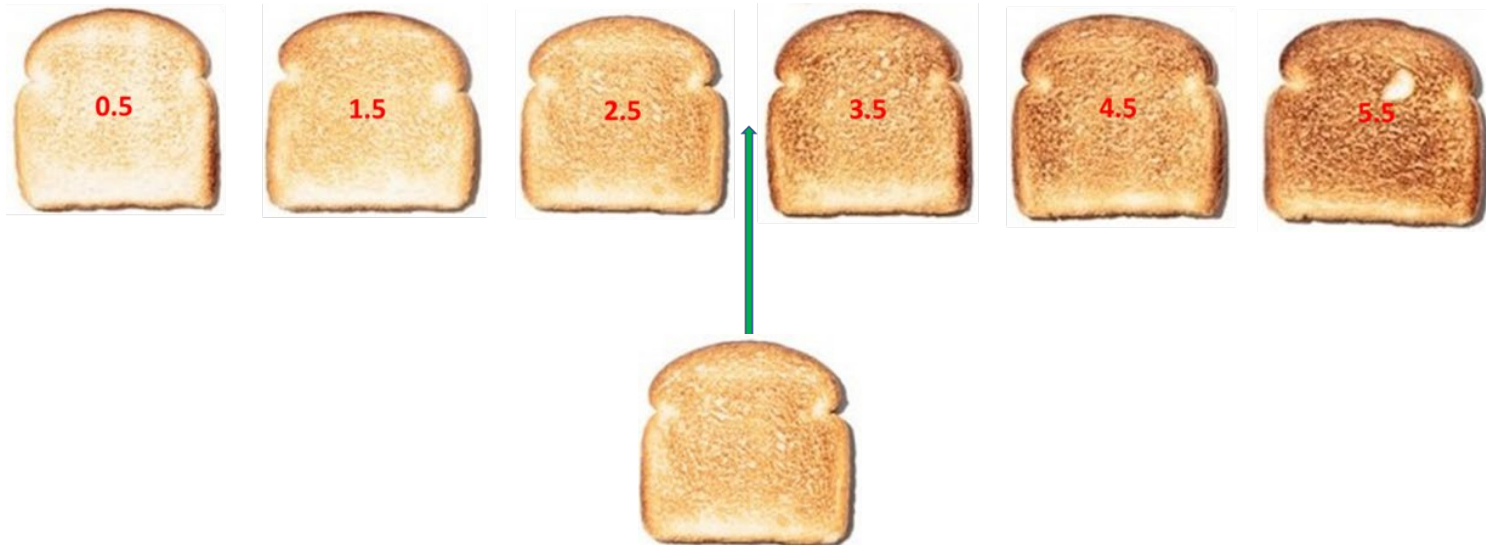
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Step 4. Add numerical values to the six sample pictures

Now that you have your six pictures selected, add the following numbers to each sample, 0.5, 1.5, 2.5, 3.5, 4.5, and 5.5 in the following manner:

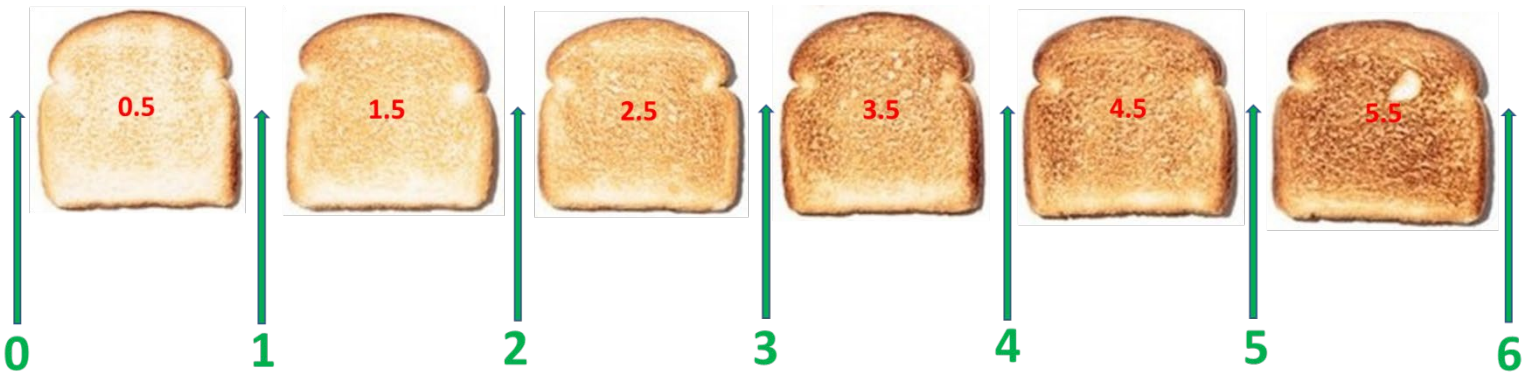


At this point you now have a complete Visual Specification for the toast product. All that is left to do is take a sample off the production line and compare it to the above array. The goal is to ‘force-fit’ the test sample in between the two pictures in the array that most closely resemble the sample. If we look back at the Target Product picture from Step One and compare it in the array:



By fitting the test sample in between two samples in the array, we can assign a score to the test sample. In the example above, we would score the sample a ‘3’, which is the correct score for a Target Product.

Following the same process, fitting a test sample between any two pictures in the array will yield a whole number result:



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Step 5. Analysis of the test results

Since there are six possible outcomes for this visual test, and we know all six pictures represent acceptable product, we can set a numerical specification for a visual standard as well as where the Contract Manufacturer needs to take corrective action as follows:

3 = Target Product, no corrective action required

2,4 = Within Control Limits, monitor but no corrective action required

1,5 = Within Specification, but corrective action required

0,6 = Out of Specification, product not salable as is, corrective action required

The term 'Corrective Action Required' refers to a process adjustment the line operator must make to either bring the product back into specification or, if it scored 1 or 5, back under process control.

The next Template document, Control Chart, will show a powerful method to display these results on the Production Floor to make process control much more effective as the line operators can make process adjustments in real time to ensure the product always stays within specification.