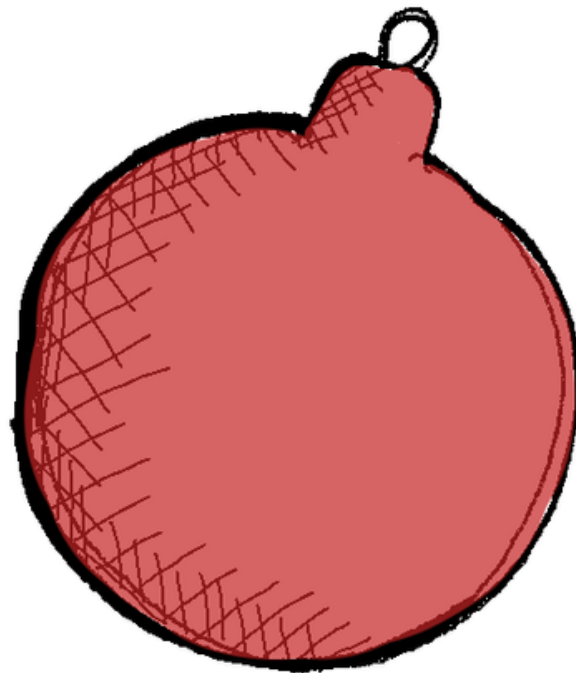


# PROCESS BEHAVIOR CHARTS

THE CHRISTMAS TALE



Charles Desneuf with Mark Graban

It's almost Christmas at  
NorthPoleBox.com, the express gift  
delivery start-up founded by Santa Claus.



But Christmas without decorations is not really Christmas, so Santa entrusts Brainy Elf with the execution of this crucial strategic objective!

We need to decorate our building, Brainy Elf. Can you hang Christmas ornaments above the gutter?



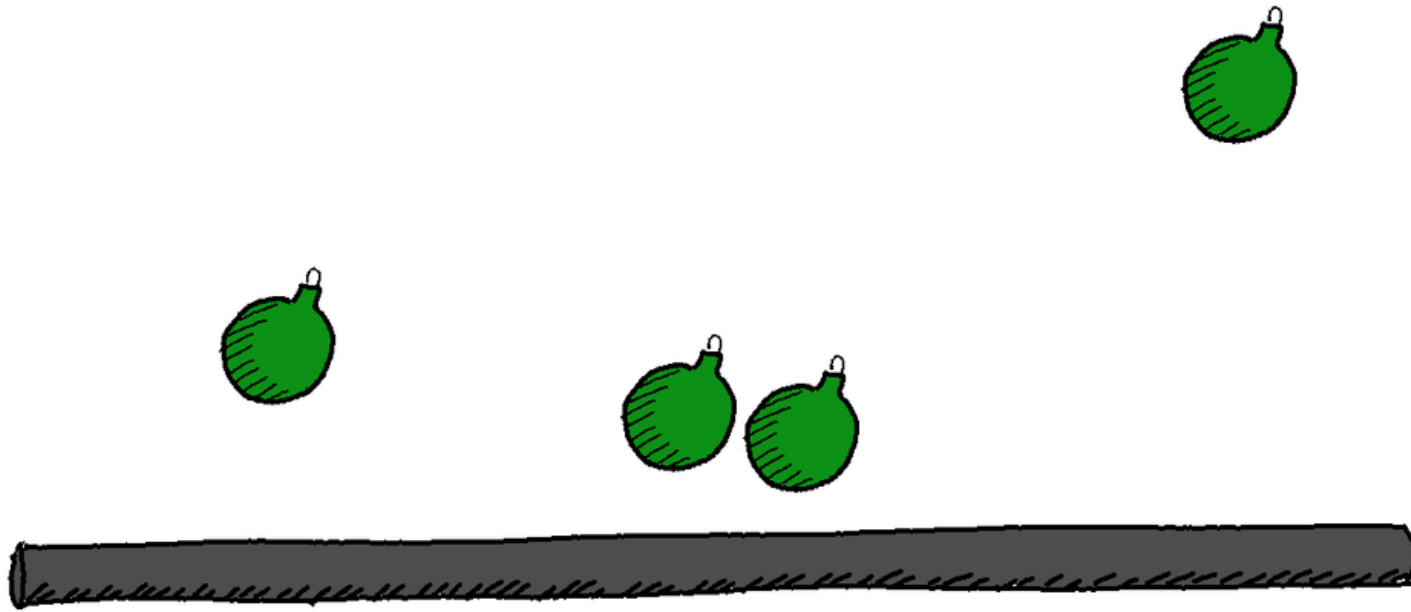
Yes, Boss!



Brainy Elf is not very tall, but he jumps very high to place the Christmas ornaments the best he can.



Sometimes he manages to hang the ornaments  
above the gutter to exceed Santa's target...



... but sometimes not.

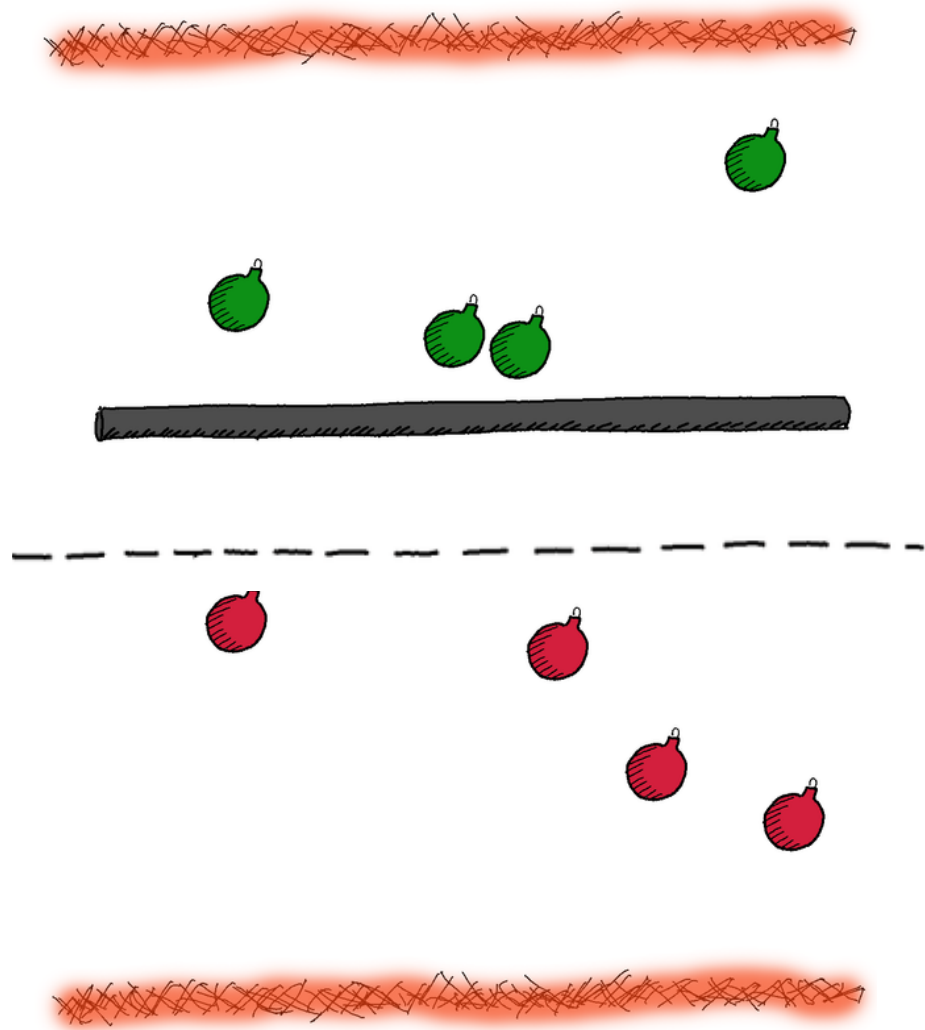
And thanks to the magic of Christmas, the  
ornaments change color automatically:  
green if they are above the gutter, red if below.

Santa Claus isn't very happy to see some ornaments below the gutter, so he gives Brainy Elf an inspiring pep talk:

You know it's really important for the building to look properly holly and jolly. That's our main objective, we can't miss this Christmas season. You have to try harder. Plus, I know you can do it since you've already put some ornaments over the gutter. Keep up your efforts!



On average, the ornaments are placed below the gutter target. Brainy Elf hangs some tinsel to mark his current average.



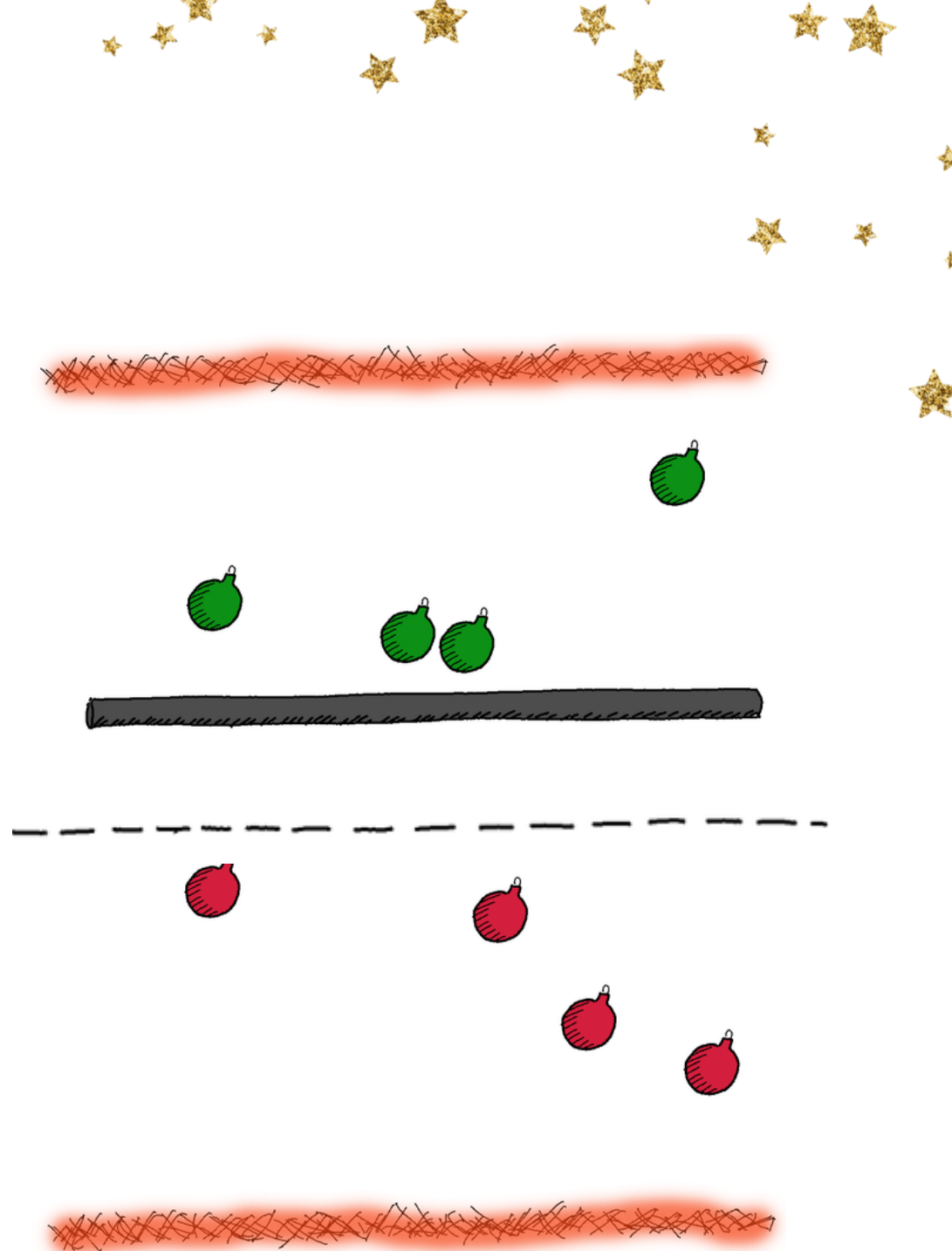
Brainy Elf jumps well, but there is variation in each jump. His jumps will predictably allow him to place ornaments between the top garland...

...and the bottom garland.

These two garlands represent the calculated Natural Process Limits.

One doesn't have to be super brainy to do the math.

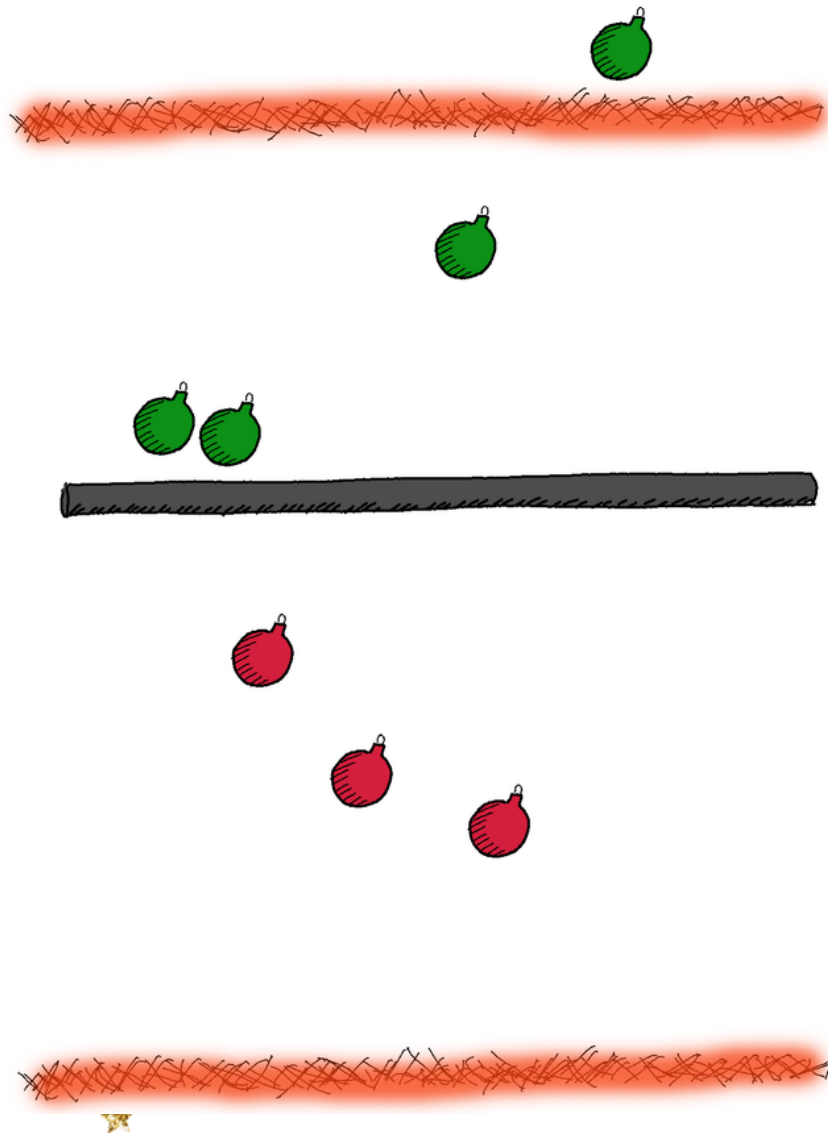
The limits show us that Brainy Elf's jumping is not capable of meeting Santa's target every time, no matter how hard Brainy Elf tries.



The rest of the ornaments will end up between these garlands, unless...



Brainy Elf has an idea! To improve performance, he climbs on one of Santa's reindeer to hang an ornament!



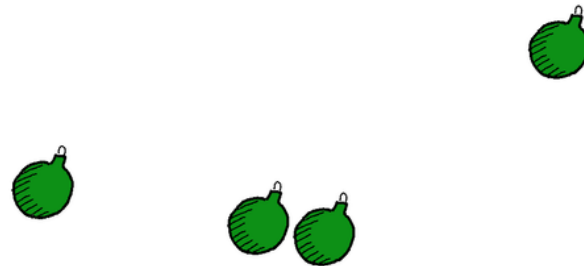
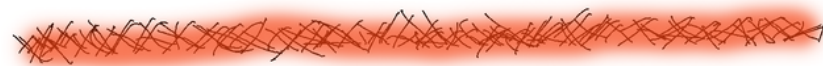
The ornament is even above the top garland!

Voilà!

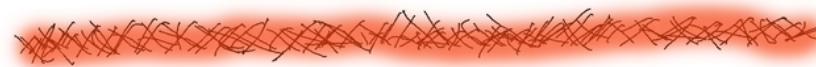
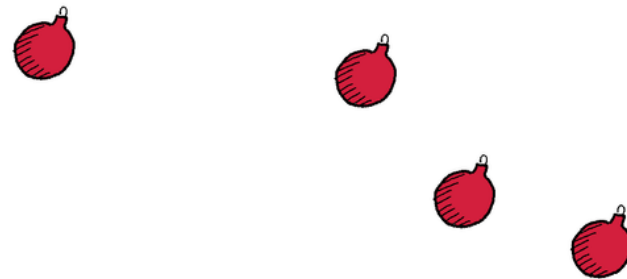
Bravo, Brainy Elf!

Unfortunately, the reindeer is too busy getting ready for Christmas Eve, so it refuses to let Brainy Elf ride on his back again.

So Brainy Elf is back to jumping alone...



... and continues hanging the ornaments between the two garlands.

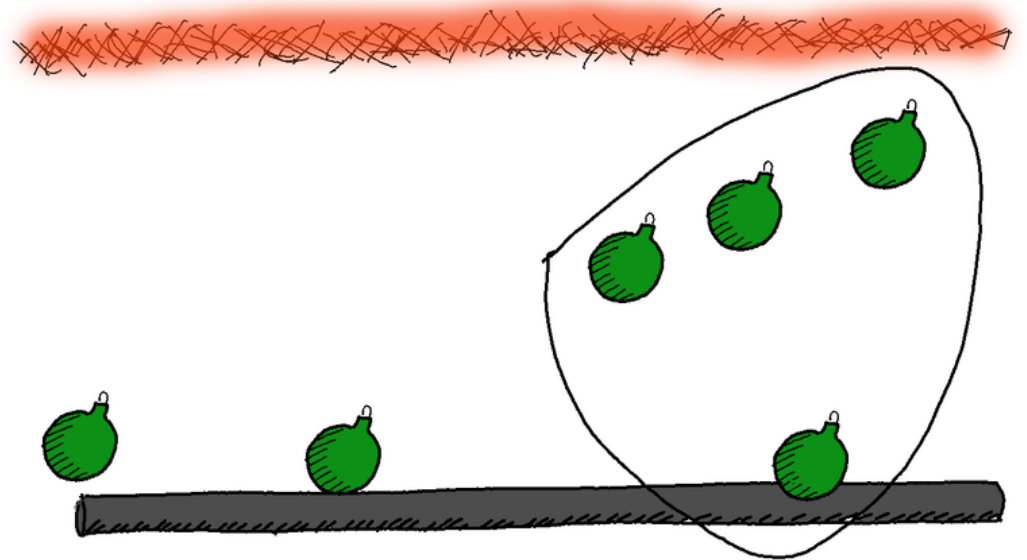


Nothing changes. Brainy Elf keeps getting the same range of results.

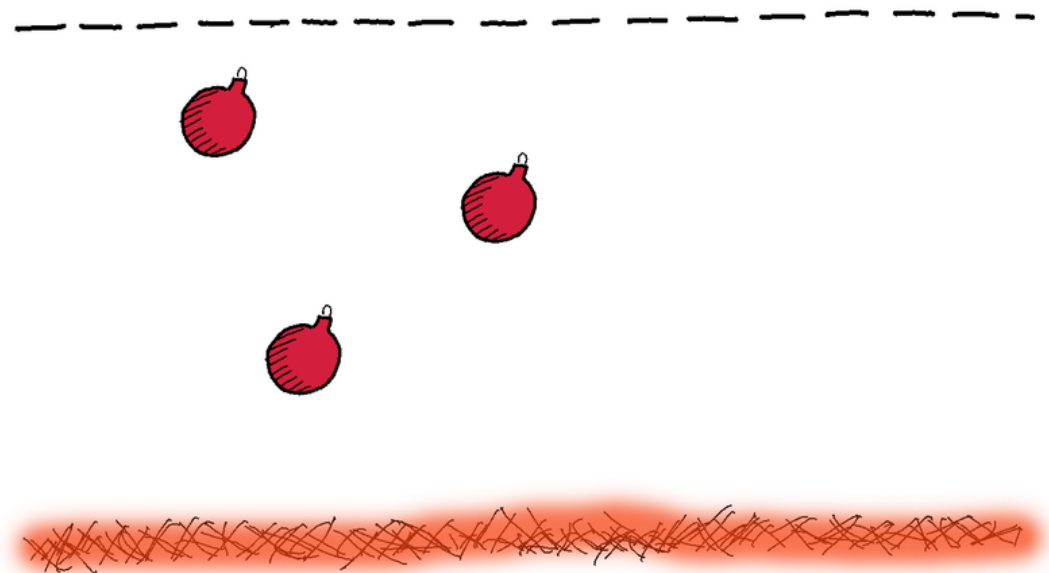
His colleague Burly Elf offers to help.



Get on my shoulders, Brainy Elf!



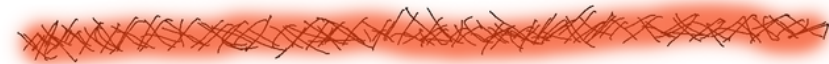
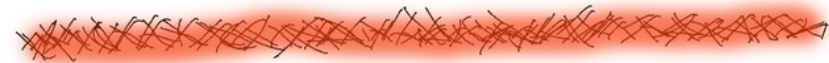
Together, they manage to put up several ornaments. Of the next 4 ornaments, 3 are closer to the top garland than they are to the center line between the two garlands. This wouldn't have been possible before.



The performance is much better!  
New system, new results!

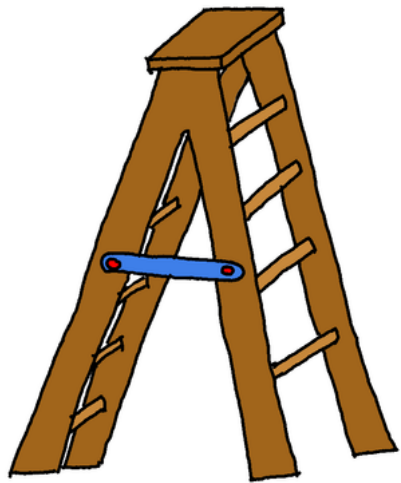
But poor Burly Elf is starting to have back pain, as much as he enjoys helping.

Brainy Elf starts jumping again on his own...



... and hangs the ornaments between the two garlands.

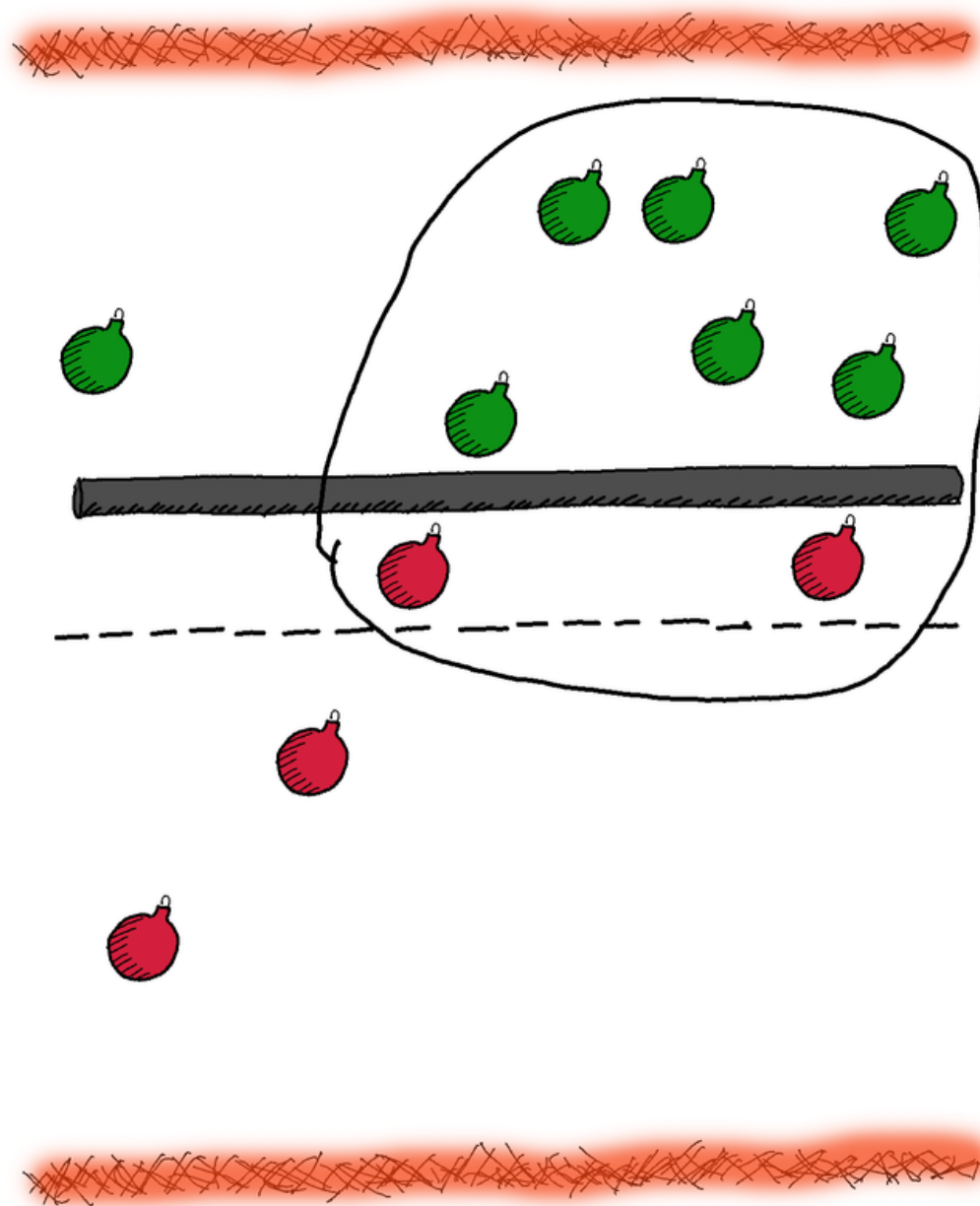
Brainy Elf's performance is driven by the system: old system, old results.



Brainy Elf finds a stepladder.  
Wouldn't that be the solution?

Perched on his stepladder,  
Brainy Elf manages to place 8  
ornaments in a row on the  
same side of the central line  
between the two garlands.

Santa will be pleased!  
Brainy Elf might get the  
promotion he wanted!



Brainy Elf explains everything he has  
tried to meet Santa's objective:

He jumped...



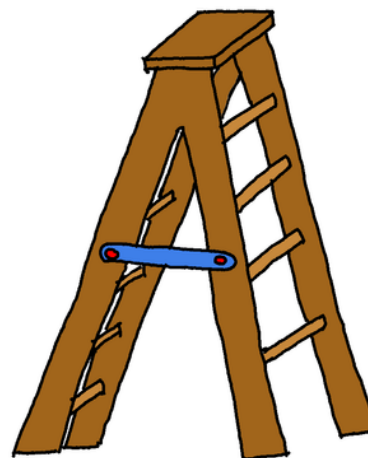
he climbed on a reindeer...



and on the shoulders of Burly Elf



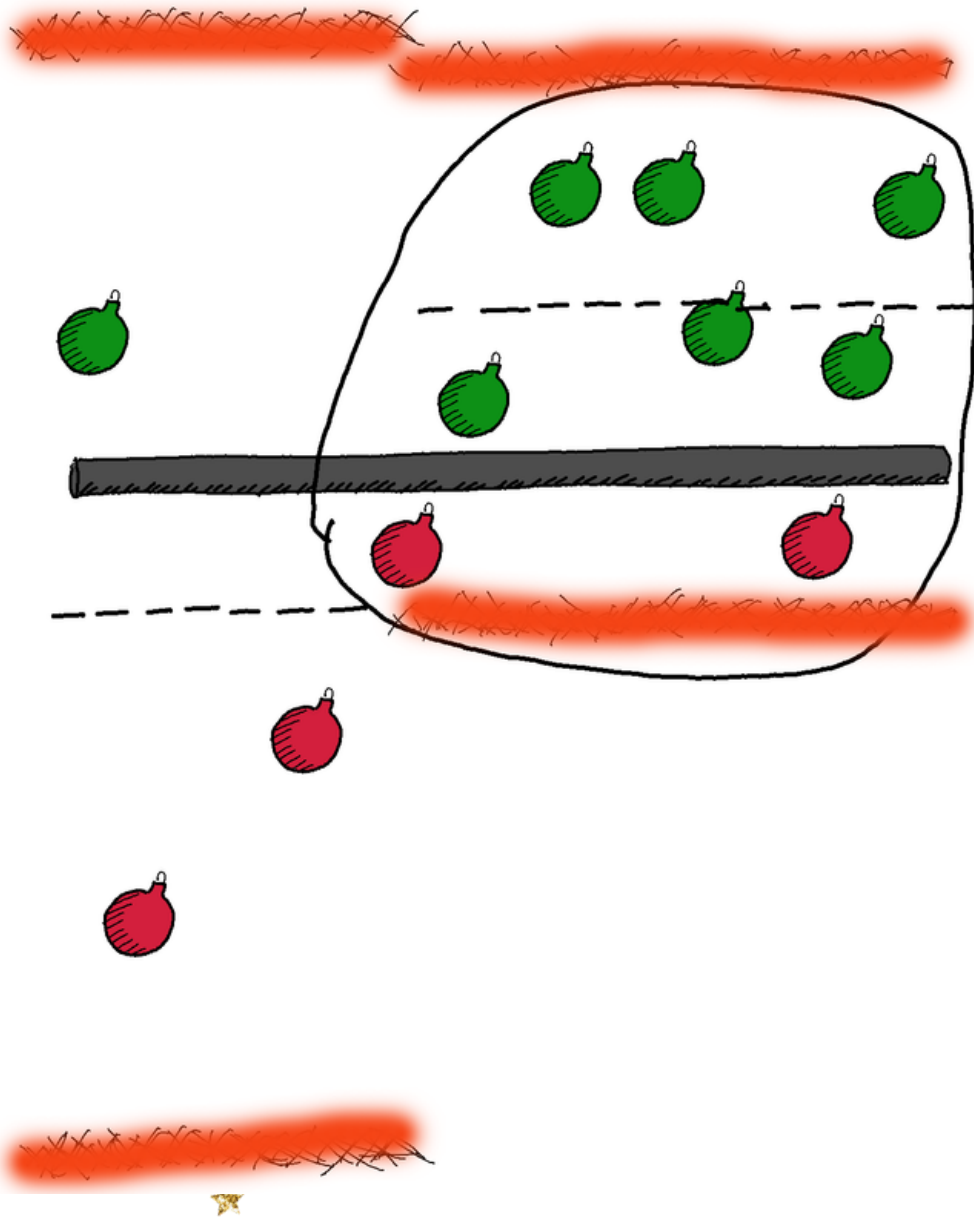
then on a stepladder!



Each time, we have seen the effects of Brainy Elf's attempts  
to improve. But, even if the stepladder improves the situation,  
the garlands would show us that there is a good chance that  
some ornaments will still go under the gutter...

The top garland and the bottom garland magically moved to indicate the new Natural Limits of the improved process.

Actually, Brainy Elf did the math.

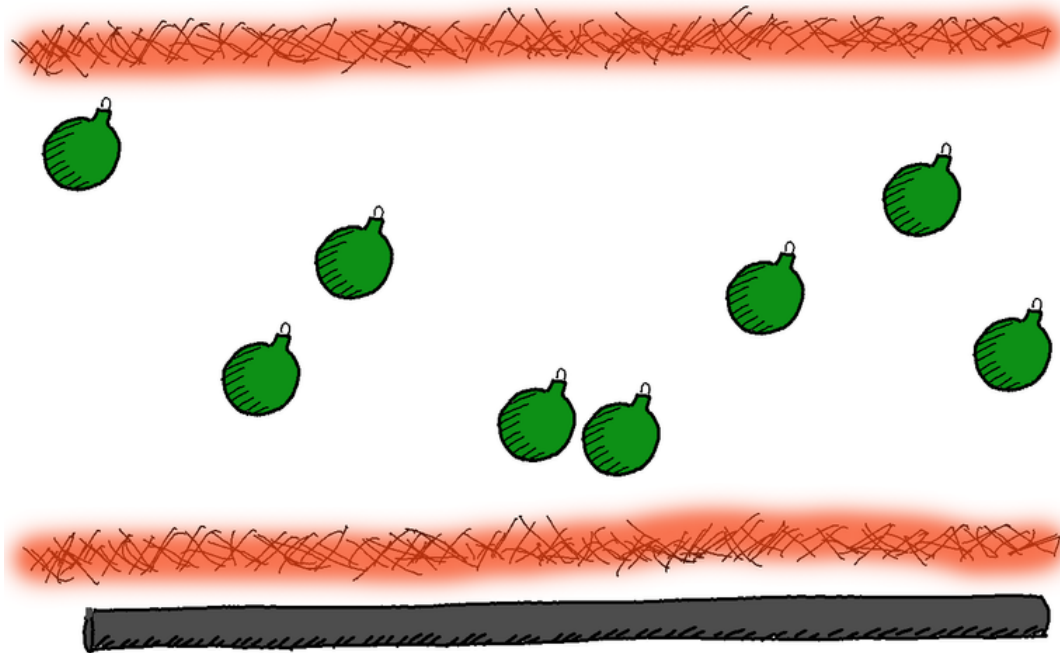


The new average placement level is now above the gutter target!

Unfortunately, the bottom garland is still below the gutter, which means that a few ornaments will still end up under the gutter over time, even with Brainy Elf's best efforts. The system is predictable, but not fully capable of meeting Santa's objective.

Brainy Elf and Santa Claus have one last idea!

What if Santa Claus helped Brainy Elf to hang the ornaments with his sleigh?

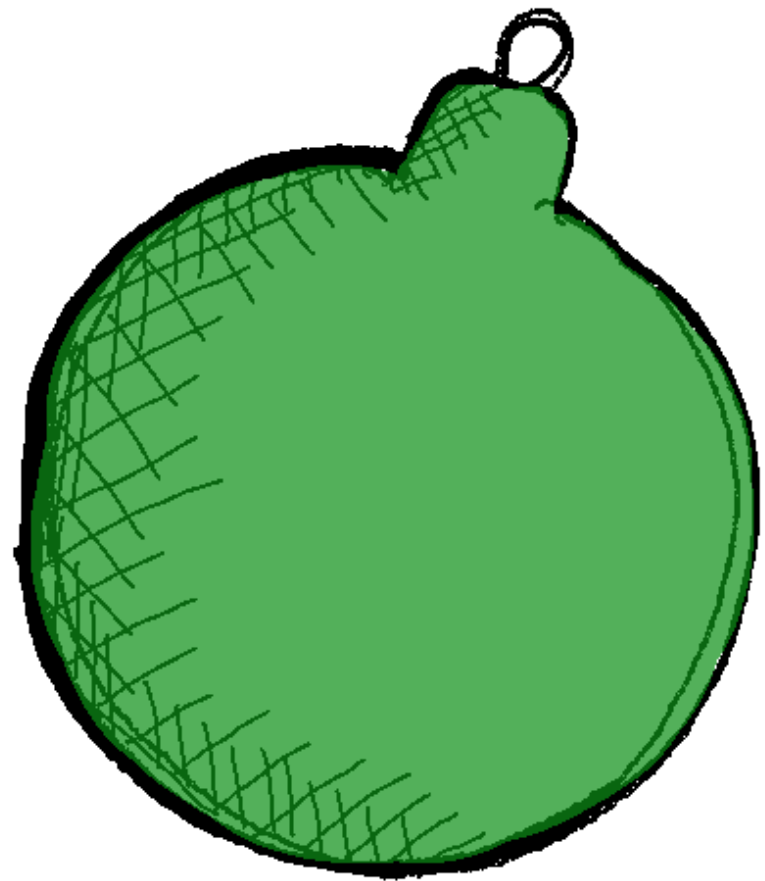


Together, they establish a new system. Now, the two garlands are above the gutter. They have a system that's both predictable and capable! Voilà!

We now know that as long as Santa Clause and Briany Elf use the sled, they will manage to put all the ornaments above the gutter!



Brainy Elf and Santa Claus now know how to predict what will happen in a system and how to detect a meaningful change.



They also learned that if you don't change the way you do something, you can't expect different results.

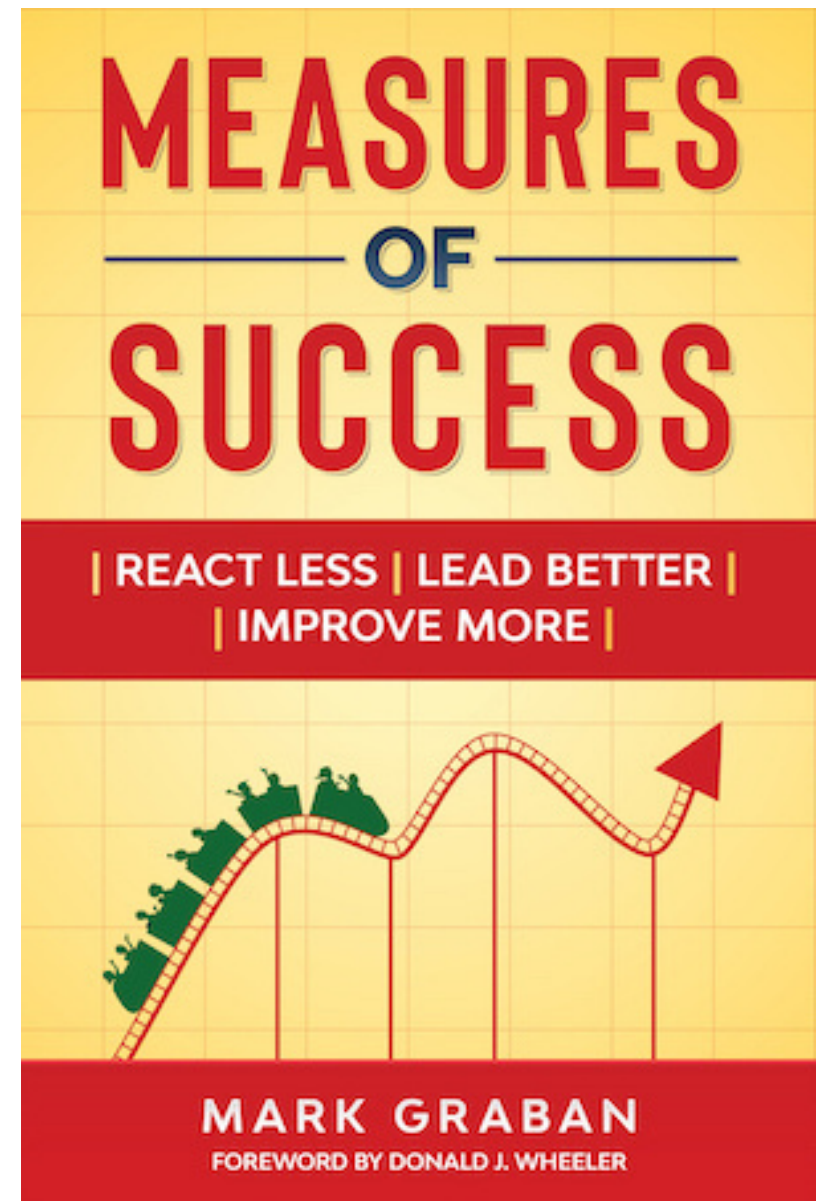
Did you understand this Christmas tale?

Do you want to know how to calculate the position of the top garland and the bottom garland?

Do you want to be able to predict the range of what your system will produce? And to know when the system has changed?

Do you want to understand why reacting every time a measurement doesn't suit you isn't necessarily a helpful strategy?

If so, we recommend reading "Measures of Success" by Mark Graban to learn how to use Process Behavior Chart:  
[www.MeasuresOfSuccessBook.com](http://www.MeasuresOfSuccessBook.com)



I'm sure this book will change the way you visualize and interpret data!

Acknowledgments by Mark Graban  
mark@markgraban.com

Merci beaucoup to Charles Desneuf for  
creating the original version of this delightful  
story in French.

contact@charlesdesneuf.com

Thank to Charles for sharing it on LinkedIn and  
thanks also for collaborating with me on the  
translation of the tale.

You can find both the French and English  
versions via [www.NorthPoleBox.com](http://www.NorthPoleBox.com).

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